SAFETY DATA SHEET

Section 1. PRODUCT AND COMPANY IDENTIFICATION

Product Name:	ABC Dry Chemical Fire Extinguishant
Other Identifiers:	Multi-purpose Dry Chemical
Product Code(s):	CH555, F13, F11
Model Code(s) of Extinguishers:	402, IS 18ABC, IS35ABC, IS 45ABC, 13ABC, V25ABC, VH25ABC, V30ABC, VH30ABC, V50ABC, VS50ABC, VS75ABC, V250ABC
Recommended Use:	Fire suppression, not for human or animal drug use.
Manufacturer:	AMEREX CORPORATION
Internet Address:	www.amerex-fire.com
Address:	7595 Gadsden Highway, P.O. Box 81 Trussville, AL 35173-0081
Company Telephone:	(205) 655-3271
E-mail Address:	info@amerex-fire.com
Emergency Contacts:	Chemtrec 1(800) 424-9300 or (703) 527–3887
Revised:	May, 2016

Section 2. HAZARDS IDENTIFICATION

GHS – Classification

Health	Environmental	Physical
Acute Toxicity: Category 5	None	None
Skin Corrosion/Irritation: Category 3	None	None
Skin Sensitization: NO	None	None
Eye: Category 2B	None	Warning
STOT – Category 3	None	Warning
Carcinogen: Category None	None	None

GHS – Label Symbol(s): **Exclamation Mark**

GHS – Word(s): **Warning**

Other Hazards Not Resulting in Classification: None

GHS – Hazard Phrases

GHS Hazard	GHS Codes(s)	Code Phrase(s)
Physical	None	
Health	H303 316 320 335	May be harmful if swallowed Causes mild skin irritation Causes eye irritation May cause respiratory irritation
Environmental	None	
Precautionary:		
General	P101	If medical advice is needed, have product container or label at hand
Prevention	261 264	Avoid breathing dust Wash hands and face thoroughly after handling
Response	P304+340 305+351+313 337+338 312	If inhaled, remove person to fresh air and keep comfortable for breathing. If in eyes, rinse cautiously with water for several minutes. Get immediate medical advice/attention (as appropriate). If eye irritation persists: remove contact lenses, if present and easy to do. Continue rinsing. Call a POISON CENTER/doctor if you feel unwell (as appropriate).
Storage	None	

Section 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	EC No.	REACH Reg. No.	CAS-No.	Weight %	Classification
Mono-ammonium phosphate	NA	NA	7722-76-1	90-97	NA
Fullers earth magnesium aluminum silicate	NA	Not Available	8031-18-3	>3	NA
Mica- potassium aluminum silicate	NA	Not Available	12001-26-2	1-2	NA
Silicone oil methyl hydrogen polysiloxane	NA	Not Available	63148-57-2	<1	NA
Calcium carbonate	215-279-6	Not Available	1317-65-3	<1	NA
Amorphous silica precipitated synthetic zeolite	262-373-8	Not Available	112926-00-8	<1	NA
Yellow 14 pigment – di-azo dye	228-767-9	Not Available	5468-75-7	<1	NA

Emergency overview: Light yellow, fine solid powder, odorless.

Adverse health effects and symptoms: Mild irritant to the respiratory system, eyes, and skin. Symptoms may include coughing, shortness of breath, and irritation of the lungs, eyes, and skin. Ingestion, although unlikely, may cause cramps, nausea and diarrhea.

Cut-off Levels

Chemical Name	Reproductive Toxicity	Carcinogenicity	Mutagenicity	Other Hazard Classes
Mono-ammonium Phosphate	NA	NA	NA	NA
Fullers earth magnesium aluminum silicate	NA	NA	NA	NA
Mica- potassium aluminum silicate	NA	NA	NA	NA
Silicone oil methyl hydrogen polysiloxane	NA	NA	NA	NA
Calcium carbonate	NA	NA	NA	NA
Amorphous silica precipitated synthetic zeolite	NA	NA	NA	NA
Yellow 14 pigment – di-azo dye	NA	NA	NA	NA

Section 4. FIRST AID MEASURES

Eye Exposure:	May cause irritation. Irrigate eyes with water and repeat until pain free. Seek medical attention if irritation develops, or if vision changes occur.
Skin Exposure:	May cause skin irritation. In case of contact, wash with plenty of soap and water. Seek medical attention if irritation persists.
Inhalation:	May cause irritation, along with coughing. If respiratory irritation or distress occurs, remove victim to fresh air. Seek medical attention if irritation persists.
Ingestion:	Overdose symptoms may include numbness or tingling in hands or feet, uneven heart rate, paralysis, feeling faint, chest pain or heavy feeling, pain spreading to the arm or shoulder, nausea, diarrhea, sweating, general ill feeling, or seizure (convulsions). If victim is conscious and alert, give 2-3 glasses of water to drink. If conscious, do not induce vomiting. Seek immediate medical attention. Do not leave victim unattended. To prevent aspiration of swallowed product, lay victim on side with head lower than waist.
Medical conditions possibly aggravated by exposure:	Inhalation of product may aggravate existing chronic respiratory problems such as asthma, emphysema, or bronchitis. Skin contact may aggravate existing skin disease. Chronic overexposure may cause pneumoconiosis (“dusty lung” disease).

Section 5. FIRE-FIGHTING MEASURES

Flammable Properties:	Not flammable
Flash Point:	Not determined
Suitable Extinguishing Media:	Non-combustible. Use extinguishing media suitable for surrounding conditions.
Hazardous Combustion Products:	Carbon oxides
Explosion Data:	
Sensitivity to Mechanical Impact:	Not sensitive
Sensitivity to Static Discharge:	Not sensitive
Unusual fire/explosion hazards:	In a fire, this material may decompose, releasing oxides of carbon, potassium and nitrogen (see Section 10).
Protective Equipment and Precautions for Firefighters:	As in any fire, wear self-contained breathing apparatus pressure-demand. NIOSH (approved or equivalent), and full protective gear.

Section 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Avoid contact with skin, eyes, and clothing.
Personal Protective Equipment:	Minimum - safety glasses, gloves, and a dust respirator.
Emergency Procedures:	NA
Methods for Containment:	Prevent further leakage or spillage if safe to do so.
Methods for Clean Up:	Avoid dust formation. Clean up released material using vacuum or wet sweep and shovel to minimize generation of dust. Bag and transfer to properly labeled containers. Ventilate area and wash spill site after material pickup is complete.
Other:	If product is contaminated, use PPE and containment appropriate to the nature of the most toxic chemical/material in the mixture.

Section 7. HANDLING AND STORAGE

Personal Precautions: Use appropriate PPE when handling or maintaining equipment, and wash thoroughly after handling (see Section 8).

Conditions for Safe Storage: Keep product in original container or extinguisher. Contents may be under pressure – inspect extinguisher consistent with product labeling to ensure container integrity.

Incompatible Products: Do not mix with other extinguishing agents, particularly potassium bicarbonate and sodium bicarbonate. Incompatible with strong oxidizing agents and strong acids. Do not store in high humidity. Do not combine with chlorine compounds.

Section 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Chemical Name	OSHA PEL	ACGIH TLV	DFG MAK *	EU BLV
Mono-ammonium phosphate	PNOC** Total dust, 15 mg/m^3 Respirable fraction, 5 mg/m^3	PNOC Total dust, 10 mg/m^3 Respirable fraction, 3 mg/m^3	PNOC Total dust, 4 mg/m^3 Respirable fraction, 1.5 mg/m^3	NA
Mica	6 mg/m^3	3 mg/m3	-------	NA
Fullers Earth	PNOC** Total dust, 15 mg/m^3 Respirable fraction, 5 mg/m^3	PNOC Total dust, 10 mg/m^3 Respirable fraction, 3 mg/m^3	PNOC Total dust, 4 mg/m^3 Respirable fraction, 1.5 mg/m^3	
Silicone oil	NR**	NR		
Calcium carbonate	PNOC Total dust, 15 mg/m^3 Respirable fraction, 5 mg/m^3	PNOC Total dust, 10 mg/m^3 Respirable fraction, 3 mg/m^3	-------	NA
Amorphous silica	143 mg/m^3 or 80 mg/m^3 / % SiO_2	10 mg/m^3	4 mg/m^3	NA
Yellow 14 pigment	NR	NR	NR	NA

*German regulatory limits **PNOC = Particulates not otherwise classified (ACGIH) also known as Particulates not otherwise regulated (OSHA) *** NR = Not Regulated. All values are 8 hour time weighted average concentrations.

Engineering Controls: Showers
Eyewash stations
Ventilation systems

Personal Protective Equipment – PPE Code E:

The need for respiratory protection is not probable during short-term exposure. PPE use during production process must be independently evaluated.




Eye/Face Protection:	Tightly fitting safety goggles
Skin and Body Protection:	Wear protective gloves/coveralls
Respiratory Protection:	If exposure limits are exceeded or irritation is experienced, NIOSH approved respiratory protection should be worn. Use P100 respirators for limited exposure, use air-purifying respirator (APR) with high efficiency particulate air (HEPA) filters for prolonged exposure. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current safety and health requirements. The need for respiratory protection is not likely for short-term use in well ventilated areas.
Hygiene Measures:	Good personal hygiene practice is essential, such as avoiding food, tobacco products, or other hand-to-mouth contact when handling. Wash thoroughly after handling.

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Light yellow powder, finely divided odorless solid
Molecular Weight:	115.03
Odor:	Odorless
Odor Threshold:	No information available
Decomposition Temperature ^{o}C:	100 - 120
Freezing Point ^{o}C:	No information available
Initial Boiling Point ^{o}C:	No information available
Physical State:	Crystalline Powder
pH:	Approximately 4.4 to 4.9
Flash Point ^{o}C:	None

Autoignition Temperature ^{o}C:	None
Boiling Point/Range ^{o}C:	Not Applicable
Melting Point/Range ^{o}C:	190 C
Flammability Limits in Air ^{o}C:	Upper – Not Flammable; Lower-Not Flammable
Explosive Properties:	None
Oxidizing Properties:	None
Volatile Component (%vol)	Not Applicable
Evaporation Rate:	Not Applicable
MMHG @ 37.8 C :	Not Applicable
Vapor Density:	Not Applicable
Vapor Pressure:	Not Applicable
Specific gravity:	Approximately 1.8 at 25 C
Solubility:	40.4 g/100 ml
Partition Coefficient:	No Information Available
Viscosity:	Not Applicable

Section 10. STABILITY AND REACTIVITY

Stability:	Stable under recommended storage and handling conditions.
Incompatibles:	Strong oxidizing agents; Strong acids; sodium hypochlorite and chlorine compounds. Protect from moisture
Conditions to Avoid:	Storage or handling near incompatibles.
Hazardous Decomposition Products:	Carbon, nitrogen, and potassium oxides. Heat of fire may release carbon monoxide.
Possibility of Hazardous Reactions:	None
Hazardous Polymerization	Does not occur

Section 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure:	Inhalation, skin and eye contact.
Symptoms:	
Inhalation:	Irritation, coughing.
Eyes:	Irritation.
Skin:	Irritation.
Acute Toxicity:	Relatively non-toxic.
Chronic Toxicity:	
Short-term Exposure:	None known.
Long-term Exposure:	As with all dusts, pneumoconiosis, or “dusty lung” disease, may result from chronic exposure.

Acute Toxicity Values - Health

Chemical Name	LD50		LC50 (Inhalation)
	Oral	Dermal	
Mono-ammonium phosphate	5750 mg/kg (rat)	>7940 mg/kg (rabbit)	Not available
Mica	None	None	None
Fullers Earth	None	None	None
Silicone oil	None	None	None
Calcium carbonate	6450 mg/kg (rat)	500 mg/24 hr (rabbit)	Not available
Amorphous silica	>5000 mg/kg (rat)	>2000 mg/kg (rabbit)	>2.2 mg/L (rat)
Yellow 14 pigment	>17000 mg/kg (rat)	>3000 mg/kg (rat)	>4448 mg/m3 (rat)

Reproductive Toxicity: This product's ingredients are not known to have reproductive or teratogenic effects.

Target Organs and Effects (TOST): Respiratory system (mild irritant). This product is a mild irritant to epithelial tissue, (eyes, mucous membranes, skin) and may aggravate dermatitis. No information was found indicating the product causes sensitization.

Other Toxicity Categories

Chemical Name	Germ Cell Mutagenicity	Carcino-genicity	Repro-ductive	TOST Single Exp	TOST Repeated Exp	Aspiration
Potassium Bicarbonate	None	None	None	Cat 3	None	None
Fullers earth	None	None	None	None	None	None
Mica	None	None	None	None	None	None
Silicone oil	None	None	None	None	None	None
Calcium carbonate	None	None	None	None	None	None
Amorphous silica	None	None	None	None	None	None
Yellow 14 pigment	None	None	None	None	None	None

Section 12. ECOLOGICAL INFORMATION

Ecotoxicity: Negative effects unknown. Provides nutrient nitrogen and phosphorus to plant life.

Persistence/Degradability: Degrades rapidly in humid/wet environment.

Bioaccummulation: Extent unknown.

Mobility in soil: Slow evaporation rate; water soluble, may leach to groundwater.

Other Adverse Ecological Effects: No other known effects at this time.

Aquatic Toxicity Values – Environment – None Known

Chemical Name	Acute (LC50)	Chronic (LC50)
Mono-ammonium phosphate	N/A	N/A
Mica	N/A	N/A
Fullers Earth	N/A	N/A
Silicone oil	N/A	N/A
Calcium carbonate	N/A	N/A
Amorphous silica	N/A	N/A
Yellow 14 pigment	N/A	N/A

Section 13. DISPOSAL CONSIDERATIONS

Safe Handling	Use appropriate PPE when handling, and wash thoroughly after handling (see Section 8).
Waste Disposal Considerations	Dispose in accordance with federal, state, and local regulations.
Contaminated Packaging	Dispose in accordance with federal, state, and local regulations.

NOTES:
This product is not a RCRA characteristically hazardous or listed hazardous waste. Dispose of according to state or local laws, which may be more restrictive than federal laws or regulations. Used product may be altered or contaminated, creating different disposal considerations.

Section 14. TRANSPORT INFORMATION

UN Number:	NA
UN Proper Shipping Name:	NA
Transport Hazard Class:	NA
Packing Group:	NA
Marine Pollutant?:	NO
IATA	Not regulated
DOT	Not regulated

NOTES:
This product is not defined as a hazardous material under U.S. Department of Transportation (DOT) 49 CFR 172, or by Transport Canada “Transportation of Dangerous Goods” regulations.
Special Precautions for Shipping:

If shipped in a stored pressure-type fire extinguisher, and pressurized with a non-flammable, non-toxic inert expellant gas, the fire extinguisher is considered a hazardous material by the US Department of Transportation and Transport Canada. The proper shipping name shall be FIRE EXTINGUISHER and the UN designation is UN 1044. The DOT hazard class is Limited Quantity when shipped via highway or rail. Use a Non-Flammable Gas label (class 2.2) when shipping via air.

Section 15. REGULATORY INFORMATION

International Inventory Status: All ingredients are on the following inventories

Country(ies)	Agency	Status
United States of America	TSCA	Yes
Canada	DSL	Yes
Europe	EINECS/ELINCS	Yes
Australia	AICS	Yes
Japan	MITI	Yes
South Korea	KECL	Yes

REACH Title VII Restrictions: No information available

Chemical Name	Dangerous Substances	Organic Solvents	Harmful Substances Whose Names Are to be Indicated on Label	Pollution Release and Transfer Registry (Class II)	Pollution Release and Transfer Registry (Class I)	Poison and Deleterious Substances Control Law
Mono-ammonium Phosphate	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

Component	ISHA – Harmful Substances Prohibited for Manufacturing, Importing, Transferring, or Supplying	ISHA – Harmful Substances Requiring Permission	Toxic Chemical Classification Listing (TCCL) – Toxic Chemicals	Toxic Release Inventory (TRI) – Group I	Toxic Release Inventory (TRI) – Group II
Mono-ammonium Phosphate 7722-76-1	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Fullers earth magnesium aluminum silicate 8031-18-3 (>4)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Mica-potassium aluminum silicate 120001-26-2 (>2)	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

Calcium carbonate 471-34-1	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Amorphous silica 69012-64-2	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable
Yellow 14 pigment 5468-75-7	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

European Risk and Safety phrases:

EU Classification:	XN	Irritant
R Phrases:	20	Harmful by inhalation.
	36/37	Irritating to eyes, respiratory system.
S Phrases:	22	Do not breath dust.
	24/25	Avoid contact with skin and eyes.
	26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
	36	Wear suitable protective clothing.

U.S. Federal Regulatory Information:

SARA 313:
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) - This product does not contain and chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.
None of the chemicals in this product are under SARA reporting requirements or have SARA threshold planning quantities (TPQs) or CERCLA reportable quantities (RQs), or are regulated under TSCA 8(d).

SARA 311/312 Hazard Categories:

Acute Health Hazard	Yes
Chronic Health Hazard	No
Fire Hazard	No
Sudden Release of Pressure Hazard-*	Yes
Reactive Hazard	No

* - Only applicable if material is in a pressurized extinguisher.

Clean Water/Clean Air Acts:
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42) or Clean Air Act, Section 112, Hazardous Air Pollutants (HAPs) (see 40 CFR 61) and Section 112 of the Clean Air Act Amendments of 1990.

U.S. State Regulatory Information:

Chemicals in this product are covered under specific State regulations, as denoted below:

Alaska - Designated Toxic and Hazardous Substances: None
California – Permissible Exposure Limits for Chemical Contaminants: None
Florida – Substance List: Mica Dust
Illinois – Toxic Substance List: None
Kansas – Section 302/303 List: None
Massachusetts – Substance List: Mica Dust
Minnesota – List of Hazardous Substances: None
Missouri – Employer Information/Toxic Substance List: None
New Jersey – Right to Know Hazardous Substance List: None
North Dakota – List of Hazardous Chemicals, Reportable Quantities: None
Pennsylvania – Hazardous Substance List: None
Rhode Island – Hazardous Substance List: Mica Dust
Texas – Hazardous Substance List: No
West Virginia – Hazardous Substance List: None
Wisconsin – Toxic and Hazardous Substances: None

California Proposition 65: No component is listed on the California Proposition 65 list.

Other:

Mexico – Grade	No component listed
Canada – WHMIS Hazard Class	No component listed

Section 16. OTHER INFORMATION

This SDS conforms to requirements under U.S., U.K., Canadian, Australian, and EU regulations or standards, and conforms to the proposed 2003 ANSI Z400.1 format.

Issuing Date	17-June-2012
Revision Date	4-May-2016
Revision Notes	None

The information herein is given in good faith but no warranty, expressed or implied, is made.
Updated by William F. Garvin, CIH.

SAFETY DATA SHEET

This Safety Data Sheet (SDS) is for welding consumables and related products and may be used to comply with OSHA's Hazard Communication standard, 29 CFR 1910.1200, and Superfund Amendments and Reauthorization Act (SARA) of 1986 Public Law 99-499 and Canadian Workplace Hazardous Materials Information System (WHMIS) per Health Canada administrative policy. The OSHA standard must be consulted for specific requirements. This Safety Data Sheet complies with ISO 11014-1 and ANSI Z400.1. This document is translated in several languages and is available on our website at www.hobartbrothers.com, from your sales representative or by calling customer service at 1 (937) 332-4000.

SECTION 1 – IDENTIFICATION

Manufacturer/Supplier
Name: HOBART BROTHERS LLC
Address: 101 TRADE SQUARE EAST, TROY, OH 45373
Canadian Address: 2570 NORTH TALBOT ROAD, OLDCASTLE, ONTARIO, CANADA N0R1L0
Website: www.hobartbrothers.com

Telephone No: +1 (937) 332-4000
Emergency No: +1 (800) 424-9300
Canada: 1 (519) 737-3053

Product Type: ALUMINUM ALLOY SOLID WIRE WELDING ELECTRODE AND RODS

Trade Name: MaxalMig and MaxalTig: 1100, 4043, 4047, 4145, 4943, 5025, 5087, 5183, 5356, 5554 and 5556

AWS Specification: None

Recommended Use: ALUMINUM ALLOY SOLID WIRE WELDING ELECTRODE AND RODS

Restrictions on Use: Use only as indicated for welding operations

SECTION 2 – IDENTIFICATION OF HAZARDS

HAZARD CLASSIFICATION – The products described in Section 1 are not classified as hazardous according to applicable GHS hazard classification criteria as required and defined in OSHA Hazard Communication Standard (29 CFR Part 1910.1200).

LABEL ELEMENTS: **Hazard Symbol** – No symbol required
Hazard Statement – Not applicable
Signal Word – No signal word required
Precautionary Statement – Not Applicable

HAZARDS NOT OTHERWISE CLASSIFIED

WARNING! - Avoid breathing welding fumes and gases, they may be dangerous to your health. Always use adequate ventilation. Always use appropriate personal protective equipment.
PRIMARY ROUTES OF ENTRY: Respiratory System, Eyes and/or Skin.
ELECTRIC SHOCK: Arc welding and associated processes can kill. See Section 8.
ARC RAYS: The welding arc can injure eyes and burn skin.
FUMES AND GASES: Can be dangerous to your health.

Welding fumes and gases cannot be classified simply. The composition and quantity of both are dependent upon the metal being welded, the process, procedures and electrodes used. Most fume ingredients are present as complex oxides and compounds and not as pure metals. When the electrode is consumed, the fume and gas decomposition products generated are different in percent and form from the ingredients listed in Section 3. Decomposition products of normal operation include those originating from the volatilization, reaction or oxidation, plus those from the base metal and coating, etc., of the materials shown in Section 3 of this Safety Data Sheet. Monitor for the component materials identified in the list in Section 3.

Fumes from the use of this product may contain complex oxides or compounds of the following elements and molecules: amorphous silica fume, chromium and manganese. Other reasonably expected constituents of the fume would also include complex oxides of iron and silicon. Gaseous reaction products may include carbon monoxide and carbon dioxide. Ozone and nitrogen oxides may be formed by the radiation from the arc. Other conditions which also influence the composition and quantity of the fumes and gases to which workers may be exposed include: coatings on the metal being welded (such as paint, plating or galvanizing), the number of welders and the volume of the work area, the quality and amount of ventilation, the position of the welder's head with respect to the fume plume, as well as the presence of contaminants in the atmosphere (such as chlorinated hydrocarbon vapors from cleaning and degreasing activities). One recommended way to determine the composition and quantity of fumes and gases to which workers are exposed is to take an air sample inside the welder's helmet if worn or in the worker's breathing zone. See ANSI/AWS F1.1 and F1.3, available from the "American Welding Society", 8669 NW 36 Street, # 130, Miami, Florida 33166-6672, Phone: 800-443-9353 or 305-443-9353.

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS

IMPORTANT - This section covers the hazardous materials from which this product is manufactured. This data has been classified according to the criteria of the Globally Harmonized System of Classification and Labeling of Chemicals (GHS) as required and defined in OSHA Hazard Communication Standard (29 CFR Part 1910.1200). The fumes and gases produced during welding with normal use of this product are addressed in Section 8.

INGREDIENT	CAS NO.	EINECS[r]	% Weight	GHS Classification(s)	GHS HAZARD STATEMENTS (See Section 16 for Complete Phrases)
ALUMINUM	7429-90-5	231-072-3	80-99.7	**Powder (pyrophoric):** **- Pyr. Sol. 1[(1)]** **-Water-react. 2[(2)]** **Powder (Stabilized):** **-Flam. Sol. 1[(3)]** **-Water-react. 2[(2)]**	**H250** **H261** **H228** **H261**
CHROMIUM (metal)	7440-47-3	231-157-5	0-0.5	**NONE**	
COPPER	7440-50-8	231-159-6	0-5	**NONE**	
IRON	7439-89-6	231-096-4	0-1	**NONE**	
MAGNESIUM	7439-95-4	231-104-6	0-6	**Powder (pyrophoric):** **-Pyr. Sol. 1[(1)]** **-Water-react. 1[(2)]**	**H250** **H260**

SAFETY DATA SHEET

				Powder or turnings: **-Flam. Sol. 1[3]** **-Self-heat. 1[4]** **-Water-react. 2[2]**	**H228** **H252** **H261**
MANGANESE	7439-96-5	231-105-1	0-2	**- Acute Tox. 4 (Inhalation)[5]** **- Acute Tox. 4 (Oral)[5]** **- STOT RE 1[6]**	**H332** **H302** **H372**
SCANDIUM	7440-20-2	231-129-2	0-0.5	**NONE**	
(Amorphous Silica Fume)	69012-64-2	273-761-1	---	**NONE**	
SILICON	7440-21-3	231-130-8	0-14	**NONE**	
TITANIUM	7440-32-6	231-142-3	0-0.2	**NONE**	
TITANIUM DIOXIDE (Fume)	13463-67-7	236-675-5	--	**- Carc. 2[7]**	**H351**
ZINC	7440-66-6	231-175-3	0-0.25	**Powder (pyrophoric):** **- Pyr. Sol. 1[1]** **- Water-react. 1[2]**	 **H250** **H260**
ZIRCONIUM	7440-67-7	231-176-9	0-0.2	**- Pyr. Sol. 1[1]** **- Water-react. 1[2]**	**H250** **H260**
HEXAVALENT CHROMIUM [CHROMIUM (VI) TRIOXIDE] (Fume constituent)	1333-82-0	215-607-8	Varies	**- Ox. Sol. 1[8]** **- Carc. 1A[7]** **- Muta. 1B[9]** **- Repr. Tox. 2[10]** **- Acute Tox. 2 (Inhalation)[5]** **- Acute Tox. 3 (Skin & Oral)[5]** **- STOT RE 1[6]** **- Skin Corr. 1A[11]** **- Skin Sens. 1[12]** **- Resp. Sens. 1[13]** **- Aquatic Acute 1** **- Aquatic Chronic 1**	**H271** **H350** **H340** **H361f** **H330** **H311, H301** **H372** **H314** **H317** **H334, H317** **H400** **H410**

--- Dashes indicate the ingredient is not present within the group of products **Γ** – European Inventory of Existing Commercial Chemical Substances Number **(1)** Pyrophoric solid (Cat. 1) **(2)** Substance or mixture which in contact with water emits flammable gases (Cat. 1, 2 and 3) **(3)** Flammable solid (Cat. 1 and 2) **(4)** Self-heating substance or mixture (Cat. 1 and 2) **(5)** Acute toxicity (Cat. 1, 2, 3 and 4) **(6)** Specific target organ toxicity (STOT) – repeated exposure (Cat. 1 and 2) **(7)** Carcinogenicity (Cat. 1A, 1B and 2) **(8)** Oxidizing solid (Cat. 1, 2 and 3) **(9)** Germ cell mutagenicity (Cat. 1A, 1B and 2) **(10)** Reproductive toxicity (Cat. 1A, 1B and 2) **(11)** Skin corrosion/irritation (Cat. 1, 1A, 1B, 1C and 2) **(12)** Skin sensitization (Cat. 1, Sub-cat. 1A and 1B) **(13)** Respiratory sensitization (Cat. 1, Sub-cat. 1A and 1B)

SECTION 4 – FIRST AID MEASURES

INGESTION: Not an expected route of exposure. Do not eat, drink, or smoke while welding; wash hands thoroughly before performing these activities. If symptoms develop, seek medical attention at once.
INHALATION during welding: If breathing is difficult, provide fresh air and contact physician. If breathing has stopped, perform artificial respiration and obtain medical assistance at once.
SKIN CONTACT during welding: Remove contaminated clothing and wash the skin thoroughly with soap and water. If symptoms develop, seek medical attention at once.
EYE CONTACT during welding: Dust or fume from this product should be flushed from the eyes with copious amounts of clean, tepid water until victim is transported to an emergency medical facility. Do not allow victim to rub or keep eyes tightly closed. Obtain medical assistance at once.
Arc rays can injure eyes. If exposed to arc rays, move victim to dark room, remove contact lenses as necessary for treatment, cover eyes with a padded dressing and rest. Obtain medical assistance if symptoms persist.

Section 11 of this SDS covers the acute effects of overexposure to the various ingredients within the welding consumable. Section 8 of this SDS lists the exposure limits and covers methods for protecting yourself and your co-workers.

SECTION 5 – FIRE-FIGHTING MEASURES

Fire Hazards: Welding consumables applicable to this sheet as shipped are nonreactive, nonflammable, non-explosive and essentially nonhazardous until welded.

Welding arcs and sparks can ignite combustibles and flammable products. If there are flammable materials, including fuel or hydraulic lines, in the work area and the worker cannot move the work or the flammable material, a fire-resistant shield such as a piece of sheet metal or fire resistant blanket should be placed over the flammable material. If welding work is conducted within 35 feet or so of flammable materials, station a responsible person in the work zone to act as fire watcher to observe where sparks are flying and to grab an extinguisher or sound the alarm if needed.
Unused welding consumables may remain hot for a period of time after completion of a welding process. See American National Standard Institute (ANSI) Z49.1 for further general safety information on the use and handling of welding consumables and associated procedures.
Suitable Extinguishing Media: This product is essentially nonflammable until welded; therefore, use a suitable extinguishing agent for a surrounding fire.
Unsuitable Extinguishing Media: None known.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

In the case of a release of solid welding consumable products, solid objects can be picked up and placed into a disposal container. If airborne dust and/or fume is present, use adequate engineering controls and, if needed, personal protection to prevent overexposure. Refer to recommendations in Section 8. Wear proper personal protective equipment while handling. Do not discard as general trash.

SECTION 7 - HANDLING AND STORAGE

HANDLING: No specific requirements in the form supplied. Handle with care to avoid cuts. Wear gloves when handling welding consumables. Avoid exposure to dust. Do not ingest. Some individuals can develop an allergic reaction to certain materials. Retain all warning and product labels.
STORAGE: Keep separate from acids and strong bases to prevent possible chemical reactions.

SAFETY DATA SHEET

SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION

Read and understand the instructions and the labels on the packaging. Welding fumes do not have a specific OSHA PEL (Permissible Exposure Limit) or ACGIH TLV (Threshold Limit Value). The OSHA PEL for Particulates – Not Otherwise Regulated (PNOR) is 5 mg/m³ – Respirable Fraction, 15 mg/m³ – Total Dust. The ACGIH TLV for Particles – Not Otherwise Specified (PNOS) is 3 mg/m³ – Respirable Particles, 10 mg/m³ – Inhalable Particles. The individual complex compounds within the fume may have a lower OSHA PEL or ACGIH TLV than the OSHA PNOR and ACGIH PNOS. An Industrial Hygienist, the OSHA PELs for Air Contaminants (29 CFR 1910.1000), and the ACGIH TLVs should be consulted to determine the specific fume constituents present and their respective exposure limits. All exposure limits are in milligrams per cubic meter (mg/m³).

INGREDIENT	CAS	EINECS	OSHA PEL	ACGIH TLV
ALUMINUM###	7429-90-5	231-072-3	5 R*, 15 (Dust)	1 R* {A4} 5 (Welding fumes, as Al)
CHROMIUM#	7440-47-3	231-157-5	1 (Metal) 0.5 (Cr II & Cr III Cpnds) 0.005 (Cr VI Cpnds, Calif. OSHA PEL)	0.5 (Metal) 0.003 (Cr III Cpnds) {A4; DSEN; RSEN} 0.0002 (Cr VI Sol Cpnds) {A1; Skin; DSEN; RSEN} 0.0005 (Cr VI STEL)
COPPER	7440-50-8	231-159-6	0.1 (Fume), 1 (Dust)	0.2 (Fume), 1 (Dust)
IRON+	7439-89-6	231-096-4	5 R*	5 R* (Fe2O3) {A4}
IRON OXIDE	1309-37-1	215-168-2	10 (Oxide Fume)	5R*(Fe_2O_3) {A4}
MAGNESIUM+	7439-95-4	231-104-6	5 R*	3 R*
MANGANESE#	7439-96-5	231-105-1	5 CL** (Fume) 1, 3 STEL***■	0.1 I* {A4} ♦ 0.02 R* ♦♦
SCANDIUM	7440-20-2	231-129-2	Not established	Not established
(Amorphous Silica Fume)	69012-64-2	273-761-1	0.8	2 R*
SILICON+	7440-21-3	231-130-8	5 R*	3 R*
TITANIUM+	7440-32-6	231-142-3	5 R*	3 R*
TITANIUM DIOXIDE (Titanium Dioxide Fume)	13463-67-7	236-675-5	15 (Dust)	10 {A4}
ZINC	7440-66-6	231-175-3	Not established	Not established
ZIRCONIUM	7440-67-7	231-176-9	5 (Zr Cpnds) 5, 10 STEL***■(Zr Cpnds)	5, 10 STEL*** (Zr Cpnds) {A4}

R* - Respirable Fraction I* - Inhalable Fraction ** - Ceiling Limit *** - Short Term Exposure Limit + - As a nuisance particulate covered under "Particulates Not Otherwise Regulated" by OSHA or "Particulates Not Otherwise Specified" by ACGIH ++ - Crystalline silica is bound within the product as it exists in the package. However, research indicates silica is present in welding fume in the amorphous (noncrystalline) form #- Reportable material under Section 313 of SARA ### - Reportable material under Section 313 of SARA as dust or fume ■ - NIOSH REL TWA and STEL ♦ - Limit of 0.1 mg/m3 is for Inhalable Mn in 2015 by ACGIH ♦♦ - Limit of 0.02 mg/m3 is for Respirable Mn in 2015 by ACGIH Ele – Element Sol – Soluble Insol – Insoluble Inorg – Inorganic Cpnds – Compounds NOS – Not Otherwise Specified {A1} - Confirmed Human Carcinogen per ACGIH {A2} - Suspected Human Carcinogen per ACGIH {A3} - Confirmed Animal Carcinogen with Unknown Relevance to Humans per ACGIH {A4} - Not Classifiable as a Human Carcinogen per ACGIH {A5} - Not Suspected as a Human Carcinogen per ACGIH (noncrystalline form) DSEN – Dermal Sensitization RSEN – Respiratory Sensitization EINECS – European Inventory of Existing Commercial Chemical Substances OSHA – U.S. Occupational Safety and Health Administration ACGIH – American Conference of Governmental Industrial Hygienists

VENTILATION: Use enough ventilation or local exhaust at the arc or both to keep the fumes and gases below the PEL/TLV in the worker's breathing zone and the general area. Train the welder to keep his head out of the fumes.
RESPIRATORY PROTECTION: Use NIOSH-approved or equivalent fume respirator or air supplied respirator when welding in confined space or where local exhaust or ventilation does not keep exposure below the regulatory limits.
EYE PROTECTION: Wear helmet or use face shield with filter lens for open arc welding processes. As a rule of thumb begin with Shade Number 14. Adjust if needed by selecting the next lighter and/or darker shade number. Provide protective screens and flash goggles, if necessary, to shield others from the weld arc flash.
PROTECTIVE CLOTHING: Wear hand, head and body protection which help to prevent injury from radiation, sparks and electrical shock. See ANSI Z49.1. At a minimum this includes welder's gloves and a protective face shield, and may include arm protectors, aprons, hats, shoulder protection as well as dark non-synthetic clothing. Train the welder not to touch live electrical parts and to insulate himself from work and ground.
PROCEDURE FOR CLEANUP OF SPILLS OR LEAKS: Not applicable
SPECIAL PRECAUTIONS (IMPORTANT): When welding with electrodes that require special ventilation (such as stainless or hardfacing, or other products which require special ventilation, or on lead- or cadmium-plated steel and other metals or coatings like galvanized steel, which produce hazardous fumes) maintain exposure below the PEL/TLV. Use industrial hygiene monitoring to ensure that your use of this material does not create exposures which exceed PEL/TLV. Always use exhaust ventilation. Refer to the following sources for important additional information: American National Standard Institute (ANSI) Z49.1; Safety in Welding and Cutting published by the American Welding Society, 8669 NW 36 Street, # 130, Miami, Florida 33166-6672, Phone: 800-443-9353 or 305-443-9353; and OSHA Publication 2206 (29 CFR 1910), U.S. Government Printing Office, Washington, DC 20402.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Welding consumables applicable to this sheet as shipped are nonreactive, nonflammable, non-explosive and essentially nonhazardous until welded.
PHYSICAL STATE: Solid
APPEARANCE: Round wire
COLOR: Silver/Gray
ODOR: Not Applicable
ODOR THRESHOLD: Not Applicable
pH: Not Applicable
MELTING POINT/FREEZING POINT: Not Available
INITIAL BOILING POINT AND BOILING RANGE: Not Available
FLASH POINT: Not Available
EVAPORATION RATE: Not Applicable
FLAMMABILITY (SOLID, GAS): Not Available
UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS: Not Available
VAPOR PRESSURE: Not Applicable
VAPOR DENSITY: Not Applicable
RELATIVE DENSITY: Not Available
SOLUBILITY(IES): Not Available
PARTITION COEFFICIENT: N-OCTANOL/WATER: Not Applicable
AUTO-IGNITION TEMPERATURE: Not Available
DECOMPOSITION TEMPERATURE: Not Available
VISCOSITY: Not Applicable

SAFETY DATA SHEET

SECTION 10 – STABILITY AND REACTIVITY

GENERAL: Welding consumables applicable to this sheet are solid and nonvolatile as shipped. This product is only intended for use per the welding parameters it was designed for. When this product is used for welding, hazardous fumes may be created. Other factors to consider include the base metal, base metal preparation and base metal coatings. All of these factors can contribute to the fume and gases generated during welding. The amount of fume varies with the welding parameters.
STABILITY: This product is stable under normal conditions.
REACTIVITY: Contact with acids or strong bases may cause generation of gas.

SECTION 11 – TOXICOLOGICAL INFORMATION

SHORT-TERM (ACUTE) OVEREXPOSURE EFFECTS: Welding Fumes - May result in discomfort such as dizziness, nausea or dryness or irritation of nose, throat or eyes. **Aluminum Oxide** - Irritation of the respiratory system. **Chromium** - Inhalation of fume with chromium (VI) compounds can cause irritation of the respiratory tract, lung damage and asthma-like symptoms. Swallowing chromium (VI) salts can cause severe injury or death. Dust on skin can form ulcers. Eyes may be burned by chromium (VI) compounds. Allergic reactions may occur in some people. **Copper** - Metal fume fever characterized by metallic taste, tightness of chest and fever. Symptoms may last 24 to 48 hours following overexposure. **Iron, Iron Oxide** - None are known. Treat as nuisance dust or fume. **Magnesium** - Overexposure to the oxide may cause metal fume fever characterized by metallic taste, tightness of chest and fever. Symptoms may last 24 to 48 hours following overexposure. **Manganese** - Metal fume fever characterized by chills, fever, upset stomach, vomiting, irritation of the throat and aching of body. Recovery is generally complete within 48 hours of the overexposure. **Scandium** - Dust and fumes may cause irritation of the respiratory system, skin and eyes. **Silicon (Amorphous Silica Fume)** - Dust and fumes may cause irritation of the respiratory system, skin and eyes. **Titanium Dioxide** - Irritation of respiratory system. **Zinc -** metal fume fever stomach cramps, skin irritations, vomiting, nausea and anemia. **Zirconium** - May cause irritation of the eyes, nose and throat due to mechanical effects.

LONG-TERM (CHRONIC) OVEREXPOSURE EFFECTS: Welding Fumes - Excess levels may cause bronchial asthma, lung fibrosis, pneumoconiosis or "siderosis." Studies have concluded that there is sufficient evidence for ocular melanoma in welders. **Aluminum Oxide** - Pulmonary fibrosis and emphysema. **Chromium** - Ulceration and perforation of nasal septum. Respiratory irritation may occur with symptoms resembling asthma. Studies have shown that chromate production workers exposed to hexavalent chromium compounds have an excess of lung cancers. Chromium (VI) compounds are more readily absorbed through the skin than chromium (III) compounds. Good practice requires the reduction of employee exposure to chromium (III) and (VI) compounds. **Copper** - Copper poisoning has been reported in the literature from exposure to high levels of copper. Liver damage can occur due to copper accumulating in the liver characterized by cell destruction and cirrhosis. High levels of copper may cause anemia and jaundice. High levels of copper may cause central nervous system damage characterized by nerve fiber separation and cerebral degeneration. **Iron, Iron Oxide Fumes** - Can cause siderosis (deposits of iron in lungs) which some researchers believe may affect pulmonary function. Lungs will clear in time when exposure to iron and its compounds ceases. Iron and magnetite (Fe_3O_4) are not regarded as fibrogenic materials. **Magnesium** - No adverse long term health effects have been reported in the literature. **Manganese** - Long-term overexposure to manganese compounds may affect the central nervous system. Symptoms may be similar to Parkinson's disease and can include slowness, changes in handwriting, gait impairment, muscle spasms and cramps and less commonly, tremor and behavioral changes. Employees who are overexposed to manganese compounds should be seen by a physician for early detection of neurologic problems. Overexposure to manganese and manganese compounds above safe exposure limits can cause irreversible damage to the central nervous system, including the brain, symptoms of which may include slurred speech, lethargy, tremor, muscular weakness, psychological disturbances and spastic gait. **Scandium** – No adverse long term health effects have been reported in the literature. **Silicon (Amorphous Silica Fume)** - Research indicates that silica is present in welding fume in the amorphous form. Long term overexposure may cause pneumoconiosis. Non crystalline forms of silica (amorphous silica) are considered to have little fibrotic potential. **Titanium Dioxide** - Pulmonary irritation and slight fibrosis. **Zinc** - damage the pancreas and disturb the protein metabolism, and cause arteriosclerosis. **Zirconium** - May cause pulmonary fibrosis and pneumoconiosis.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Persons with pre-existing impaired lung functions (asthma-like conditions). Persons with a pacemaker should not go near welding and cutting operations until they have consulted their doctor and obtained information from the manufacturer of the device. Respirators are to be worn only after being medically cleared by your company-designated physician.

EMERGENCY AND FIRST AID PROCEDURES: Call for medical aid. Employ first aid techniques recommended by the American Red Cross. If irritation or flash burns develop after exposure, consult a physician.

CARCINOGENICITY: Chromium VI compounds are classified as IARC Group 1 and NTP Group K carcinogens. Titanium dioxide and welding fumes are classified as IARC Group 2B carcinogens.

CALIFORNIA PROPOSITION 65: ⚠ **WARNING:** These products can expose you to chemicals, including titanium dioxide, which are known to the State of California to cause cancer, and nitrous oxides, which are known to the State of California to cause birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.

INGREDIENT	CAS	IARC[E]	NTP[Z]	OSHA[H]	65[Θ]
ALUMINUM	7429-90-5	---	---	---	---
CHROMIUM	7440-47-3	3[Σ] , 1[ΣΣ],	K[ΣΣ]	X[ΣΣ]	X[ΣΣ]
COPPER	7440-50-8	---	---	---	---
IRON	7439-89-6	---	---	---	---
IRON OXIDE	1309-37-1	3	---	---	---
MAGNESIUM	7439-95-4	---	---	---	---
MANGANESE	7439-96-5	---	---	---	---
(Amorphous Silica Fume)	69012-64-2	3	--	---	---
SILICON	7440-21-3	---	---	---	---
TITANIUM	7440-32-6	---	---	---	---
TITANIUM DIOXIDE	13463-67-7	2B	---	---	X
(Titanium Dioxide Fume)	---	---	---	---	---
Ultraviolet Radiation	---	1	---	---	---
WELDING FUMES	---	1	---	---	---
ZINC	7440-66-6	---	---	---	---
ZIRCONIUM	7440-67-7	---	---	---	---

E – International Agency for Research on Cancer (1 – Carcinogenic to Humans, 2A – Probably Carcinogenic to Humans, 2B – Possibly Carcinogenic to Humans, 3 – Not Classifiable as to its Carcinogenicity to Humans, 4 Probably Not Carcinogenic to Humans) Z – US National Toxicology Program (K – Known Carcinogen, S – Suspected Carcinogen) H – OSHA Designated Carcinogen List Θ – California Proposition 65 (X – On Proposition 65 list) --- Dashes indicate the ingredient is not listed with the IARC, NTP, OSHA or Prop 65 Σ – Metal and Chromium III Compounds ΣΣ – Chromium VI Ψ – Silica Crystalline α-Quartz

SECTION 12 – ECOLOGICAL INFORMATION

Welding processes can release fumes directly to the environment. Welding wire can degrade if left outside and unprotected. Residues from welding consumables and processes could degrade and accumulate in the soil and groundwater.

SAFETY DATA SHEET

SECTION 13 – DISPOSAL CONSIDERATIONS

Use recycling procedures if available. Discard any product, residue, packaging, disposable container or liner in an environmentally acceptable manner, in full compliance with federal, state and local regulations.

SECTION 14 – TRANSPORT INFORMATION

No international regulations or restrictions are applicable. No special precautions are necessary.

SECTION 15 – REGULATORY INFORMATION

Read and understand the manufacturer's instructions, your employer's safety practices and the health and safety instructions on the label and the safety data sheet. Observe all local and federal rules and regulations. Take all necessary precautions to protect yourself and others.

United States EPA Toxic Substance Control Act: All constituents of these products are on the TSCA inventory list or are excluded from listing.

CERCLA/SARA TITLE III: Reportable Quantities (RQs) and/or Threshold Planning Quantities (TPQs):

Ingredient name	**RQ(lb)**	**TPQ (lb)**
Products on this SDS are a solid solution in the form of a solid article.		
	--	--

Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center and to your Local Emergency Planning Committee.

Section 311 Hazard Class
As shipped: Immediate
In use: Immediate delayed

EPCRA/SARA TITLE III 313 TOXIC CHEMICALS: The following metallic components are listed as SARA 313 "Toxic Chemicals" and potentially subject to annual SARA 312 reporting: Aluminum, Chromium, Copper and Manganese. See Section 3 for weight percentage.

CANADIAN WHMIS CLASSIFICATION: Class D; Division 2, Subdivision A

CANADIAN CONTROLLED PRODUCTS REGULATION: This product has been classified in accordance with the hazard criteria of the CPR and the SDS contains all of the information required by the CPR.

CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA): All constituents of these products are on the Domestic Substance List (DSL).

SECTION 16 – OTHER INFORMATION

The following Hazard Statements, provided in the OSHA Hazard Communication Standard (29 CFR Part 1910.1200) correspond to the columns labeled 'GHS Hazard Statements' within Section 3 of this safety data sheet. Take appropriate precautions and protective measures to eliminate or limit the associated hazard.

H250: Catches fire spontaneously if exposed to air
H260: In contact with water releases flammable gases which may ignite spontaneously
H271: May cause fire or explosion; strong oxidizer
H301: Toxic if swallowed
H302: Harmful if swallowed
H311: Toxic in contact with skin
H314: Causes severe skin burns and eye damage
H317: May cause an allergic skin reaction
H319: Causes serious eye irritation
H330: Fatal if inhaled
H332: Harmful if inhaled
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335: May cause respiratory irritation
H340: May cause genetic defects
H350: May cause cancer
H351: Suspected of causing cancer
H361f: Suspected of damaging fertility or the unborn child
H372: Causes damage to organs through prolonged or repeated exposure
H373: May cause damage to organs through prolonged or repeated exposure
H400: Very toxic to aquatic life.
H410: Very toxic to aquatic life with long lasting effects
H412: Harmful to aquatic life with long lasting effects.

For additional information please refer to the following sources:

USA: **American National Standards Institute (ANSI) Z49.1** "Safety in Welding and Cutting", **ANSI/American Welding Society (AWS) F1.5** "Methods for Sampling and Analyzing Gases from Welding and Allied Processes", **ANSI/AWS F1.1** "Method for Sampling Airborne Particles Generated by Welding and Allied Processes", **AWSF3.2M/F3.2** "Ventilation Guide for Weld Fume", American Welding Society, 8669 NW 36 Street, # 130, Miami, Florida 33166-6672, Phone: 800-443-9353 or 305-443-9353. Safety and Health Fact Sheets available from AWS at www.aws.org.
OSHA Publication 2206 (29 C.F.R. 1910), U.S. Government Printing Office, Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954.
Threshold Limit Values and Biological Exposure Indices, American Conference of Governmental Industrial Hygienists (ACGIH), 6500 Glenway Ave., Cincinnati, Ohio 45211, USA.
NFPA 51B "Standard for Fire Prevention During Welding, Cutting and Other Hot Work" published by the National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169.

Canada: **CSA Standard CAN/CSA-W117.2-01** "Safety in Welding, Cutting and Allied Processes".

Hobart Brothers LLC strongly recommends the users of this product study this SDS, the product label information and become aware of all hazards associated with welding. Hobart Brothers LLC believes this data to be accurate and to reflect qualified expert opinion regarding current research. However, Hobart Brothers LLC cannot make any expressed or implied warranty as to this information.

Telephone (North America) (888) 698-2571
International +1-410-329-9200
701 East Joppa Road
Towson, MD 21286
www.irwin.com

SAFETY DATA SHEET

Irwin Chalk – Permanent Red	January 28, 2021
	Revision 4

1. PRODUCT and COMPANY IDENTIFICATION

Commercial Product Name: Irwin Chalk – Permanent Red

Company: Irwin Tools

Use of product: Snap line mark

Emergency contact: North America (888) 698-2571; International +1-410-329-9200

2. HAZARDS IDENTIFICATION

Hazards Identification: GHS Classification and Hazard Statement

Carcinogenicity – May cause cancer (lung) Category 1A, H350

Signal Word: DANGER

Hazard Statements

H319 Causes serious eye irritation.

H350 May cause cancer

H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary Statements

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P280 Wear protective gloves and eye protection.

P308 and P313 If exposed or concerned, get medical advice/attention.

P405 Store locked up.

Hazards Not Otherwise Classified or Not Covered by GHS:

Ingestion: Ingestion of large amounts may cause gastrointestinal irritation. Ingestion is considered an unlikely route of entry in commercial or industrial environments.

Chronic: Repeated and prolonged inhalation exposure to crystalline silica dust above exposure limits may cause delayed, chronic lung injury (silicosis). Prolonged inhalation of iron oxide dust is known to produce a benign lung condition known as siderosis. When the project is used as intended, dust levels should not exceed exposure limits. See Sections 8 and 11.

DANGER

Hazard Ratings:

Hazardous Material Identification System (HMIS):

Health 1*, Flammability 0, Reactivity 0 *chronic effects

National Fire Protection Association (NFPA):

Health 1, Flammability 0, Reactivity 0

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance name	Value (%)	CAS No.	EC No.
Red Iron Oxide	15 - 25	1309-37-1	215-168-2
Calcium carbonate	75 - 85	471-34-1	207-439-9
Crystalline Silica (quartz)[1]	0.1 - 1	14808-60-7	238-878-4

[1] Calcium carbonate may contain quartz, a form of crystalline silica at levels between 0.1 and 1.0 % and varies naturally.

4. FIRST AID MEASURES

Inhalation: Remove from exposure and move to fresh air immediately.
Encourage the patient to blow nose to ensure clear breathing passages.
If not breathing, give artificial respiration. If breathing is difficult, give oxygen.
Get medical aid if cough or other symptoms appear.

Skin contact: Wet clothing first to minimize dust generation, then; remove contaminated clothing and shoes. Launder contaminated clothing before wearing again.
Wash affected area with water (and soap if available)
Get medical aid in the event of irritation.

Eye contact: Do not rub eyes, rubbing may cause abrasions. Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Ingestion: If the victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid immediately.

Additional advice: Show this safety data sheet to the doctor in attendance

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Substance is noncombustible, however; the containers may burn, releasing carbon monoxide, and carbon dioxide. Use appropriate extinguishing media for the combustible material involved in a fire.

Explosion: No information found.

Specific hazards: If oxidation of this product should occur, heat will be liberated which could cause surrounding combustibles to burn.

Special protective equipment for Firefighters: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Wear appropriate personal protective equipment as specified in Section 8.

Environmental precautions: Do not allow this material to be released to the environment without proper governmental permits.

Methods for cleaning up: Recover the product whenever possible. Avoid generating dust when sweeping/shoveling up. If required, wet the material with water to prevent creating dust. Pick up and place in a suitable container for reclamation or disposal. Follow applicable OSHA regulations (29 CFR 1910.120)

7. HANDLING AND STORAGE

Storage: Store this product in a tightly closed container in a dry, well-ventilated area away from incompatible substances.

Handling: Avoid creating or breathing dust. Practice good personal hygiene, (hand washing, etc.) after using this product. Avoid contact with skin and eyes.

Packaging material: No information found.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Component	CAS No.	% by weight	Exposure Limit 8-Hour TWA[1] (mg/m^3) OSHA PEL	ACGIH TLV®	Canada OEL
Red Iron Oxide	1309-37-1	15-25	10	5[3]	5[3]
Calcium carbonate	471-34-1 (1317-65-3)	75-85	15[2], 5[3]	Not Est.	Not Est.
Crystalline Silica-Quartz[4]	14808-60-7	0.1-1.0	0.05[3]	0.025[3]	0.1[3]

[1] TWA = Time-weighted average
[2] Total dust.
[3] Respirable dust.
[4] Calcium carbonate may contain quartz, a form of crystalline silica at levels between 0.1 and 1.0 % and varies naturally.

Exposure and Engineering Controls: Facilities storing or utilizing this material should have potable water available for washing eyes and skin. Use sufficient general area (or outdoor) ventilation. Local exhaust ventilation should be used if airborne concentrations of dust exceed limits cited in Section 8.

Personal protective equipment:

Hand protection: Wear protective gloves
Eye protection: Wear safety glasses, or chemical goggles in windy conditions or where eye contact is possible.
Respiratory protection: When engineering controls are not sufficient to reduce exposure, seek professional advice prior to respirator selection and use. Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

Hygiene measures: Wash contaminated clothing before reuse.
Environmental exposure controls: No information found.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Powder
Color:	Red
Odor:	Odorless
pH (at 10% solids):	8.5-9.5
Boiling point/range:	No data available
Melting point/range:	Decomposes at 1,517 °F (825°C).
Flash point:	No data available
Evaporation rate:	No data available
Vapor density:	No data available
Solubility in water:	<0.0002 (Trace)
Explosive properties:	No data available
Oxidizing properties:	No data available
Vapor pressure:	No data available
Relative density (H_2O=1):	3.40-3.45
Viscosity:	No data available
Partition coefficient (n-octanol/water):	No data available

10. STABILITY AND REACTIVITY

Stability: Stable under normal temperatures and pressures.

Hazardous decomposition products: Carbon monoxide, carbon dioxide, calcium oxide.

Materials to avoid: Strong oxidizing agents, acids, aluminum, fluorine, magnesium, peroxides hydrazine, calcium hypochlorite, performic acid, and bromine pentafluoride.

Conditions to avoid: Incompatible materials.

Hazardous Polymerization: Does not occur.

11. TOXICOLOGICAL INFORMATION

Note: Toxicological effects described in this section are those that would be expected based on data from the components of this product.

Acute toxicity: (Talc, CAS# 14807-96-6) Not determined.

Inhalation: (Crystalline silica, quartz) Human: LC_{Lo}: 300 µg/m^3/ intermittent exposure over a 10-year period produced pulmonary system effects.

Skin contact: (Calcium carbonate) Rabbit: 500mg administered for 24 hours produces moderate skin irritation.

Eye contact: (Calcium carbonate) Rabbit: 0.750 mg administered for 24 hours produced severe irritation.

Ingestion: (Calcium carbonate) Rat: LD_{50}: 6,450 mg/kg.

Chronic toxicity/Carcinogenicity: Repeated and prolonged inhalation exposure to crystalline silica dust above exposure limits may cause delayed, chronic lung injury (silicosis). When the product is used as intended, dust levels should not exceed exposure limits.

Crystalline silica – Quartz:
The International Agency for Research on Cancer (IARC) has designated this substance Group 1, “carcinogenic to humans”.
The National Toxicology Program (NTP) has designated this substance: Group K “known to be a human carcinogen”
American Conference of Governmental Industrial Hygienists (ACGIH) has designated this substance A2; suspected human carcinogen. The agent is carcinogenic in experimental animals at dose levels, by route of administration, at sites of histologic type(s) or by mechanism(s) considered relevant to worker exposure. Available epidemiologic studies are conflicting or insufficient to confirm an increased risk of cancer in exposed humans.

12. ECOLOGICAL INFORMATION

Bioaccumulation: No information found.
Ecotoxicity effects: No information found.
Fish Toxicity: Golden Orfe (Leucisus idus) LC_{Lo}: greater than 1,000 mg/l. Limestone (which is primarily composed of calcium carbonate) is not classified as a “Toxic pollutant” or a “hazardous substance under Section 307 and 311 of the United States Clean Water Act.

13. DISPOSAL CONSIDERATIONS

Waste from residues of this product is not a hazardous waste according to U.S. Environmental Protection Agency (EPA) regulations. Disposal by landfill may be acceptable.
Consult an expert on the disposal of recovered material for compliance with state, provincial, and/or local regulations.

14. TRANSPORT INFORMATION

U.S. DOT: Not regulated

ADR/RID: Not regulated

IMDG: Not regulated

ICAO/IATA: Not regulated

15. REGULATORY INFORMATION

U.S. Federal Regulations
OSHA: Ingredients are listed as air contaminants (29 CFR 1910.1000).
Hazardous by definition of the Hazard Communication Standard (29 CFR 1910.1200).

TSCA (Toxic Substance Control Act): All components of this product are listed on the TSCA inventory.

CERCLA: Hazardous Substance, (40 CFR 302.4): Not Listed.
Extremely Hazardous Substance (40 CFR 355): Not Listed.

SARA Hazard Category: This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following category:
"An immediate (acute) and chronic health hazard."

Chemicals subject to the reporting requirements of Section 313 or Title III of SARA and 40 CFR Part 372: None.

STATE REGULATIONS:

California's "Safe Drinking Water and Toxic Enforcement Act of 1986" (Proposition 65)

WARNING: This product contains the following Proposition 65 regulated materials known to the State of California to cause cancer or reproductive harm. The listed typical amounts are a result of their natural presence in the raw materials from which this product is produced.

Crystalline silica- quartz equal to, or less than 1.0 percent

16. OTHER INFORMATION

The contents and format of this SDS are in accordance with the U.S. Hazard Communication Standard 29 CFR 1910.1200; the Canadian CPR, and Workplace Hazardous Materials Information System (WHMIS); and EEC Commission Directive 1999/45/EC, and EEC Commission Regulation 1907/2006/EC (REACH) Annex II. This product is classified according to Regulation (EC) Number 1272/2008.

DISCLAIMER OF LIABILITY The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product.
If the product is used as a component in another product, this SDS information may not be applicable.

SAFETY DATA SHEET

DATE: 2.20.2025 Rev 11

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION
PRODUCT NAME: Marking Chalk Glo Orange
USE OF PRODUCT: Chalk Box Marking Chalk
MANUFACTURER: Keson LLC
ADDRESS: 810 Commerce St., Aurora, Il. 60504
EMERGENCY PHONE: 1-800-345-3766 (8am to 5pm Central Time, Monday – Friday)

SECTION 2: HAZARDS IDENTIFICATION
OSHA GHS Hazard Statements (Warning Label)
DANGER: May cause cancer (lung)

EMERGENCY OVERVIEW:
Product Description: These products are colored, finely powdered, odorless chalks. Health Hazards: Inhalation of dusts from this product may irritate the respiratory system. Skin and eye contact may cause mechanical abrasion. These chalks contain Crystalline Silica, a known human carcinogen by inhalation.
Flammability Hazards: These chalks are not flammable. Finely divided dusts from these products can form explosive mixtures in air. If involved in a fire, these products may decompose to form iron oxides, aluminum oxides, silicon dioxide, sulfur dioxide, magnesium oxides, carbon oxides and calcium oxides.

POTENTIAL HEALTH EFFECTS
EYES: May cause irritation. Chalk dust is discomforting and abrasive to the eyes.

SKIN: Prolonged contact may cause irritation. When the product is used as intended, it is unlikely to cause problems.

INGESTION: Ingestion of large amount may cause internal irritation. Ingestion is considered an unlikely route of entry in commercial or industrial environments.

INHALATION: May irritate the respiratory system. When the product is used as intended, it is unlikely to cause problems.

Chronic: Repeated or prolonged inhalation exposure to crystalline silica dust beyond exposure limits may cause chronic lung injury (silicosis). Prolonged inhalation of iron oxide dust is known to produce a benign lung condition known as siderosis. When the product is used as intended, dust levels should not exceed exposure limits. See Sections 8 and 11.

DANGER

Hazard Ratings:
Hazardous Material Identification System (HMIS): Health 1*, Flammability 0, Reactivity 0
*chronic effects
National Fire Protection Association (NFPA): Health 1, Flammability 0, Reactivity 0

Obtain special instructions before use. May cause cancer by inhalation. Avoid breathing dust or fume. Causes serious eye irritation. Causes mild skin irritation. Do not handle until all safety precautions have been read and understood. Wear protective gloves and eye protection.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substance name	Value (%)	CAS No.	EC No.
Calcium carbonate (1)	85-95	471-34-1	207-439-9
Glo Orange Pigment (2)	5-15	NONE	NONE
Silica (crystalline quartz) (1)	0.1 - 2	14808-60-7	238-878-4

1 Calcium carbonate may contain crystalline silica at levels between 0.1 and 1.0 % and varies naturally.
2 Formaldehyde is used in the manufacturing process of Glo Pigments. Cas Number 50-00-0

SECTION 4: FIRST AID MEASURES

EYES: If product enters the eye do not rub, rubbing may cause abrasions. Flush eyes with copious amounts of water for 15 minutes, occasionally lifting upper and lower eyelids. If adverse effects persist after flushing with water, get medical aid.

SKIN: Wet clothing first to minimize dust generation, then; remove contaminated clothing and shoes. Wash contaminated clothing before wearing again. Wash infected areas with water and soap. Get medical attention in the event of irritation.

INGESTION: If this material is swallowed, CALL PHYSICIAN OR POISON CONTROL CENTER FOR MOST CURRENT INFORMATION**.** If professional advice is not available, seek immediate medical attention. If alert, victim should drink up to three glasses of water. Do not induce vomiting. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or unable to swallow. If victim is convulsing, maintain an open airway and obtain emergency medical attention.

INHALATION: If dust or particulates are inhaled, Remove from exposure and move to fresh air immediately. Encourage to blow nose to ensure clear breathing passages. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: Show this data safety sheet to medical professionals.

SECTION 5: FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: Substance is noncombustible, however; the containers may burn, releasing carbon monoxide and carbon dioxide. Use appropriate extinguishing media for the combustible material involved in a fire.

SPECIAL FIRE FIGHTING PROCEDURES: As in any fire, wear self-contained breathing apparatus in pressure demand and full protective gear.

FIRE EXTINGUISHING MEDIA: Unless incompatibilities exist for surrounding materials, carbon dioxide, water spray, “ABC‟ type chemical extinguishers, foam, dry chemical and halon extinguishers can be used to fight fires involving this material.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Finely divided dusts from this material pose a hazard of an air/dust explosion in presence of an ignition source

HAZARDOUS DECOMPOSITION PRODUCTS: If oxidation of this product should occur, heat will be liberated which could cause surrounding combustibles to burn.

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES: Wear appropriate personal protective equipment. Do not allow this material to be released into the environment. Recover the product whenever possible. Avoid generating dust when sweeping or shoveling up. If required, wet the material with water to prevent creating dust. Pick up and place in a suitable container for reclamation or disposal.

Cleanup of Small Spills: Solids should be gently covered with wet absorbent pads. Clean spill with pad and dispose of properly. Decontaminate the spill area (three times) using a bleach and detergent solution and then rinse with clean water.

Large Spills: Restrict access to the spill areas. For spills of greater than 5 g, be sure not to generate dusts by gently covering with damp absorbent sheets, spill-control pads, pillows, cloths, or towels. The dispersion of particles into surrounding air and the possibility of inhalation is a serious matter and should be treated as such. Do not apply chemical in-activators as they may produce hazardous by-products. Sweep up or vacuum spilled solid (an explosion-proof vacuum should be used), avoiding the generation of airborne dusts. Decontaminate the area thoroughly.

All Spills: Use procedures described above and then place all spill residues in an appropriate, labeled container and seal. Move to a secure area. Dispose of in accordance with Federal, State, and local hazardous waste disposal regulations (see Section 13, Disposal Considerations). For spills on water, contain, minimize dispersion and collect. Dispose of recovered material and report spill per regulatory requirements.

SECTION 7: HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: All employees who handle this material should be trained to handle it safely. Open containers slowly on a stable surface. As with all chemicals, avoid getting this product ON YOU or IN YOU. Wash thoroughly after handling this product. Do not eat, drink, smoke, or apply cosmetics while handling this product. Avoid breathing airborne dusts generated by this product. Use in a well-ventilated area. Ensure this product is used with adequate ventilation and personal protective equipment (see Section 8, Exposure Controls and Personal Protection). Avoid airborne dusts generated by this product. Clean work areas routinely to prevent accumulation of dust. Clean up spills promptly.

CONDITIONS FOR SAFE STORAGE: Empty containers may contain residual amounts of this product; therefore, empty containers should be handled with care. Store containers in a cool, dry location, away from direct sunlight, sources of intense heat, or where freezing is possible. Store away from incompatible materials (see Section 10, Stability and Reactivity). Have appropriate extinguishing equipment in the storage area (e.g., sprinkler system, portable fire extinguishers). Keep container tightly closed when not in use. Refer to NFPA 654, *Prevention of Fire and Dust Explosions from the Manufacturing, Processing and Handling of Combustible Particulate Solids* for additional information on storage.

SPECIFIC END USE(S): These products are used in chalk line devices in construction. Follow all industry standards for use of this product.

PROTECTIVE PRACTICES DURING MAINTENANCE OF CONTAMINATED EQUIPMENT: Follow practices indicated in Section 6 (Accidental Release Measures). Make certain that application equipment is locked and tagged-out safely. Always use this product in areas where adequate ventilation is provided. Decontaminate equipment thoroughly, before maintenance begins. Collect all residue and dispose of according to applicable or applicable federal, state, provincial and local standards.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limit 8-Hour TWA1(mg/m3)

Component	CAS No.	% by weight	OSHA PEL	ACGIH TLV	NIOSH REL
Calcium Carbonate (Limestone) (4)	471-34-1; (1317-65-3)	85-90	15(2), 5 (3)	10(2)	10(2), 5(3)
Glo Orange Pigment (6)	NONE	10-15	10	5(3)	5
Silica-Crystalline Quartz (4)	14808-60-7	0.1-2.0	10(2,5),3.3(3,5)	0.05(3)	0.05(3)

1TWA = Time-weighted average
2Total dust.
3Respirable dust.
4Calcium carbonate may contain crystalline silica at levels between 0.1 and 1.0 % and varies naturally.
5Using the OSHA quartz formula, this PEL was calculated assuming crystalline silica content of 1.0% in this ingredient.
6 formaldehyde is used in the manufacturing process of Glo pigments. Cas number 50-00-0

SPECIAL NOTE: The following information is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132, including U.S. Federal OSHA Respiratory Protection (29 CFR 1910.134), OSHA Eye Protection 29 CFR 1910.133, OSHA Hand Protection 29 CFR 1910.138, OSHA Foot Protection 29 CFR 1910.136 and OSHA Body Protection 29 CFR1910.132), equivalent standards of Canada (including CSA Respiratory Standard Z94.4-02, Z94.3-M1982, Industrial Eye and Face Protectors and CSA Standard Z195-02, Protective Footwear), or standards of EU member states (including EN 529:2005 for respiratory PPE, CEN/TR 15419:2006 for hand protection, and CR 13464:1999 for face/eye protection). Please reference applicable regulations and standards for relevant details.

ENGINEERING CONTROLS: Facilities storing or utilizing this material should have potable water available for washing of eyes and skin. Use sufficient general area ventilation. To ensure exposure levels are maintained below the limits provided in this section if applicable.

VENTILATION: Local ventilation should be used.

RESPIRATORY PROTECTION: Maintain airborne contaminant concentrations below exposure limits listed above. For materials without listed exposure limits, minimize respiratory exposure. If necessary, use only respiratory protection authorized under appropriate regulations. Oxygen levels below 20% are considered IDLH by U.S. OSHA. In such atmospheres, use of a full-face piece pressure/demand SCBA or a full face piece, supplied air respirator with auxiliary self-contained air supply is required under U.S. OSHA‟s Respiratory Protection Standard (1910.134-1998).

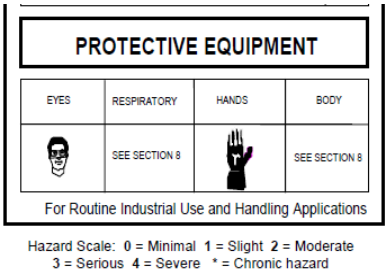
EYE PROTECTION: Wear safety goggles/glasses as appropriate for the task if dust or other particulates are present. Face shields maybe recommended if solutions are made. If necessary, refer to appropriate regulations.

SKIN PROTECTION: Use appropriate protective clothing for the task. Full-body protective clothing and gloves are recommended for emergency response procedures. If necessary, refer to the U.S. OSHA Technical Manual (Section VII: Personal Protective Equipment) or other appropriate regulations.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: No information found.

WORK HYGIENIC PRACTICES: Wash contaminated clothing before reuse.

EXPOSURE GUIDELINES: No information found.



SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES
APPEARANCE: Powder – Glo Orange Color
ODOR: Odorless
pH AS SUPPLIED: 8.5-9.5 (at 10% solids)
BOILING POINT: No Data Available
MELTING POINT: Decomposes
F: 1517 Deg
C: 825Deg
FREEZING POINT: No Data Available.
VAPOR PRESSURE (mmHg): No Data Available.
VAPOR DENSITY (AIR = 1): No Data Available.
SPECIFIC GRAVITY (H2O = 1): No Data Available.
EVAPORATION RATE: No Data Available.

SECTION 10: STABILITY AND REACTIVITY
STABILITY: Stable under normal temperatures and pressures.

CONDITIONS TO AVOID (STABILITY): Incompatible materials

INCOMPATIBILITY (MATERIAL TO AVOID): Strong oxidizing agents, acids, aluminum, fluorine, magnesium, peroxides, hydrazine, calcium hypochlorite, performic acid, and bromine pentafluoride.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: Carbon monoxide, carbon dioxide, calcium oxide.

HAZARDOUS POLYMERIZATION: Does not occur.

SECTION 11: TOXICOLOGICAL INFORMATION
TOXICOLOGICAL INFORMATION: SYMPTOMS OF EXPOSURE BY ROUTE OF EXPOSURE: The most significant routes of industrial exposure to this product are by skin or eye contact and inhalation.

INHALATION: If dusts or particulates from these products are inhaled, irritation of the nose, throat, and lungs can occur. Symptoms may include sneezing, coughing, nasal congestion, and difficulty breathing. Symptoms are generally alleviated upon exposure to fresh air. If heated, chronic exposure to concentrations of silicon dioxide fume may cause chronic obstructive lung disease. Inhalation of iron oxide fume or dust is cause of pulmonary roentgen graphic appearance called siderosis, or an accumulation of iron that leads to reduced lung capacity. These products contain Crystalline Silica, which is a known human carcinogen. Chronic inhalation exposure to this material may cause silicosis, pulmonary fibrosis, bronchitis or present a hazard of cancer, due to the presence of Crystalline Silica.

CONTACT WITH SKIN or EYES: Skin contact may cause abrasion, redness, and discomfort. Prolonged and repeated skin exposure may cause dermatitis (dry, red skin). Direct eye contact with these products may cause stinging, abrasions, and redness. Dust can cause mechanical irritation to the eye. Repeated contact of dust with the eyes can cause conjunctivitis a disease that may cause eyes to become pink and sore), or can cause discoloration of the eyes.

SKIN ABSORPTION: This product does not pose a hazard of skin absorption.

INGESTION: Ingestion is an unlikely route of occupational exposure to this product. In the unlikely event that dusts from the product are ingested nausea, vomiting, and diarrhea may result.
Repeated ingestion of iron compounds can cause vomiting, diarrhea, pink urine, black stool, and liver or kidney damage. Repeated ingestion of iron compounds can also cause siderosis, which is an accumulation of iron in tissues.

Chronic: Repeated inhalation exposure of crystalline silica above safe levels may cause adverse effects to the respiratory system. Chronic inhalation may result in pulmonary fibrosis. This product contains crystalline silica, which is a known human carcinogen.

SECTION 11 NOTES: The International Agency for Research on Cancer (IARC) classified (quartz) crystalline silica (cs) as a probable carcinogen and in 1997 reclassified it as a Group 1 carcinogen, i.e., that there was sufficient evidence for carcinogenicity in experimental animals and sufficient evidence for carcinogenicity in humans. In its Ninth Annual Report on Carcinogens, the National Toxicology Program (NTP) listed crystalline silica as a known human carcinogen, based on sufficient evidence of carcinogenicity from studies in humans indicating a causal relationship between exposure to respirable crystalline silica and increased lung cancer rates in workers exposed to crystalline silica dust. The International Agency for Research on Cancer (IARC) has evaluated crystalline silica and determined that "crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (Group 1)."

SECTION 12: ECOLOGICAL INFORMATION
ECOLOGICAL INFORMATION: Safe practices must be in place to prevent environmental contamination.

SECTION 12 NOTES: These products have not been tested for aquatic or animal toxicity. All release to terrestrial, atmospheric and aquatic environments should be avoided.

SECTION 13: DISPOSAL CONSIDERATIONS
WASTE DISPOSAL METHOD: Waste from residue of this product is NOT hazardous waste according to the EPA regulations. Disposal by landfill may be acceptable. Waste disposal must follow all US Federal, State and Local (EPA) regulations, Canadian and European Governmental Guidelines.

SECTION 14: TRANSPORT INFORMATION
U.S. DEPARTMENT OF TRANSPORTATION: (DOT) These products are not classified as dangerous goods under the DOT regulations 49CFR: 172.101

WATER TRANSPORTATION: (IMO) Not classified as dangerous

AIR TRANSPORTATION: (ATA) Not classified as dangerous

SECTION 15: REGULATORY INFORMATION
U.S. FEDERAL REGULATIONS

OSHA: Components are listed as air contaminates. Regulation standards -29CFR. Standard number 1910.100 Table 2-1

TSCA (TOXIC SUBSTANCE CONTROL ACT): All components are listed on the TSCA inventory

CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT): Not Listed

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT): The components of this product has been reviewed on the EAP Hazards Categories in section 311-312 and is considered a chronic health risk.

STATE REGULATIONS: This product can expose you to chemicals including Crystalline Silica and formaldehyde which is known to the State of California to cause cancer. For more information, visit www.p65Warnings.ca.gov

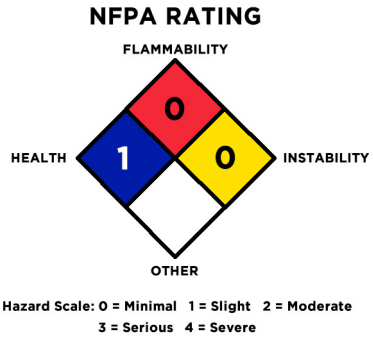
CANADA WHIMS: (Workplace Hazardous Materials Information System) This SDS sheet contains all of the information needed by the CPR. (Controlled Products Regulation)

WHIMS CLASSIFICATION D2A: Very toxic (carcinogenicity)

EU CLASSIFICATION, LABELING: This product does meet the definition of hazard class described by the EUROPEAN UNION COUNCIL DIRECTIVE EC# 1272/2008.Classification information for components Crystalline Silica. EU Classification (xn) Harmful EU risk r68/20 harmful: Risk of irreversible damage through inhalation.

SECTION 16: OTHER INFORMATION

Hazard Ratings:
Hazardous Material Identification System (HMIS): Health 1*, Flammability 0, Reactivity 0*chronic effects
National Fire Protection Association (NFPA): Health 1, Flammability 0, Reactivity 0



The contents and format of this SDS are in accordance with the U.S. Hazard Communication Standard 29 CFR 1910.1200; the Canadian CPR, and Workplace Hazardous Materials Information System (WHMIS); and EEC Commission Directive 1999/45/EC, and EEC Commission Regulation 1907/2006/EC (REACH) Annex II.
DISCLAIMER OF LIABILITY The information in this SDS was obtained from sources which we believe are correct. However, the information is provided without any warranty, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product.
If the product is used as a component in another product, this SDS information may not be applicable.

End of document

SAFETY DATA SHEET

5515

Section 1. Identification

Product name : KRYLON® COLORMAXX™ Crystal Clear Gloss

Product code : 5515

Other means of identification : Not available.

Product type : Aerosol.

Relevant identified uses of the substance or mixture and uses advised against

Paint or paint related material.

Manufacturer : Krylon Products Group
101 W. Prospect Avenue
Cleveland, OH 44115

Emergency telephone number of the company : US / Canada: (216) 566-2917
Mexico: SETIQ 01-800-00-214-00 / (52) 55-5559-1588 24 hours / 365 days a year

Product Information Telephone Number : US / Canada: (800) 457-9566
Mexico: Not Available

Regulatory Information Telephone Number : US / Canada: (216) 566-2902
Mexico: Not Available

Transportation Emergency Telephone Number : US / Canada: (216) 566-2917
Mexico: SETIQ 01-800-00-214-00 / (52) 55-5559-1588 24 hours / 365 days a year

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE AEROSOLS - Category 1
GASES UNDER PRESSURE - Compressed gas
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
CARCINOGENICITY - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
ASPIRATION HAZARD - Category 1

Percentage of the mixture consisting of ingredient(s) of unknown acute oral toxicity: 12.7%
Percentage of the mixture consisting of ingredient(s) of unknown acute dermal toxicity: 16.7%
Percentage of the mixture consisting of ingredient(s) of unknown acute inhalation toxicity: 16.7%

GHS label elements

Section 2. Hazards identification

Hazard pictograms :

Signal word : Danger

Hazard statements : Extremely flammable aerosol.
Contains gas under pressure; may explode if heated.
Causes serious eye irritation.
Causes skin irritation.
Suspected of causing cancer.
May be fatal if swallowed and enters airways.
May cause respiratory irritation.
May cause drowsiness or dizziness.
May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

General : Read label before use. Keep out of reach of children. If medical advice is needed, have product container or label at hand.

Prevention : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Use only outdoors or in a well-ventilated area. Do not breathe dust or mist. Wash hands thoroughly after handling. Pressurized container: Do not pierce or burn, even after use.

Response : Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Storage : Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Store in a well-ventilated place.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements : DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Please refer to the SDS for additional information. Keep out of reach of children. Keep upright in a cool, dry place. Do not discard empty can in trash compactor.

Hazards not otherwise classified : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Not available.

CAS number/other identifiers

Section 3. Composition/information on ingredients

Ingredient name	% by weight	CAS number
Acetone	≥25 - ≤50	67-64-1
n-Butyl Acetate	≥10 - ≤25	123-86-4
Propane	≥10 - ≤25	74-98-6
Butane	≥10 - ≤25	106-97-8
Ethyl 3-Ethoxypropionate	≤5	763-69-9
Xylene, mixed isomers	≤3	1330-20-7
Hydrotreated Heavy Petroleum Naphtha	<1	64742-48-9
Ethylbenzene	<1	100-41-4

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.

Skin contact : Causes skin irritation.

Ingestion : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

Section 4. First aid measures

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : Adverse symptoms may include the following:
nausea or vomiting

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : Extremely flammable aerosol. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Avoid breathing gas. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Protect from sunlight. Store locked up. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	CAS #	Exposure limits
Acetone	67-64-1	**ACGIH TLV (United States, 3/2019).** TWA: 250 ppm 8 hours. STEL: 500 ppm 15 minutes. **NIOSH REL (United States, 10/2016).** TWA: 250 ppm 10 hours. TWA: 590 mg/m³ 10 hours. **OSHA PEL (United States, 5/2018).** TWA: 1000 ppm 8 hours. TWA: 2400 mg/m³ 8 hours.
n-Butyl Acetate	123-86-4	**NIOSH REL (United States, 10/2016).** TWA: 150 ppm 10 hours. TWA: 710 mg/m³ 10 hours. STEL: 200 ppm 15 minutes. STEL: 950 mg/m³ 15 minutes. **OSHA PEL (United States, 5/2018).** TWA: 150 ppm 8 hours. TWA: 710 mg/m³ 8 hours. **ACGIH TLV (United States, 3/2019).** STEL: 150 ppm 15 minutes. TWA: 50 ppm 8 hours.
Propane	74-98-6	**NIOSH REL (United States, 10/2016).** TWA: 1000 ppm 10 hours. TWA: 1800 mg/m³ 10 hours. **OSHA PEL (United States, 5/2018).** TWA: 1000 ppm 8 hours. TWA: 1800 mg/m³ 8 hours. **ACGIH TLV (United States, 3/2019). Oxygen Depletion [Asphyxiant]. Explosive potential.**
Butane	106-97-8	**NIOSH REL (United States, 10/2016).** TWA: 800 ppm 10 hours. TWA: 1900 mg/m³ 10 hours. **ACGIH TLV (United States, 3/2019).** **Explosive potential.** STEL: 1000 ppm 15 minutes.
Ethyl 3-Ethoxypropionate	763-69-9	None.
Xylene, mixed isomers	1330-20-7	**ACGIH TLV (United States, 3/2019).** TWA: 100 ppm 8 hours. TWA: 434 mg/m³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 651 mg/m³ 15 minutes. **OSHA PEL (United States, 5/2018).** TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours.
Hydrotreated Heavy Petroleum Naphtha	64742-48-9	None.

Ethylbenzene	100-41-4	**ACGIH TLV (United States, 3/2019).** TWA: 20 ppm 8 hours. **NIOSH REL (United States, 10/2016).** TWA: 100 ppm 10 hours. TWA: 435 mg/m³ 10 hours. STEL: 125 ppm 15 minutes. STEL: 545 mg/m³ 15 minutes. **OSHA PEL (United States, 5/2018).** TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours.

Occupational exposure limits (Canada)

Ingredient name	CAS #	Exposure limits
Acetone	67-64-1	**CA Alberta Provincial (Canada, 6/2018).** 8 hrs OEL: 1200 mg/m³ 8 hours. 15 min OEL: 1800 mg/m³ 15 minutes. 8 hrs OEL: 500 ppm 8 hours. 15 min OEL: 750 ppm 15 minutes. **CA British Columbia Provincial (Canada, 5/2019).** TWA: 250 ppm 8 hours. STEL: 500 ppm 15 minutes. **CA Ontario Provincial (Canada, 1/2018).** TWA: 250 ppm 8 hours. STEL: 500 ppm 15 minutes. **CA Quebec Provincial (Canada, 1/2014).** TWAEV: 500 ppm 8 hours. TWAEV: 1190 mg/m³ 8 hours. STEV: 1000 ppm 15 minutes. STEV: 2380 mg/m³ 15 minutes. **CA Saskatchewan Provincial (Canada, 7/2013).** STEL: 750 ppm 15 minutes. TWA: 500 ppm 8 hours.
Normal butyl acetate	123-86-4	**CA Alberta Provincial (Canada, 6/2018).** 15 min OEL: 200 ppm 15 minutes. 15 min OEL: 950 mg/m³ 15 minutes. 8 hrs OEL: 150 ppm 8 hours. 8 hrs OEL: 713 mg/m³ 8 hours. **CA British Columbia Provincial (Canada, 5/2019).** TWA: 20 ppm 8 hours. **CA Ontario Provincial (Canada, 1/2018).** TWA: 150 ppm 8 hours. STEL: 200 ppm 15 minutes. **CA Quebec Provincial (Canada, 1/2014).** TWAEV: 150 ppm 8 hours. TWAEV: 713 mg/m³ 8 hours. STEV: 200 ppm 15 minutes. STEV: 950 mg/m³ 15 minutes. **CA Saskatchewan Provincial (Canada, 7/2013).** STEL: 200 ppm 15 minutes. TWA: 150 ppm 8 hours.
Normal propane	74-98-6	**CA Alberta Provincial (Canada, 6/2018).** 8 hrs OEL: 1000 ppm 8 hours.

		CA Quebec Provincial (Canada, 1/2014). TWAEV: 1000 ppm 8 hours. TWAEV: 1800 mg/m³ 8 hours. **CA Ontario Provincial (Canada, 1/2018).** TWA: 1000 ppm 8 hours. **CA Saskatchewan Provincial (Canada, 7/2013).** STEL: 1250 ppm 15 minutes. TWA: 1000 ppm 8 hours. **CA British Columbia Provincial (Canada, 5/2019). Oxygen Depletion [Asphyxiant]. Explosive potential.**
Butane	106-97-8	**CA Alberta Provincial (Canada, 6/2018).** 8 hrs OEL: 1000 ppm 8 hours. **CA Quebec Provincial (Canada, 1/2014).** TWAEV: 800 ppm 8 hours. TWAEV: 1900 mg/m³ 8 hours. **CA Ontario Provincial (Canada, 1/2018).** TWA: 800 ppm 8 hours. **CA Saskatchewan Provincial (Canada, 7/2013).** STEL: 1250 ppm 15 minutes. TWA: 1000 ppm 8 hours. **CA British Columbia Provincial (Canada, 5/2019). Explosive potential.** STEL: 1000 ppm 15 minutes.
Xylene	1330-20-7	**CA Alberta Provincial (Canada, 6/2018).** 8 hrs OEL: 100 ppm 8 hours. 15 min OEL: 651 mg/m³ 15 minutes. 15 min OEL: 150 ppm 15 minutes. 8 hrs OEL: 434 mg/m³ 8 hours. **CA British Columbia Provincial (Canada, 5/2019).** TWA: 100 ppm 8 hours. STEL: 150 ppm 15 minutes. **CA Quebec Provincial (Canada, 1/2014).** TWAEV: 100 ppm 8 hours. TWAEV: 434 mg/m³ 8 hours. STEV: 150 ppm 15 minutes. STEV: 651 mg/m³ 15 minutes. **CA Ontario Provincial (Canada, 1/2018).** STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours. **CA Saskatchewan Provincial (Canada, 7/2013).** STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.
Ethylbenzene	100-41-4	**CA Alberta Provincial (Canada, 6/2018).** 8 hrs OEL: 100 ppm 8 hours. 8 hrs OEL: 434 mg/m³ 8 hours. 15 min OEL: 543 mg/m³ 15 minutes. 15 min OEL: 125 ppm 15 minutes. **CA British Columbia Provincial (Canada, 5/2019).** TWA: 20 ppm 8 hours. **CA Ontario Provincial (Canada, 1/2018).** TWA: 20 ppm 8 hours.

		CA Quebec Provincial (Canada, 1/2014). TWAEV: 100 ppm 8 hours. TWAEV: 434 mg/m³ 8 hours. STEV: 125 ppm 15 minutes. STEV: 543 mg/m³ 15 minutes. **CA Saskatchewan Provincial (Canada, 7/2013).** STEL: 125 ppm 15 minutes. TWA: 100 ppm 8 hours.

Occupational exposure limits (Mexico)

	CAS #	Exposure limits
Acetone	67-64-1	**NOM-010-STPS-2014 (Mexico, 4/2016).** TWA: 500 ppm 8 hours. STEL: 750 ppm 15 minutes.
n-Butyl Acetate	123-86-4	**NOM-010-STPS-2014 (Mexico, 4/2016).** TWA: 150 ppm 8 hours. STEL: 200 ppm 15 minutes.
Propane	74-98-6	**NOM-010-STPS-2014 (Mexico, 4/2016).** TWA: 1000 ppm 8 hours.
Butane	106-97-8	**NOM-010-STPS-2014 (Mexico, 4/2016).** TWA: 1000 ppm 8 hours.
Xylene, mixed isomers	1330-20-7	**NOM-010-STPS-2014 (Mexico, 4/2016).** STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.
Ethylbenzene	100-41-4	**NOM-010-STPS-2014 (Mexico, 4/2016).** TWA: 20 ppm 8 hours.

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Section 8. Exposure controls/personal protection

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.

Color : Not available.

Odor : Not available.

Odor threshold : Not available.

pH : Not available.

Melting point/freezing point : Not available.

Boiling point/boiling range : Not available.

Flash point : Closed cup: -29°C (-20.2°F) [Pensky-Martens Closed Cup]

Evaporation rate : 5.6 (butyl acetate = 1)

Flammability (solid, gas) : Not available.

Lower and upper explosive (flammable) limits : Lower: 1%
Upper: 12.8%

Vapor pressure : 101.3 kPa (760 mm Hg) [at 20°C]

Vapor density : 1.55 [Air = 1]

Relative density : 0.74

Solubility : Not available.

Partition coefficient: n-octanol/water : Not available.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : Kinematic (40°C (104°F)): <0.205 cm^2/s (<20.5 cSt)

Molecular weight : Not applicable.

Aerosol product

Type of aerosol : Spray

Heat of combustion : 29.511 kJ/g

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Section 10. Stability and reactivity

Conditions to avoid : Avoid all possible sources of ignition (spark or flame).

Incompatible materials : No specific data.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Acetone	LD50 Oral	Rat	5800 mg/kg	-
n-Butyl Acetate	LD50 Dermal	Rabbit	>17600 mg/kg	-
	LD50 Oral	Rat	10768 mg/kg	-
Butane	LC50 Inhalation Vapor	Rat	658000 mg/m³	4 hours
Ethyl 3-Ethoxypropionate	LD50 Oral	Rat	3200 mg/kg	-
Xylene, mixed isomers	LC50 Inhalation Gas.	Rat	5000 ppm	4 hours
	LD50 Oral	Rat	4300 mg/kg	-
Hydrotreated Heavy Petroleum Naphtha	LC50 Inhalation Vapor	Rat	8500 mg/m³	4 hours
	LD50 Oral	Rat	>6 g/kg	-
Ethylbenzene	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	3500 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Acetone	Eyes - Mild irritant	Human	-	186300 ppm	-
	Eyes - Mild irritant	Rabbit	-	10 Ul	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Eyes - Severe irritant	Rabbit	-	20 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Mild irritant	Rabbit	-	395 mg	-
n-Butyl Acetate	Eyes - Moderate irritant	Rabbit	-	100 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
Ethyl 3-Ethoxypropionate	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
Xylene, mixed isomers	Eyes - Mild irritant	Rabbit	-	87 mg	-
	Eyes - Severe irritant	Rabbit	-	24 hours 5 mg	-
	Skin - Mild irritant	Rat	-	8 hours 60 Ul	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Moderate irritant	Rabbit	-	100 %	-
Ethylbenzene	Eyes - Severe irritant	Rabbit	-	500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 15 mg	-

Sensitization

Not available.

Mutagenicity

Section 11. Toxicological information

Not available.

Carcinogenicity

Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
Xylene, mixed isomers	-	3	-
Ethylbenzene	-	2B	-

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Acetone	Category 3	Not applicable.	Narcotic effects
	Category 3	Not applicable.	Respiratory tract irritation
n-Butyl Acetate	Category 3	Not applicable.	Narcotic effects
Propane	Category 3	Not applicable.	Narcotic effects
	Category 3	Not applicable.	Respiratory tract irritation
Butane	Category 3	Not applicable.	Narcotic effects
	Category 3	Not applicable.	Respiratory tract irritation
Xylene, mixed isomers	Category 3	Not applicable.	Respiratory tract irritation
Hydrotreated Heavy Petroleum Naphtha	Category 3	Not applicable.	Narcotic effects
	Category 3	Not applicable.	Respiratory tract irritation
Ethylbenzene	Category 3	Not applicable.	Narcotic effects
	Category 3	Not applicable.	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Acetone	Category 2	Not determined	Not determined
Propane	Category 2	Not determined	Not determined
Butane	Category 2	Not determined	Not determined
Xylene, mixed isomers	Category 2	Not determined	Not determined
Hydrotreated Heavy Petroleum Naphtha	Category 2	Not determined	Not determined
Ethylbenzene	Category 2	Not determined	Not determined

Aspiration hazard

Name	Result
Propane	ASPIRATION HAZARD - Category 1
Butane	ASPIRATION HAZARD - Category 1
Xylene, mixed isomers	ASPIRATION HAZARD - Category 1
Hydrotreated Heavy Petroleum Naphtha	ASPIRATION HAZARD - Category 1
Ethylbenzene	ASPIRATION HAZARD - Category 1

Section 11. Toxicological information

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.

Skin contact : Causes skin irritation.

Ingestion : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : Adverse symptoms may include the following:
nausea or vomiting

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : May cause damage to organs through prolonged or repeated exposure.

Carcinogenicity : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Section 11. Toxicological information

Route	ATE value
Oral	49261.49 mg/kg
Dermal	40862.21 mg/kg
Inhalation (gases)	185737.32 ppm

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Acetone	Acute EC50 7200000 µg/l Fresh water	Algae - Selenastrum sp.	96 hours
	Acute LC50 6000000 µg/l Fresh water	Crustaceans - Gammarus pulex	48 hours
	Acute LC50 6900 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 5600 ppm Fresh water	Fish - Poecilia reticulata	96 hours
	Chronic NOEC 4.95 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Chronic NOEC 0.016 ml/L Fresh water	Crustaceans - Daphniidae	21 days
	Chronic NOEC 0.1 ml/L Fresh water	Daphnia - Daphnia magna - Neonate	21 days
	Chronic NOEC 0.1 mg/l Fresh water	Fish - Fundulus heteroclitus	4 weeks
n-Butyl Acetate	Acute LC50 32 mg/l Marine water	Crustaceans - Artemia salina	48 hours
	Acute LC50 18000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
Xylene, mixed isomers	Acute LC50 8500 µg/l Marine water	Crustaceans - Palaemonetes pugio	48 hours
	Acute LC50 13400 µg/l Fresh water	Fish - Pimephales promelas	96 hours
Ethylbenzene	Acute EC50 4600 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute EC50 3600 µg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Acute EC50 6.53 mg/l Marine water	Crustaceans - Artemia sp. - Nauplii	48 hours
	Acute EC50 2.93 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 4200 µg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Acetone	-	-	Readily
n-Butyl Acetate	-	-	Readily
Xylene, mixed isomers	-	-	Readily
Hydrotreated Heavy Petroleum Naphtha	-	-	Readily
Ethylbenzene	-	-	Readily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Xylene, mixed isomers	-	8.1 to 25.9	low
Hydrotreated Heavy Petroleum Naphtha	-	10 to 2500	high

Mobility in soil

Section 12. Ecological information

Soil/water partition coefficient (K_{OC}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	UN1950	UN1950	UN1950	UN1950	UN1950
UN proper shipping name	AEROSOLS	AEROSOLS	AEROSOLS	AEROSOLS, flammable	AEROSOLS
Transport hazard class(es)	2.1 	2.1 	2.1 	2.1 	2.1 
Packing group	-	-	-	-	-
Environmental hazards	No.	No.	No.	No.	No.
Additional information	- **ERG No.** 126	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.13-2.17 (Class 2). **ERG No.** 126	- **ERG No.** 126	-	**Emergency schedules** F-D, S-U

Special precautions for user : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

Section 14. Transport information

Transport in bulk according to Annex II of MARPOL and the IBC Code : Not available.

Proper shipping name : Not available.

Ship type : Not available.

Pollution category : Not available.

Section 15. Regulatory information

SARA 313

SARA 313 (40 CFR 372.45) supplier notification can be found on the Environmental Data Sheet.

California Prop. 65

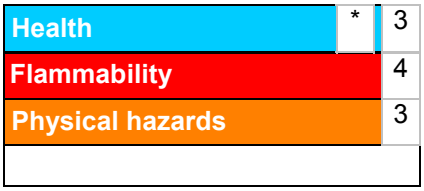
WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

International regulations

International lists : **Australia inventory (AICS)**: Not determined.
China inventory (IECSC): Not determined.
Japan inventory (ENCS): Not determined.
Japan inventory (ISHL): Not determined.
Korea inventory (KECI): Not determined.
New Zealand Inventory of Chemicals (NZIoC): Not determined.
Philippines inventory (PICCS): Not determined.
Taiwan Chemical Substances Inventory (TCSI): Not determined.
Thailand inventory: Not determined.
Turkey inventory: Not determined.
Vietnam inventory: Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

Procedure used to derive the classification

Classification	Justification
FLAMMABLE AEROSOLS - Category 1	On basis of test data
GASES UNDER PRESSURE - Compressed gas	Calculation method
SKIN CORROSION/IRRITATION - Category 2	Calculation method
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A	Calculation method
CARCINOGENICITY - Category 2	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3	Calculation method

Section 16. Other information

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2	Calculation method
ASPIRATION HAZARD - Category 1	Calculation method

History

Date of printing : 11/30/2019

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Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations

Indicates information that has changed from previously issued version.

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

SAFETY DATA SHEET

7790

Section 1. Identification

Product name : TOUGH COAT® Advanced
Semi-Gloss Black

Product code : 7790

Other means of identification : Not available.

Product type : Aerosol.

Relevant identified uses of the substance or mixture and uses advised against

Paint or paint related material.

Manufacturer : Krylon Products Group
101 Prospect Avenue NW
Cleveland, OH 44115

Emergency telephone number of the company : US/Canada: (800) 424-9300
Mexico: CHEMTREC Mexico 800-681-9531. Available 24 hours and 365 days per year

Product Information Telephone Number : US/Canada: (800) 247-3266
Mexico: Not Available

Transportation Emergency Telephone Number : US/Canada: (800) 424-9300
Mexico: SETIQ 800-00-214-00 / 55-5559-1588 Available 24 hours and 365 days a year

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : AEROSOLS - Category 1
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 2
TOXIC TO REPRODUCTION - Category 1B
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3

Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 17% (oral), 17% (dermal), 21% (inhalation)

GHS label elements

Hazard pictograms :

Signal word : Danger

Hazard statements : Extremely flammable aerosol. Pressurized container: may burst if heated.
May cause an allergic skin reaction.
Causes serious eye irritation.
May cause drowsiness or dizziness.
Suspected of causing cancer.
May damage fertility or the unborn child.

Precautionary statements

Section 2. Hazards identification

Prevention : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing, eye protection, face protection, or hearing protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Use only outdoors or in a well-ventilated area. Avoid breathing dust or mist. Wash thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Do not pierce or burn, even after use.

Response : IF exposed or concerned: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. Take off contaminated clothing and wash it before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.

Storage : Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F. Store in a well-ventilated place. Keep container tightly closed.

Disposal : Dispose of contents and container in accordance with all local, regional, national and international regulations.

Supplemental label elements

DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. FOR INDUSTRIAL USE ONLY.

Please refer to the SDS for additional information. Keep out of reach of children. Keep upright in a cool, dry place. Do not discard empty can in trash compactor.

Hazards not otherwise classified : DANGER: Rags, steel wool, other waste soaked with this product, and sanding residue may spontaneously catch fire if improperly discarded. Immediately place rags, steel wool, other waste soaked with this product, and sanding residue in a sealed, water-filled, metal container. Dispose of in accordance with local fire regulations.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Other means of identification : Not available.

CAS number/other identifiers

Ingredient name	% by weight	Identifiers
Acetone	≥25 - ≤50	67-64-1
Propane	≥10 - ≤25	74-98-6
Butane	≤10	106-97-8
n-Butyl Acetate	≤10	123-86-4
2-Propoxyethanol	≤5	2807-30-9
2-methoxy-1-methylethyl acetate	≤3	108-65-6
Carbon Black	≤1	1333-86-4
Zirconium 2-Ethylhexanoate	≤0.3	22464-99-9
Methyl Ethyl Ketoxime	≤0.3	96-29-7
Light Aromatic Hydrocarbons	≤0.3	64742-95-6
Cobalt 2-Ethylhexanoate	≤0.3	136-52-7
Hydrotreated Heavy Petroleum Naphtha	≤0.3	64742-48-9

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.

Skin contact : May cause an allergic skin reaction.

Ingestion : Can cause central nervous system (CNS) depression.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Section 4. First aid measures

Skin contact : Adverse symptoms may include the following:
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments : No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

Specific hazards arising from the chemical : Extremely flammable aerosol. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Bursting aerosol containers may be propelled from a fire at high speed.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Remark : Flammable aerosol.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurized contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing gas. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous.

Advice on general occupational hygiene : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Section 7. Handling and storage

Conditions for safe storage, including any incompatibilities : Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits (OSHA United States)

Ingredient name	CAS #	Exposure limits
Acetone	67-64-1	**ACGIH TLV (United States, 1/2024)** A4. TWA 8 hours: 250 ppm. STEL 15 minutes: 500 ppm. **NIOSH REL (United States, 10/2020)** TWA 10 hours: 250 ppm. TWA 10 hours: 590 mg/m³. **OSHA PEL (United States, 5/2018)** TWA 8 hours: 1000 ppm. TWA 8 hours: 2400 mg/m³.
Propane	74-98-6	**ACGIH TLV (United States, 1/2024)** Oxygen depletion [asphyxiant] , Explosive potential. **NIOSH REL (United States, 10/2020)** TWA 10 hours: 1000 ppm. TWA 10 hours: 1800 mg/m³. **OSHA PEL (United States, 5/2018)** TWA 8 hours: 1000 ppm. TWA 8 hours: 1800 mg/m³.
Butane	106-97-8	**ACGIH TLV (United States, 1/2024) [Butane]** Explosive potential. STEL 15 minutes: 1000 ppm. **NIOSH REL (United States, 10/2020)** TWA 10 hours: 800 ppm. TWA 10 hours: 1900 mg/m³.
n-Butyl Acetate	123-86-4	**ACGIH TLV (United States, 1/2024) [Butyl acetates]** STEL 15 minutes: 150 ppm. TWA 8 hours: 50 ppm. **NIOSH REL (United States, 10/2020)** TWA 10 hours: 150 ppm. TWA 10 hours: 710 mg/m³. STEL 15 minutes: 200 ppm. STEL 15 minutes: 950 mg/m³. **OSHA PEL (United States, 5/2018)** TWA 8 hours: 150 ppm. TWA 8 hours: 710 mg/m³.
2-Propoxyethanol	2807-30-9	None.
2-methoxy-1-methylethyl acetate	108-65-6	**OARS WEEL (United States, 9/2024)** TWA 8 hours: 50 ppm.
Carbon Black	1333-86-4	**ACGIH TLV (United States, 1/2024)** A3. TWA 8 hours: 3 mg/m³. Form: Inhalable fraction. **NIOSH REL (United States, 10/2020)** NIA. TWA 10 hours: 3.5 mg/m³. TWA 10 hours: 0.1 mg/m³ (as cyclohexane-extractable fraction).

Section 8. Exposure controls/personal protection

		OSHA PEL (United States, 5/2018) TWA 8 hours: 3.5 mg/m³.
Zirconium 2-Ethylhexanoate	22464-99-9	**ACGIH TLV (United States, 1/2024) [Zirconium and compounds]** A4. TWA 8 hours: 5 mg/m³ (as Zr). STEL 15 minutes: 10 mg/m³ (as Zr). **NIOSH REL (United States, 10/2020) [zirconium compounds]** TWA 10 hours: 5 mg/m³ (as Zr). STEL 15 minutes: 10 mg/m³ (as Zr). **OSHA PEL (United States, 5/2018) [Zirconium compounds]** TWA 8 hours: 5 mg/m³ (as Zr).
Methyl Ethyl Ketoxime	96-29-7	**OARS WEEL (United States, 9/2024)** Skin sensitizer. TWA 8 hours: 10 ppm.
Light Aromatic Hydrocarbons	64742-95-6	None.
Cobalt 2-Ethylhexanoate	136-52-7	**ACGIH TLV (United States, 1/2024) [cobalt and inorganic compounds]** A3. Skin sensitizer , Inhalation sensitizer. TWA 8 hours: 0.02 mg/m³ (as Co).
Hydrotreated Heavy Petroleum Naphtha	64742-48-9	None.

Occupational exposure limits (Canada)

Ingredient name	CAS #	Exposure limits
acetone	67-64-1	**CA Saskatchewan Provincial (Canada, 4/2021)** STEL 15 minutes: 750 ppm. TWA 8 hours: 500 ppm. **CA British Columbia Provincial (Canada, 9/2024)** TWA 8 hours: 250 ppm. STEL 15 minutes: 500 ppm. **CA Ontario Provincial (Canada, 6/2019)** TWA 8 hours: 250 ppm. STEL 15 minutes: 500 ppm. **CA Quebec Provincial (Canada, 2/2024)** TWAEV 8 hours: 250 ppm. STEV 15 minutes: 500 ppm. **CA Alberta Provincial (Canada, 3/2023)** OEL 8 hours: 1200 mg/m³. OEL 15 minutes: 1800 mg/m³. OEL 8 hours: 500 ppm. OEL 15 minutes: 750 ppm.
Normal propane	74-98-6	**CA Saskatchewan Provincial (Canada, 4/2021)** STEL 15 minutes: 1250 ppm. TWA 8 hours: 1000 ppm. **CA British Columbia Provincial (Canada, 9/2024)** Oxygen depletion [asphyxiant] , Explosive potential. **CA Ontario Provincial (Canada, 6/2019)** Oxygen depletion [asphyxiant] , Explosive potential. **CA Quebec Provincial (Canada, 2/2024)** Oxygen depletion [asphyxiant] , Explosive

Section 8. Exposure controls/personal protection

		potential. **CA Alberta Provincial (Canada, 3/2023)** OEL 8 hours: 1000 ppm.
Butane	106-97-8	**CA Saskatchewan Provincial (Canada, 4/2021) [Aliphatic hydrocarbon gases, Alkane [C1-C4]]** STEL 15 minutes: 1250 ppm. TWA 8 hours: 1000 ppm. **CA Saskatchewan Provincial (Canada, 4/2021) [Butane]** STEL 15 minutes: 1250 ppm. TWA 8 hours: 1000 ppm. **CA British Columbia Provincial (Canada, 9/2024) [butane, all isomers]** Explosive potential. STEL 15 minutes: 1000 ppm. **CA Ontario Provincial (Canada, 6/2019) [Butane, All isomers]** Explosive potential. STEL 15 minutes: 1000 ppm. **CA Quebec Provincial (Canada, 2/2024)** TWAEV 8 hours: 800 ppm. TWAEV 8 hours: 1900 mg/m³. **CA Alberta Provincial (Canada, 3/2023)** OEL 8 hours: 1000 ppm.
n-butyl acetate	123-86-4	**CA Saskatchewan Provincial (Canada, 4/2021)** STEL 15 minutes: 200 ppm. TWA 8 hours: 150 ppm. **CA British Columbia Provincial (Canada, 9/2024) [butyl acetate, all isomers]** STEL 15 minutes: 150 ppm. TWA 8 hours: 50 ppm. **CA Ontario Provincial (Canada, 6/2019) [butyl acetates, all isomers]** STEL 15 minutes: 150 ppm. TWA 8 hours: 50 ppm. **CA Quebec Provincial (Canada, 2/2024) [butyl acetates]** STEV 15 minutes: 150 ppm. TWAEV 8 hours: 50 ppm. **CA Alberta Provincial (Canada, 3/2023)** OEL 15 minutes: 200 ppm. OEL 15 minutes: 950 mg/m³. OEL 8 hours: 150 ppm. OEL 8 hours: 713 mg/m³.
2-Propoxyethanol	2807-30-9	**CA Ontario Provincial (Canada, 6/2019)** Absorbed through skin. TWA 8 hours: 110 mg/m³. TWA 8 hours: 25 ppm.
Carbon black	1333-86-4	**CA Saskatchewan Provincial (Canada, 4/2021)** STEL 15 minutes: 7 mg/m³. TWA 8 hours: 3.5 mg/m³. **CA British Columbia Provincial (Canada, 9/2024)** Carc 2B. TWA 8 hours: 3 mg/m³. Form: Inhalable. **CA Ontario Provincial (Canada, 6/2019)**

Section 8. Exposure controls/personal protection

		TWA 8 hours: 3 mg/m³. Form: Inhalable particulate matter.. **CA Quebec Provincial (Canada, 2/2024)** C3. TWAEV 8 hours: 3 mg/m³. Form: inhalable aerosol fraction. **CA Alberta Provincial (Canada, 3/2023)** OEL 8 hours: 3.5 mg/m³.
Zirconium 2-Ethylhexanoate	22464-99-9	**CA British Columbia Provincial (Canada, 9/2024) [zirconium and compounds]** TWA 8 hours: 5 mg/m³ (as Zr). STEL 15 minutes: 10 mg/m³ (as Zr). **CA Ontario Provincial (Canada, 6/2019) [Zirconium and compounds]** STEL 15 minutes: 10 mg/m³ (as Zr). TWA 8 hours: 5 mg/m³ (as Zr). **CA Quebec Provincial (Canada, 2/2024) [Zirconium and compounds]** TWAEV 8 hours: 5 mg/m³ (as Zr). STEV 15 minutes: 10 mg/m³ (as Zr). **CA Alberta Provincial (Canada, 3/2023) [Zirconium and compounds]** OEL 8 hours: 5 mg/m³ (as Zr). OEL 15 minutes: 10 mg/m³ (as Zr).
Methyl Ethyl Ketoxime	96-29-7	**OARS WEEL (United States, 9/2024)** Skin sensitizer. TWA 8 hours: 10 ppm.
Cobalt 2-Ethylhexanoate	136-52-7	**CA Saskatchewan Provincial (Canada, 4/2021) [Cobalt and inorganic compounds]** STEL 15 minutes: 0.06 mg/m³ (measured as Co). TWA 8 hours: 0.02 mg/m³ (measured as Co). **CA British Columbia Provincial (Canada, 9/2024) [cobalt and inorganic compounds]** Carc 2B. Skin sensitizer. TWA 8 hours: 0.02 mg/m³ (as Co). Form: Inhalable. **CA Ontario Provincial (Canada, 6/2019) [Cobalt and inorganic compounds]** TWA 8 hours: 0.02 mg/m³ (as Co). **CA Quebec Provincial (Canada, 2/2024) [Cobalt elemental, and inorganic compounds]** C3. Skin sensitizer , Inhalation sensitizer. TWAEV 8 hours: 0.02 mg/m³ (as Co). Form: inhalable aerosol fraction.

Occupational exposure limits (Mexico)

Section 8. Exposure controls/personal protection

Ingredient name	CAS #	Exposure limits
Acetone	67-64-1	**NOM-010-STPS-2014 (Mexico, 4/2016)** A4. TWA 8 hours: 500 ppm. STEL 15 minutes: 750 ppm.
n-Butyl Acetate	123-86-4	**NOM-010-STPS-2014 (Mexico, 4/2016)** TWA 8 hours: 150 ppm. STEL 15 minutes: 200 ppm.
Zirconium 2-Ethylhexanoate	22464-99-9	**NOM-010-STPS-2014 (Mexico, 4/2016) [Circonio y compuestos]** A4. TWA 8 hours: 5 mg/m³ (as Zr). STEL 15 minutes: 10 mg/m³ (as Zr).
Cobalt 2-Ethylhexanoate	136-52-7	**NOM-010-STPS-2014 (Mexico, 4/2016) [Cobalto y compuestos inorgánicos]** A3. TWA 8 hours: 0.02 mg/m³ (as Co).

Biological exposure indices (United States)

Ingredient name	Exposure indices
Acetone	**ACGIH BEI (United States, 1/2024)** BEI: 25 mg/l, acetone [in urine]. Sampling time: end of shift.
Cobalt 2-Ethylhexanoate	**ACGIH BEI (United States, 1/2024) [cobalt and inorganic compounds including cobalt oxides]** BEI: 15 µg/l, not combined with tungsten carbide - cobalt [in urine]. Sampling time: end of shift at end of workweek. BEI: Nonquantitative: Biological monitoring should be considered for this compound based on the review; however, a specific BEI® could not be determined due to insufficient data., cobalt with tungsten carbide - cobalt [in urine]. Sampling time: end of shift at end of workweek.

Biological exposure indices (Canada)

No exposure indices known.

Biological exposure indices (Mexico)

Ingredient name	Exposure indices
Acetone	**Official Mexican STANDARD NOM-047-SSA1-2011, Environmental Health-Biological exposure indices for personnel occupationally exposed to chemical substances. (Mexico, 6/2012)** BEI: 50 mg/L [non-specific.The determinant is nonspecific, since it can be found after exposure to other chemicals.], acetone [in urine]. Sampling time: at the end of the work shift.
Cobalt 2-Ethylhexanoate	**Official Mexican STANDARD NOM-047-SSA1-2011, Environmental Health-Biological exposure indices for personnel occupationally exposed to chemical**

	substances. (Mexico, 6/2012) [cobalto] BEI: 1 µg/l [Basal level.The determinant may be present in the biological sample obtained from subjects who have not been occupationally exposed, at a concentration that could affect the interpretation of the results. These background levels are included in the valu; semi-quantitative.The biological determinant is an indicator of chemical exposure, but the quantitative interpretation of the measure is ambiguous. These biological determinants should be used as a screening test if a quantitative test is not possible.], cobalt [in blood]. Sampling time: at the end of the shift at the end of the work week. BEI: 15 µg/l [Basal level.The determinant may be present in the biological sample obtained from subjects who have not been occupationally exposed, at a concentration that could affect the interpretation of the results. These background levels are included in the valu], cobalt [in urine]. Sampling time: at the end of the shift at the end of the work week.

Appropriate engineering controls : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Section 8. Exposure controls/personal protection

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

Physical state : Liquid.

Color : Black.

Odor : Not available.

Odor threshold : Not available.

pH : Not applicable.

Melting point/freezing point : Not available.

Boiling point or initial boiling point and boiling range : Not available.

Flash point : Closed cup: -29°C (-20.2°F) [Pensky-Martens Closed Cup]

Evaporation rate : 5.6 (butyl acetate = 1)

Flammability : Flammable aerosol.

Lower and upper explosion limit/flammability limit : Lower: 1.26%
Upper: 15.8%

Vapor pressure : 101.3 kPa (760 mm Hg)

Relative vapor density : 1.55 [Air = 1]

Relative density : 0.75

Density : 0.74 g/cm³

Solubility(ies) :

Media	Result
cold water	Not soluble

Partition coefficient: n-octanol/water : Not applicable.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : Dynamic (room temperature): Not available.
Kinematic (room temperature): Not available.
Kinematic (40°C (104°F)): <20.5 mm^2/s (<20.5 cSt)

Molecular weight : Not applicable.

Particle characteristics

Median particle size : Not applicable.

Section 9. Physical and chemical properties

Aerosol product

Type of aerosol : Spray

Heat of combustion : 27.571 kJ/g

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid : Avoid all possible sources of ignition (spark or flame).

Incompatible materials : No specific data.

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result
Acetone	**Rat - Oral - LD50** 5800 mg/kg Toxic effects: Behavioral - Altered sleep time (including change in righting reflex) Behavioral - Tremor
Butane	**Rat - Inhalation - LC50 Vapor** 658000 mg/m³ [4 hours]
n-Butyl Acetate	**Rat - Oral - LD50** 10768 mg/kg Toxic effects: Behavioral - Somnolence (general depressed activity) Lung, Thorax, or Respiration - Other changes Liver - Other changes **Rabbit - Dermal - LD50** >17600 mg/kg
2-Propoxyethanol	**Rat - Oral - LD50** 3089 mg/kg Toxic effects: Behavioral - Tremor Lung, Thorax, or Respiration - Dyspnea Gross Metabolite Changes - Weight loss or decreased weight gain
2-methoxy-1-methylethyl acetate	**Rat - Oral - LD50** 8532 mg/kg **Rabbit - Dermal - LD50** >5 g/kg
Carbon Black	**Rat - Oral - LD50** >15400 mg/kg Toxic effects: Behavioral - Somnolence (general depressed activity)
Zirconium 2-Ethylhexanoate	**Rabbit - Dermal - LD50** >5 g/kg **Rat - Oral - LD50**

Section 11. Toxicological information

	>5 g/kg Toxic effects: Behavioral - Somnolence (general depressed activity)
Methyl Ethyl Ketoxime	**Rat - Oral - LD50** 930 mg/kg
Light Aromatic Hydrocarbons	**Rat - Oral - LD50** 8400 mg/kg Toxic effects: Behavioral - Somnolence (general depressed activity) Behavioral - Tremor Lung, Thorax, or Respiration - Other changes
Cobalt 2-Ethylhexanoate	**Rabbit - Dermal - LD50** >5 g/kg Toxic effects: Skin After topical exposure - Primary irritation **Rat - Oral - LD50** 1.22 g/kg Toxic effects: Behavioral - Ataxia Behavioral - Coma
Hydrotreated Heavy Petroleum Naphtha	**Rat - Oral - LD50** >6 g/kg **Rat - Inhalation - LC50 Vapor** 8500 mg/m³ [4 hours] Toxic effects: Lung, Thorax, or Respiration - Other changes

Conclusion/Summary [Product] : Not available.

Skin corrosion/irritation

Product/ingredient name	Result
Acetone	**Rabbit - Skin - Mild irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 500 mg **Rabbit - Skin - Mild irritant** Amount/concentration applied: 395 mg
n-Butyl Acetate	**Rabbit - Skin - Moderate irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 500 mg
2-Propoxyethanol	**Guinea pig - Skin - Mild irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 1 Ml **Rabbit - Skin - Mild irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 500 mg

Conclusion/Summary [Product] : Not available.

Serious eye damage/eye irritation

Product/ingredient name	Result
Acetone	**Human - Eyes - Mild irritant** Amount/concentration applied: 186300 ppm **Rabbit - Eyes - Mild irritant** Amount/concentration applied: 10 uL **Rabbit - Eyes - Moderate irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 20 mg **Rabbit - Eyes - Severe irritant** Amount/concentration applied: 20 mg

Section 11. Toxicological information

n-Butyl Acetate	**Rabbit - Eyes - Moderate irritant** Amount/concentration applied: 100 mg
2-Propoxyethanol	**Rabbit - Eyes - Severe irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 750 ug **Rabbit - Eyes - Severe irritant** Amount/concentration applied: 100 mg
Methyl Ethyl Ketoxime	**Rabbit - Eyes - Severe irritant** Amount/concentration applied: 100 uL
Light Aromatic Hydrocarbons	**Rabbit - Eyes - Mild irritant** Duration of treatment/exposure: 24 hours Amount/concentration applied: 100 uL

Conclusion/Summary [Product] : Not available.

Respiratory corrosion/irritation

Not available.

Conclusion/Summary [Product] : Not available.

Respiratory or skin sensitization

Not available.

Skin

Conclusion/Summary [Product] : Not available.

Respiratory

Conclusion/Summary [Product] : Not available.

Germ cell mutagenicity

Not available.

Conclusion/Summary [Product] : Not available.

Carcinogenicity

Not available.

Conclusion/Summary [Product] : Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP
Carbon Black	-	2B	-
Cobalt 2-Ethylhexanoate	-	2B	Reasonably anticipated to be a human carcinogen.

Reproductive toxicity

Not available.

Conclusion/Summary [Product] : Not available.

Section 11. Toxicological information

Specific target organ toxicity (single exposure)

Product/ingredient name	Result
Acetone	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
n-Butyl Acetate	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
2-Propoxyethanol	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
2-methoxy-1-methylethyl acetate	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
Methyl Ethyl Ketoxime	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (upper respiratory tract) - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
Light Aromatic Hydrocarbons	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Result
Methyl Ethyl Ketoxime	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (blood system) - Category 2

Aspiration hazard

Product/ingredient name	Result
Light Aromatic Hydrocarbons	ASPIRATION HAZARD - Category 1
Hydrotreated Heavy Petroleum Naphtha	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure

Not available.

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.

Skin contact : May cause an allergic skin reaction.

Ingestion : Can cause central nervous system (CNS) depression.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness

Section 11. Toxicological information

reduced fetal weight
increase in fetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

Conclusion/Summary [Product] : Not available.

General : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : May damage fertility or the unborn child.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
TOUGH COAT® Advanced	64491.9	22965.7	N/A	N/A	N/A
Acetone	5800	N/A	N/A	N/A	N/A
Butane	N/A	N/A	N/A	658	N/A
n-Butyl Acetate	10768	N/A	N/A	N/A	N/A
2-Propoxyethanol	3089	1100	N/A	N/A	N/A
2-methoxy-1-methylethyl acetate	8532	N/A	N/A	N/A	N/A
Methyl Ethyl Ketoxime	100	1100	N/A	N/A	N/A
Light Aromatic Hydrocarbons	8400	N/A	N/A	N/A	N/A
Cobalt 2-Ethylhexanoate	1220	N/A	N/A	N/A	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name	Result
Acetone	**Acute - EC50 - Fresh water** Algae - Green algae - *Selenastrum sp.* 7200 mg/l [96 hours] Effect: Population **Chronic - NOEC - Marine water** Algae - Green algae - *Ulva pertusa* 4.95 mg/l [96 hours] Effect: Reproduction **Chronic - NOEC - Fresh water** Crustaceans - Daphnia - *Daphniidae* 0.016 ml/l [21 days] Effect: Population **Chronic - NOEC - Marine water** Fish - Threespine stickleback - *Gasterosteus aculeatus* - Larvae Age: 7 days 5 µg/l [42 days] Effect: Population **Acute - LC50 - Marine water** ISO Crustaceans - Calanoid copepod - *Acartia tonsa* - Copepodid 4.42589 ml/l [48 hours] Effect: Mortality **Acute - LC50 - Fresh water** Fish - Guppy - *Poecilia reticulata* Age: 4 to 12 months; Size: 2 to 10 cm; Weight: 0.5 to 14 g 5600 ppm [96 hours] Effect: Mortality
n-Butyl Acetate	**Acute - LC50 - Fresh water** Fish - Fathead minnow - *Pimephales promelas* Age: 31 to 32 days; Size: 21.6 mm; Weight: 0.175 g 18 mg/l [96 hours] Effect: Mortality **Acute - LC50 - Marine water** Crustaceans - Brine shrimp - *Artemia salina* 32 mg/l [48 hours] Effect: Mortality
Methyl Ethyl Ketoxime	**Acute - LC50 - Fresh water** Fish - Fathead minnow - *Pimephales promelas* Age: 30 days; Size: 21.2 mm; Weight: 0.148 g 843 mg/l [96 hours] Effect: Mortality

Conclusion/Summary [Product] : Not available.

Persistence and degradability

Not available.

Conclusion/Summary [Product] : Not available.

Section 12. Ecological information

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Acetone	-	-	Readily
n-Butyl Acetate	-	-	Readily
Light Aromatic Hydrocarbons	-	-	Readily

Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Zirconium 2-Ethylhexanoate	-	2.96	Low
Methyl Ethyl Ketoxime	-	2.5 to 5.8	Low
Light Aromatic Hydrocarbons	-	10 to 2500	High
Cobalt 2-Ethylhexanoate	-	15600	High
Hydrotreated Heavy Petroleum Naphtha	-	10 to 2500	High

Mobility in soil

Soil/Water partition coefficient : Not available.

Other adverse effects

No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Do not puncture or incinerate container.

Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IATA	IMDG
UN number	UN1950	UN1950	UN1950	UN1950	UN1950
UN proper shipping name	AEROSOLS	AEROSOLS	AEROSOLS	AEROSOLS, flammable	AEROSOLS
Transport hazard class(es)	2.1 	2.1 	2.1 	2.1 	2.1 
Packing group	-	-	-	-	-
Environmental hazards	No.	No.	No.	No.	No.

Section 14. Transport information

Additional information	-	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.13-2.17 (Class 2).	-	-	**Emergency schedules** F-D, S-U
	ERG No. 126 Dependent upon container size, this product may ship under the Limited Quantity shipping exception.	**ERG No.** 126 Dependent upon container size, this product may ship under the Limited Quantity shipping exception.	**ERG No.** 126 Dependent upon container size, this product may ship under the Limited Quantity shipping exception.	Dependent upon container size, this product may ship under the Limited Quantity shipping exception.	Dependent upon container size, this product may ship under the Limited Quantity shipping exception.

Special precautions for user : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

Transport in bulk according to IMO instruments : Not available.

Proper shipping name : Not available.

Section 15. Regulatory information

U.S. Federal regulations :

SARA 313

All data given below are MAXIMUM THEORETICAL VALUES based on the product AS CURRENTLY FORMULATED and rely on information provided to us by our raw material suppliers. Our suppliers often provide an estimated value or range less than a certain upper limit. We calculate MAXIMUM THEORETICAL VALUES using defined values, if provided, or the upper limit reported by our supplier. Additionally, the suppliers' information may include amounts present in the product as unintentional byproducts or impurities. Variations may occur in individual batches due to adjustments made during production. Reporting of chemicals in this section does not necessarily indicate their presence in the final formulated product.

Ingredient name	% by weight	CAS number
Mercury (as Hg)	0.0000003	
2-Propoxyethanol	4	2807-30-9
Glycol Ethers (SARA)	4	
Cobalt Compound	0.1	
Lead (as Pb)	0.000006	

California Prop. 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

International regulations

Montreal Protocol

Not listed.

Section 15. Regulatory information

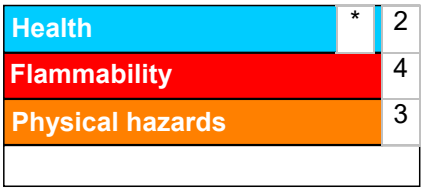
Stockholm Convention on Persistent Organic Pollutants

Not listed.

International lists : **Australia inventory (AIIC)**: Not determined.
China inventory (IECSC): Not determined.
Japan inventory (CSCL): Not determined.
Japan inventory (ISHL): Not determined.
Korea inventory (KECI): Not determined.
New Zealand Inventory of Chemicals (NZIoC): Not determined.
Philippines inventory (PICCS): Not determined.
Taiwan Chemical Substances Inventory (TCSI): Not determined.
Thailand inventory: Not determined.
Turkey inventory: Not determined.
Vietnam inventory: Not determined.

Section 16. Other information

Hazardous Material Information System (U.S.A.)



The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.

Procedure used to derive the classification

Classification	Justification
AEROSOLS - Category 1	On basis of test data
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A	Calculation method
SKIN SENSITIZATION - Category 1	Calculation method
CARCINOGENICITY - Category 2	Calculation method
TOXIC TO REPRODUCTION - Category 1B	Calculation method
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3	Calculation method

History

Date of printing : 7/26/2025

Date of issue/Date of revision : 7/26/2025

Date of previous issue : 6/4/2025

Version : 14.01

Key to abbreviations : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973

Section 16. Other information

as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations

Indicates information that has changed from previously issued version.

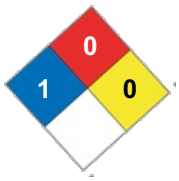
Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Products shall not be repackaged, modified, or tinted except as specifically instructed by the manufacturer, including but not limited to the incorporation of products not specified by the manufacturer, or the use or addition of products in proportions not specified by the manufacturer. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.

Metabo Corporation

Organic Bonded Grinding Wheels

NFPA



SECTION 1 : Chemical Product and Company Identification

MSDS Name: Organic Bonded Grinding Wheels
Manufacturer Name:Metabo Corporation
Address:
1231 Wilson Drive
West Chester, PA 19380

Emergency Telephone ##: (800) 638-2264

Product Description:
TYPE: Any Grade

Manufacturer MSDS Revision Date:
11/11/03

Trade Names:
Organic Bonded Grinding Wheels

Chemical Family: Any Grade
NFPA
Health: 1
Flammability: 0
Reactivity: 0
Other:
Contact: Richard E. Lawson

Common Name or Specification: Organic Bonded Grinding Wheels

HAZARD RATING:
Please rate consistent with NFPA Code

Product Codes:

TOP

SECTION 2 : Hazardous Ingredients/Identity Information

Chemical Name	CAS#	Percent	
Alpha-Alumina	1344-28-1	MAX: 90%	

OSHA PEL TWA: 10 mg/m3 (Total Dust)
ACGIH TLV TWA: 10 mg/m3 (Total Dust)
Carcinogen: No
COMMON NAME: Aluminum Oxide

REG*: Yes

Chemical Name	CAS#	Percent	
Silicon Carbide	409-21-2	MAX: 90%	

OSHA PEL TWA: 10 mg/m3 (Total Dust)
ACGIH TLV TWA: 10 mg/m3 (Total Dust)
Carcinogen: No
COMMON NAME: Silicon Carbide

REG*: Yes

Chemical Name	CAS#	Percent	
Zirconia Alumina	70692-95-4	MAX: 90%	

OSHA PEL TWA: 5 mg/m3 (as Zirconium)

ACGIH TLV TWA: 5 mg/m3 (as Zirconium)

Carcinogen: No

COMMON NAME: Zirconia Alumina

REG*: Yes

Chemical Name	CAS#	Percent	
Fluorides (as F)	15096-52-3	MAX: 3%	

OSHA PEL TWA: 2.5 mg/m3

ACGIH TLV TWA: 2.5 mg/m3

Carcinogen: No

COMMON NAME: Cryolite

REG*: Yes

Chemical Name	CAS#	Percent	
Pyrite FeS2	1309-36-0	MAX: 2%	

OSHA PEL TWA: No Applicable Information Found

ACGIH TLV TWA: 2.0 mg/m3

Carcinogen: No

COMMON NAME: Pyrite

REG*: Yes

Chemical Name	CAS#	Percent	
Glass, Fibrous or Dust	65997-17-3	MAX: 10%	

OSHA PEL TWA: 15 mg/m3-Total Dust

ACGIH TLV TWA: 10 mg/m3-Total Dust

Carcinogen: No

COMMON NAME: Fiberglass

REG*: Yes

Comments:

COMPOSITION PER 29CFR 1910.1200 (G) (4).

The grinding wheel may be comprised of 1 or more of the following abrasives:
Chemical Name: Alpha-Alumina
Chemical Name: Silicon Carbide
Chemical Name: Zirconia Alumina

The chemicals listed below may be a part of the bond system:
Chemical Name: Fluorides (as F)
Chemical Name: Pyrite FeS2
Chemical Name: Glass, Fibrous or Dust

TOP

SECTION 3 : Physical And Chemical Characteristics

Physical State/Appearance:

Solid Product

Odor:

May give off odor in use.

Vapor Pressure:

No Applicable Information Found

Vapor Density:

No Applicable Information Found

Boiling Point:

No Applicable Information Found

Melting Point:

No Applicable Information Found

Solubility:

IN WATER: Slight

IN ALCOHOL: No Applicable Information Found

IN OTHER SOLVENT: No Applicable Information Found

Specific Gravity:
2-4

Evaporation Point:
No Applicable Information Found

Percent Volatile:
BY VOL: No Applicable Information Found

FlashPoint:
No Applicable Information Found

Upper Flammable Explosive Limit:
Not Applicable

Lower Flammable Explosive Limit:
Not Applicable

TOP

SECTION 4 : Fire And Explosion Hazards

Explosion:
EXPLOSION POTENTIAL: No Applicable Information Found

Flash Point:
No Applicable Information Found

Flash Point Method:
Not Applicable

Upper Flammable or Explosive Limit: Not Applicable

Lower Flammable or Explosive Limit: Not Applicable

Extinguishing Media:
Use Water

Fire Fighting Instructions:
None

TOP

SECTION 5 : Health Hazards

Applies to All Ingredients:

Route of Exposure:
INHALATION (During Grinding)
INGESTION (During Grinding)
SKIN (During Grinding)
EYE (During Grinding)

Potential Health Effects:

Eye Contact:
(During Grinding): Acute: Dust may irritate eyes.

Skin Contact:
(During Grinding): Acute: Some may experience skin irritation from dust.

Inhalation:
(During Grinding): Acute: Possible cough

Ingestion:
(During Grinding): Acute: No known adverse effects, but ingestion not recommended.

Chronic Eye Contact:a
(During Grinding): Dust may irritate eyes.

Chronic Skin Contact:
(During Grinding): Some may experience skin irritation from dust.

Chronic Inhalation:
(During Grinding): May affect breathing capacity.

Chronic Ingestion:

(During Grinding): No known adverse effects, but ingestion not recommended.

Other Potential Health Effects:

Risks (During Grinding): Grinding may create elevated sound levels which may affect hearing and dust which may aggravate preexisting respiratory conditions.

TOP

SECTION 6 : Emergency And First Aid Procedures

Eye Contact:

(During Grinding): Wash with large amounts of water. Obtain first aid and medical assistance, If needed.

Skin Contact:

(During Grinding): Wash affected areas with soap and water. Obtain medical assistance, if needed.

Inhalation:

(During Grinding): Remove to fresh air. Artificial respiration as needed. Obtain medical assistance, if needed.

Ingestion:

(During Grinding): Obtain medical assistance, if needed.

Other First Aid:

(During Grinding): Obtain medical assistance, if needed. Remove to fresh air.

TOP

SECTION 7 : Reactivity Data

Chemical Stability:

Stable

Conditions to Avoid:

No Applicable Information Found

Incompatibilities with Other Materials:

(Materials to Avoid): No Applicable Information Found

Hazardous Polymerization:

Will Not Occur

Hazardous Decomposition Products:

In use, dust and decomposing odors are generated. In most cases, the material removed from the workpiece will be significantly greater than the grinding wheel components. Coolants may produce other decomposition products.

TOP

SECTION 8 : Precautions For Safe Handling

Spill Cleanup Measures:

Normal cleanup procedures. Evaluate all product in accordance with ANSI B7.1.

Other Precautions:

No Applicable Information Found

Handling:

None

Normal Use:
Handling with adequate ventilation. See OSHA 29 CFR 1910.94 (ventilation) and 29 CFR 1910.1000 (air contaminants)

Storage:

None

Normal Storage and Handling:
See ANSI Standard B7.1.

Waste Disposal:

Standard landfill methods consistent with applicable federal, state, and local laws. Products containing flourides may leach a very slight amount in landfills.

TOP

SECTION 9 : Control Measures

Engineering Controls:

Measures to be taken during repair and maintenance of contaminated equipment that has been in contact with this material.

Ventilation System:

Mechanical (General): Recommended

Local Exhaust:

Recommended

Other Exhaust Information:

No Applicable Information Found

Hand Protection Description:

PROTECTIVE GLOVES: Recommended

Eye/Face Protection:

Recommended

Respiratory Protection:

(Specify Type): As needed. For approved dust respirators see OSHA 29CFR 1910.134

Other Protective:

As needed hearing protection see OSHA 29CFR 1910.95 (Hearing Protection)

Comments:

See Section 8 & 9

TOP

SECTION 10 : Other Information

Applies to all ingredients:

OSHA 29 CFR 1200:

* Materials are regulated by OSHA 29 CFR 1910.1200, Hazard Communication Standard

NFPA:

Fire Hazard: 0

Health: 1

Reactivity: 0

MSDS Revision Date:

11/11/03

MSDS Author:

Contact: Richard E. Lawson

Disclaimer:

FOR COMPANY USE:
The information and recommendations set forth herein are taken from sources believed to be accurate as of the date hereof; however, Metabo Corporation makes no warranty with respect to the information or the suitability of the recommendations, and assumes no liability to any user thereof.

HAZARD RATING:
Please rate consistent with NFPA Code

Abbreviations:
NAIF - No Applicable Information Found
N/A - Not Applicable

PURELL® Advanced Hand Sanitizer Refreshing Gel

SECTION 1. IDENTIFICATION

Product name : PURELL® Advanced Hand Sanitizer Refreshing Gel

Manufacturer or supplier's details

Company name of supplier : GOJO Industries, Inc.
Address : One GOJO Plaza, Suite 500
Akron, Ohio 44311
Telephone : 1 (330) 255-6000

Emergency telephone number : CHEMTREC 1-800-424-9300
CHEMTREC +1-703-527-3887: Outside USA & CANADA

Recommended use of the chemical and restrictions on use

Recommended use : Hand Sanitizer
Restrictions on use : This is a personal care or cosmetic product that is safe for consumers and other users under normal and reasonably foreseeable use. Cosmetics and consumer products, specifically defined by regulations around the world, are exempt from the requirement of an SDS for the consumer. While this material is not considered hazardous, this SDS contains valuable information critical to the safe handling and proper use of the product for industrial workplace conditions as well as unusual and unintended exposures such as large spills. This SDS should be retained and available for employees and other users of this product. For specific intended-use guidance, please refer to the information provided on the package or instruction sheet.

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Flammable liquids : Category 3

Eye irritation : Category 2A

GHS label elements

Hazard pictograms :

Signal word : Warning

Hazard statements : H226 Flammable liquid and vapour.
H319 Causes serious eye irritation.

Precautionary statements : **Prevention:**
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P280 Wear eye protection/ face protection.
Response:
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
Storage:
P403 + P235 Store in a well-ventilated place. Keep cool.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components

Chemical name	CAS-No.	Concentration (%)
Ethyl Alcohol	64-17-5	>= 60 - < 70
Isopropyl Alcohol	67-63-0	>= 1 - < 5

SECTION 4. FIRST AID MEASURES

General advice	:	In the case of accident or if you feel unwell, seek medical advice immediately. When symptoms persist or in all cases of doubt seek medical advice.
If inhaled	:	If inhaled, remove to fresh air. If symptoms persist, call a physician.
In case of skin contact	:	Wash with water and soap as a precaution. Get medical attention if irritation develops and persists.
In case of eye contact	:	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lens, if worn. Seek medical advice.
If swallowed	:	If swallowed, DO NOT induce vomiting. Rinse mouth with water. Obtain medical attention.
Most important symptoms and effects, both acute and delayed	:	Causes serious eye irritation.
Protection of first-aiders	:	First Aid responders should pay attention to self-protection and use the recommended protective clothing

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	:	Water spray Alcohol-resistant foam Dry chemical Carbon dioxide (CO2)
Unsuitable extinguishing media	:	High volume water jet
Specific hazards during firefighting	:	Do not use a solid water stream as it may scatter and spread fire. Cool closed containers exposed to fire with water spray. Flash back possible over considerable distance. May form explosive mixtures in air. Exposure to decomposition products may be a hazard to health. Carbon oxides
Hazardous combustion products	:	Carbon oxides
Specific extinguishing methods	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Use water spray to cool unopened containers.
Further information	:	Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Special protective equipment for firefighters	:	In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Material can create slippery conditions.
Environmental precautions	:	Discharge into the environment must be avoided. Prevent further leakage or spillage if safe to do so. Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained.
Methods and materials for containment and cleaning up	:	Non-sparking tools should be used. Soak up with inert absorbent material. Suppress (knock down) gases/vapours/mists with a water spray jet. Keep in suitable, closed containers for disposal. Clean contaminated floors and objects thoroughly while observing environmental regulations.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling : For personal protection see section 8.
Keep away from heat.
Use with local exhaust ventilation.
Avoid contact with eyes.

Conditions for safe storage : Take measures to prevent the build up of electrostatic charge.
Keep in properly labelled containers.
Keep container tightly closed in a dry and well-ventilated place.
Store in accordance with the particular national regulations.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Ethyl Alcohol	64-17-5	TWA	1,000 ppm 1,900 mg/m3	NIOSH REL
		TWA	1,000 ppm 1,900 mg/m3	OSHA Z-1
		STEL	1,000 ppm	ACGIH
Isopropyl Alcohol	67-63-0	TWA	200 ppm	ACGIH
		STEL	400 ppm	ACGIH
		TWA	400 ppm 980 mg/m3	NIOSH REL
		ST	500 ppm 1,225 mg/m3	NIOSH REL
		TWA	400 ppm 980 mg/m3	OSHA Z-1

Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
Isopropyl Alcohol	67-63-0	Acetone	Urine	End of shift at end of workweek	40 mg/l	ACGIH BEI

Personal protective equipment

Respiratory protection : No personal respiratory protective equipment normally required.

Hand protection
Remarks : No special protective equipment required.

Eye protection : Wear face-shield and protective suit for abnormal processing problems.

Skin and body protection : No special measures necessary provided product is used correctly.

Protective measures : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.
Ensure that eye flushing systems and safety showers are located close to the working place.

Hygiene measures	:	Handle in accordance with good industrial hygiene and safety practice. Avoid contact with eyes.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Colour	:	clear, colourless, light yellow
Odour	:	citrus
Odour Threshold	:	No data available
pH	:	6.5 - 8.5
Melting point/freezing point	:	No data available
Boiling point/boiling range	:	70.00 °C
Flash point	:	25.00 °C
Evaporation rate	:	No data available
Flammability (solid, gas)	:	Not applicable
Flammability (liquids)	:	
Upper explosion limit	:	No data available
Lower explosion limit	:	No data available
Vapour pressure	:	No data available
Relative vapour density	:	No data available
Density	:	0.8743 g/cm3
Solubility(ies)		
Water solubility	:	soluble
Partition coefficient: n-octanol/water	:	Not applicable
Auto-ignition temperature	:	not determined
Thermal decomposition	:	The substance or mixture is not classified self-reactive.
Viscosity		
Viscosity, kinematic	:	3500 - 23000 mm2/s (20 °C)
Explosive properties	:	Not explosive
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	Not classified as a reactivity hazard.
Chemical stability	:	Stable under normal conditions.

Possibility of hazardous reactions	:	Vapours may form explosive mixture with air.
Conditions to avoid	:	Heat, flames and sparks.
Incompatible materials	:	Oxidizing agents
Hazardous decomposition products	:	No hazardous decomposition products are known.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure
Inhalation
Skin contact
Eye contact

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity	:	Acute toxicity estimate : > 5,000 mg/kg Method: Calculation method

Components:

Ethyl Alcohol:

Acute oral toxicity	:	LD50 (Rat): > 5,000 mg/kg
Acute inhalation toxicity	:	LC50 (Rat): 124.7 mg/l Exposure time: 4 h Test atmosphere: vapour

Isopropyl Alcohol:

Acute oral toxicity	:	LD50 (Rat): > 5,000 mg/kg
Acute inhalation toxicity	:	LC50 (Rat): 72.6 mg/l Exposure time: 4 h Test atmosphere: vapour
Acute dermal toxicity	:	LD50 (Rat): > 5,000 mg/kg

Skin corrosion/irritation

Not classified based on available information.

Components:

Ethyl Alcohol:
Species: Rabbit
Method: OECD Test Guideline 404
Result: No skin irritation

Isopropyl Alcohol:
Species: Rabbit
Result: No skin irritation

Serious eye damage/eye irritation

Causes serious eye irritation.

Components:

Ethyl Alcohol:
Species: Rabbit
Result: Irritation to eyes, reversing within 21 days
Method: OECD Test Guideline 405

Isopropyl Alcohol:
Species: Rabbit
Result: Irritation to eyes, reversing within 21 days

Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information.
Respiratory sensitisation: Not classified based on available information.

Components:

Ethyl Alcohol:
Test Type: Local lymph node assay (LLNA)
Exposure routes: Skin contact
Species: Mouse
Result: negative

Isopropyl Alcohol:
Test Type: Buehler Test
Exposure routes: Skin contact
Species: Guinea pig
Method: OECD Test Guideline 406
Result: negative

Germ cell mutagenicity

Not classified based on available information.

Components:

Ethyl Alcohol:

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test
Result: negative

Genotoxicity in vivo : Test Type: Rodent dominant lethal test (germ cell) (in vivo)
Test species: Mouse
Application Route: Ingestion
Result: negative

Isopropyl Alcohol:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
Test species: Mouse
Application Route: Intraperitoneal injection
Result: negative

Carcinogenicity

Not classified based on available information.

Components:

Isopropyl Alcohol:
Species: Rat
Application Route: inhalation (vapour)
Exposure time: 104 weeks
Method: OECD Test Guideline 451
Result: negative

IARC	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
NTP	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Not classified based on available information.

Components:

Ethyl Alcohol:

Effects on fertility	:	Test Type: Two-generation reproduction toxicity study Species: Mouse Application Route: Ingestion Method: OECD Test Guideline 416 Result: negative

Isopropyl Alcohol:

Effects on fertility	:	Test Type: Two-generation reproduction toxicity study Species: Rat Application Route: Ingestion Result: negative
Effects on foetal development	:	Test Type: Embryo-foetal development Species: Rat Application Route: Ingestion Result: negative

STOT - single exposure

Not classified based on available information.

Components:

Isopropyl Alcohol:
Assessment: May cause drowsiness or dizziness.

STOT - repeated exposure

Not classified based on available information.

Repeated dose toxicity

Components:

Ethyl Alcohol:
Species: Rat
NOAEL: 2,400 mg/kg
Application Route: Ingestion
Exposure time: 2 y

Isopropyl Alcohol:
Species: Rat
NOAEL: 5000 ppm
Application Route: inhalation (vapour)
Exposure time: 104 w
Method: OECD Test Guideline 413

Aspiration toxicity

Not classified based on available information.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

Ethyl Alcohol:

Toxicity to fish	:	LC50 (Pimephales promelas (fathead minnow)): > 1,000 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 1,000 mg/l Exposure time: 48 h
Toxicity to algae	:	EC50 (Chlorella vulgaris (Fresh water algae)): 275 mg/l Exposure time: 72 h Method: OECD Test Guideline 201
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC (Daphnia magna (Water flea)): 9.6 mg/l Exposure time: 9 d
Toxicity to bacteria	:	EC50 (Photobacterium phosphoreum): 32.1 mg/l Exposure time: 0.25 h

Isopropyl Alcohol:

Toxicity to fish	:	LC50 (Pimephales promelas (fathead minnow)): 10,000 mg/l Exposure time: 96 h
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): > 10,000 mg/l Exposure time: 24 h
Toxicity to bacteria	:	EC50 (Pseudomonas putida): > 1,050 mg/l Exposure time: 16 h

Persistence and degradability

Components:

Ethyl Alcohol:

Biodegradability	:	Result: Readily biodegradable. Biodegradation: 84 %

Exposure time: 20 d

Isopropyl Alcohol:
Biodegradability : Result: rapidly degradable

Bioaccumulative potential

Components:

Ethyl Alcohol:
Partition coefficient: n-octanol/water : log Pow: -0.35

Isopropyl Alcohol:
Partition coefficient: n-octanol/water : log Pow: 0.05

Mobility in soil

No data available

Other adverse effects

No data available

Product:

Regulation	40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks	This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Dispose of in accordance with local regulations.
Contaminated packaging : Dispose of as unused product.
Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14. TRANSPORT INFORMATION

International Regulation

IATA-DGR

UN/ID No.	: UN 1987
Proper shipping name	: Alcohols, n.o.s. (Ethanol, Propan-2-ol)
Class	: 3
Packing group	: III
Packing instruction (cargo aircraft)	: 366
Packing instruction (passenger aircraft)	: 355

IMDG-Code

UN number : UN 1987

Proper shipping name	:	ALCOHOLS, N.O.S. (Ethanol, Propan-2-ol)
Class	:	3
Packing group	:	III
Labels	:	3
EmS Code	:	F-E, S-D
Marine pollutant	:	no

National Regulations

49 CFR

UN/ID/NA number	:	UN 1987
Proper shipping name	:	Alcohols, n.o.s.
Class	:	3
Packing group	:	III
ERG Code	:	127
Marine pollutant	:	no

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

SARA 311/312 Hazards : Fire Hazard
Acute Health Hazard

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

Isopropyl Alcohol	67-63-0	3.4086 %

Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).
The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489):

Ethyl Alcohol	64-17-5	65.2821 %
Isopropyl Alcohol	67-63-0	3.4086 %

This product does not contain any VOC exemptions listed under the U.S. Clean Air Act Section 450.

California Prop 65 This product does not require a warning label under California Proposition 65.

The components of this product are reported in the following inventories:

TSCA	:	On TSCA Inventory
CH INV	:	On the inventory, or in compliance with the inventory
AICS	:	On the inventory, or in compliance with the inventory

DSL	:	On the inventory, or in compliance with the inventory
ENCS	:	On the inventory, or in compliance with the inventory
ISHL	:	On the inventory, or in compliance with the inventory
KECI	:	On the inventory, or in compliance with the inventory
PICCS	:	On the inventory, or in compliance with the inventory
IECSC	:	On the inventory, or in compliance with the inventory
NZIoC	:	On the inventory, or in compliance with the inventory

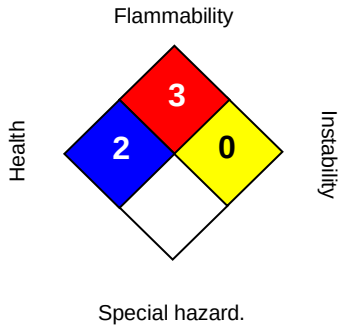
Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)

SECTION 16. OTHER INFORMATION

Further information

NFPA:



HMIS III:

HEALTH	2
FLAMMABILITY	3
PHYSICAL HAZARD	0

0 = not significant, 1 =Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

Revision Date : 08/02/2020

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

SAFETY DATA SHEET

Section 1 – Product & Company Identification

Product Name:	RIDGID Dark Thread Cutting Oil (Canada)
Product Catalog No.:	11471, 11491, 41590, 41600, 41610, 70830
Recommended Use:	Thread Cutting
Restrictions on Use:	Industrial use only

Company Information:

North America	Canada
Ridge Tool Company 400 Clark Street Elyria, Ohio 44035-6001 1-800-519-3456 (8:00 am – 5:00 pm EST, M-F) Emergency Telephone call 9-1-1 or local emergency number www.RIDGID.com	Emerson Electric Canada Limited 66 Leek Crescent , Richmond Hill, Ontario L4B 1H1 905-762-1010

Operating Standard:	6-104
Revision:	K
EC Number	002150
Issue Date:	April 23, 2023
Last Revision Date	October 26, 2020

Product Name : RIDGID Dark Thread Cutting Oil (Canada)

Section 2 – Hazards Identification

Hazard Classification Not classified as hazardous under GHS

Label Elements

Hazard Symbol: No symbol
Signal Word: No signal word
Hazard Statement: Not applicable
Precautionary Statements Not applicable

Other hazards which do not result in GHS classification: None

Section 3 – Composition / Information On Ingredients

Mixtures:

Chemical Identity	Common name and synonyms	CAS number	Content in percent (%)*
Distillates (petroleum), hydrotreated heavy paraffinic	Mineral oil,	64742-54-7	30 - 60%
Paraffin oils (petroleum)	Paraffin oils (petroleum),	64742-70-7	30 - 60%

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Composition Comments: This product does not contain silicone or chlorinated additives.

Section 4 – First Aid Measures

Ingestion: Rinse mouth thoroughly. Call a POISON CENTER/doctor if you feel unwell. Do NOT induce vomiting.

Inhalation: Move to fresh air. Call a POISON CENTER/doctor if you feel unwell.

Skin Contact: Remove contaminated clothing and shoes. Wash contact areas with soap and water. If skin irritation occurs: Get medical advice/attention.

Eye contact: Flush thoroughly with water. If irritation occurs, get medical assistance. Continue to rinse for at least 15 minutes.

Most important symptoms/effects, acute and delayed

Symptoms: No data available.

Hazard: No data available.

Indication of immediate medical attention and special treatment needed

Treatment: Get medical attention if symptoms occur.

Section 5 – Fire Fighting Measures

General Fire Hazards: No unusual fire or explosion hazards noted.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Water spray, fog, CO2, dry chemical, or regular foam. Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical: Heat may cause the containers to explode. During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for fire-fighters

Special fire-fighting procedures:	No data available.
Special protective equipment for fire-fighters:	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

Section 6 – Accidental Release Measures

Personal precautions, protective equipment and emergency procedures:	See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away. Ensure adequate ventilation.
Methods and material for containment and cleaning up:	Absorb with sand or other inert absorbent. Stop the flow of material, if this is without risk.
Environmental Precautions:	Avoid release to the environment. Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.

Section 7 – Handling And Storage

Precautions for safe handling:	End-users should follow industry best practices for handling and using this product. Guidance may be found using the current version of ASTM Standard E1497-05: Standard Practice for Selection and Safe Use of Water-Miscible and Straight Oil Metal Removal Fluids Observe good industrial hygiene practices. Wear appropriate personal protective equipment. Do not expose to intense heat as product may expand and pressurize container.

Conditions for safe storage, including any incompatibilities: Shelf Life: 720 Days Store in original tightly closed container. Avoid contact with oxidizing agents. Store away from incompatible materials.

Section 8 – Exposure Controls / Personal Protection

Control Parameters

Occupational Exposure Limits

Chemical name	Type	Exposure Limit Values	Source
Distillates (petroleum), hydrotreated heavy paraffinic - Mist.	TWA	1 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (05 2013)
Distillates (petroleum), hydrotreated heavy paraffinic - Inhalable fraction.	TWA	5 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (06 2015)
Distillates (petroleum), hydrotreated heavy paraffinic - Mist.	TWA	5 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)
	STEL	10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)
Paraffin oils (petroleum) - Mist.	TWA	1 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (05 2013)
	TWA	0.2 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (05 2013)
Paraffin oils (petroleum) - Inhalable fraction.	TWA	5 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (06 2015)
Paraffin oils (petroleum) - Mist.	STEL	10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting

			occupational health and safety), as amended (09 2017)
	TWA	5 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)
Paraffin oils (petroleum) - Inhalable fraction.	TWA	5 mg/m3	US. ACGIH Threshold Limit Values, as amended (03 2014)

Appropriate Engineering Controls No data available.

Individual protection measures, such as personal protective equipment

General information: Use personal protective equipment as required.

Eye/face protection: Wear safety glasses with side shields (or goggles).

Skin Protection No data available.

Hand Protection: No data available.

Other: Wear protective clothing appropriate for the risk of exposure. Be aware of other hazards such as rotating parts. Contact health and safety professional or manufacturer for specific information. Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.

Respiratory Protection: In case of inadequate ventilation use suitable respirator. Seek advice from supervisor on the company's respiratory protection standards.

Hygiene measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing to remove contaminants. Discard contaminated footwear that cannot be cleaned.

Section 9 – Physical And Chemical Properties

Appearance:	
Physical state:	liquid
Form:	No data available
Color:	Black
Odor:	Mild petroleum/solvent
Odor threshold:	No data available
pH:	No data available
Melting point/freezing point:	No data available
Initial boiling point and boiling range:	No data available
Flash Point:	196.11 °C (385.00 °F)
Evaporation rate:	No data available
Flammability (solid, gas):	No data available
Upper/lower limit on flammability or explosive limits:	
Flammability limit - upper (%):	No data available
Flammability limit - lower (%):	No data available
Explosive limit - upper:	No data available
Explosive limit - lower:	No data available
Vapor pressure:	No data available
Vapor density:	No data available
Density:	No data available
Relative density:	0.878
Solubility(ies):	
Solubility in water:	Insoluble
Solubility (other):	No data available
Partition coefficient (n-octanol/water):	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity:	42.5 mm2/s (40 °C, Measured)
Other information :	
VOC:	1.99 % (Method 24) 1.3 g/l (ASTM E 1868-10)

Section 10 – Stability And Reactivity

Reactivity:	Not reactive during normal use.
Chemical Stability:	Material is stable under normal conditions.
Possibility of hazardous reactions:	None under normal conditions.
Conditions to avoid:	Avoid heat or contamination.
Incompatible Materials:	No data available.
Hazardous Decomposition Products:	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

Section 11 – Toxicological Information

Information on likely routes of exposure

Inhalation:	Inhalation is the primary route of exposure. In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.
Skin Contact:	Prolonged skin contact may cause redness and irritation.
Eye contact:	Eye contact is possible and should be avoided.
Ingestion:	May be ingested by accident. Ingestion may cause irritation and malaise.

Symptoms related to the physical, chemical and toxicological characteristics

Inhalation:	No data available.
Skin Contact:	No data available.
Eye contact:	No data available.

Product Name : RIDGID Dark Thread Cutting Oil (Canada)

Ingestion: No data available.

Information on toxicological effects

Acute toxicity (list all possible routes of exposure)

Oral Product: ATEmix (): 2000 - 5000 mg/kg

Dermal Product: ATEmix (): 2000 - 5000 mg/kg

Inhalation Product: No data available.

Delayed and immediate effects, including chronic effects from short- and long-term exposure Product:: No data available.

Skin Corrosion/Irritation Product: No data available.

Serious Eye Damage/Eye Irritation Product: No data available.

Respiratory or Skin Sensitization Product: No data available.

Carcinogenicity Product: No data available.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:
No carcinogenic components identified

US. National Toxicology Program (NTP) Report on Carcinogens:
No carcinogenic components identified

ACGIH Carcinogen List:
No carcinogenic components identified

Germ Cell Mutagenicity:

In vitro Product:	No data available.
In vivo Product:	No data available.
Reproductive toxicity Product:	No data available.
Specific Target Organ Toxicity - Single Exposure Product:	No data available.
Specific Target Organ Toxicity - Repeated Exposure Product:	No data available.
Aspiration Hazard Product:	No data available.
Other effects:	No data available.

Section 12 – Ecological Information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish Product:	No data available.
Aquatic Invertebrates Product:	No data available.

Chronic hazards to the aquatic environment:

Fish Product:	No data available.
Aquatic	No data available.

Invertebrates Product:	
Toxicity to Aquatic Plants Product:	No data available.

Persistence and Degradability

Biodegradation Product:	No data available.
BOD/COD Ratio Product:	No data available.

Bioaccumulative potential:

Bioconcentration Factor (BCF) Product:	No data available.
Partition Coefficient n-octanol / water (log Kow) Product:	No data available.
Mobility in soil:	No data available.
Other adverse effects:	No data available.

Section 13 – Disposal Consideration

Disposal instructions:	Discharge, treatment, or disposal may be subject to national, state, or local laws. Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal. It is the responsibility of the product user or owner to determine at the time of disposal, which waste regulations must be applied.
Contaminated Packaging:	Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14 – Transportation Information

DOT	Not regulated.
IMDG	Not regulated.
IATA	Not regulated.

Section 15 – Regulatory Information

Canada Federal Regulations

List of Toxic Substances (CEPA, Schedule 1)	Not Regulated
Export Control List (CEPA 1999, Schedule 3)	Not Regulated

National Pollutant Release Inventory (NPRI)

Canada. National Pollutant Release Inventory (NPRI) Substances, Part 5, VOCs with Additional Reporting Requirements

NPRI PT5	None present or none present in regulated quantities.

Canada. National Pollutant Release Inventory (NPRI) (Schedule 1, Parts 1-4)

NPRI	Not Regulated
Greenhouse Gases	Not Regulated

Section 16 – Other Information

Prepared by:..... Ridge Tool Company

OPSTD 6-104

Revision ..... K

EC Number 002150

Issue Date: ..... April 23, 2023

Last Revision Date: ..... October 26, 2020

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FICHE SANTÉ/SÉCURITÉ

1 – Identification du produit et du fournisseur

Produit:	RIDGID Dark Thread Cutting Oil (Canada)
Réf. catalogue:	11471, 11491, 41590, 41600, 41610, 70830
Emploi recommandé:	Filetage mécanique
Restrictions d'utilisation:	Usage industriel seulement

Fournisseur:

North America	Canada
Ridge Tool Company 400 Clark Street Elyria, Ohio 44035-6001 1-800-519-3456 (Etats-Unis) (du lundi au vendredi de 8h à 17h EST) Téléphone d'urgence: composer le 9-1-1 ou appeler les services d'urgences appropriés www.RIDGID.com	Emerson Electric Canada Limited 66 Leek Crescent , Richmond Hill, Ontario L4B 1H1 905-762-1010

Norme De Fonctionnement:	6-104
Révision:	K
ECN:	002150
Date de publication:	23 avril 2023
Dernière revision:	26 octobre 2020

2 – Identification des risques

Classe de Danger Non classé comme dangereux selon le SGH

Éléments d'étiquetage :

Symbole de Danger: Aucun symbole

Mention d'Avertissement: Aucun mot indicateur.

Mention de Danger: Non applicable

Conseils de Prudence Non applicable

Autres dangers ne donnant pas lieu à classement selon le SGH: Aucun(e).

3 – Composition du produit et renseignements sur ses ingrédients

Mélanges:

Identité Chimique	Nom commun et synonymes	Numéro CAS	Teneur en pourcentage (%)*
distillats paraffiniques lourds (pétrole), hydrotraités	huile minérale,	64742-54-7	30 - 60%
huiles de paraffine lourdes (pétrole)	huiles de paraffine lourdes (pétrole),	64742-70-7	30 - 60%

* Toutes les concentrations sont exprimées en pourcentage pondéral sauf si le composant est un gaz. Les concentrations de gaz sont exprimées en pourcentage volumique.

Remarques sur la Composition: Ce produit ne contient pas de silicone ou d'additifs chlorés.

4 – Premiers soins

Ingestion: Rincer soigneusement la bouche. Appeler un CENTRE ANTIPOISON/un médecin en cas de malaise. NE PAS faire vomir.

Inhalation: Transporter à l'air frais. Appeler un CENTRE ANTIPOISON/un médecin en cas de malaise.

Contact avec la Peau: Enlever les vêtements et les chaussures contaminés. Laver les zones de contact à l'eau et au savon. En cas d'irritation cutanée: consulter un médecin.

Contact oculaire: Rincer avec soin à l'eau. En cas d'irritation, consulter un médecin. Continuer à rincer pendant au moins 15 minutes.

Symptômes/effets les plus importants, aigus et différés

Symptômes: Aucune information disponible.

Dangers: Aucune information disponible.

Indication d'un besoin médical immédiat et traitement spécial requis

Traitement: Consulter un médecin en cas de symptômes.

5 – Lutte contre les incendies

Dangers d'Incendie Généraux: Aucun risque exceptionnel d'incendie et d'explosion.

Moyens d'extinction appropriés (et inappropriés)

Moyens d'extinction appropriés: Eau pulvérisée, brouillard, CO2, agent chimique sec ou mousse standard. Choisir le moyen d'extinction de l'incendie en tenant compte d'autres produits chimiques éventuels.

Moyens d'extinction Ne pas lutter contre l'incendie au jet d'eau pour ne pas propager les flammes.

inappropriés:

Dangers spécifiques dus au produit chimique:	La chaleur peut provoquer l'explosion des récipients. En cas d'incendie, des gaz dangereux pour la santé peuvent se former.

Équipement de protection spécial et précautions pour les pompiers

Procédures spéciales de lutte contre l'incendie:	Aucune information disponible.
Équipement de protection spécial pour le personnel préposé à la lutte contre le feu:	Les pompiers doivent porter un équipement de protection standard, notamment vêtement ignifuge, casque à masque facial, gants, bottes en caoutchouc et, dans les espaces clos, un appareil respiratoire autonome.

6 – Lutte contre les déversements accidentels

Précautions individuelles, équipement de protection et procédures d'urgence:	Voir l'équipement de protection individuelle à la Section 8. Ne pas toucher les récipients endommagés ou le produit déversé à moins de porter les vêtements de protection appropriés. Maintenir à distance le personnel non autorisé. Assurer une ventilation adéquate.
Méthodes et matériel de confinement et de nettoyage:	Absorber le produit avec du sable ou un autre absorbant inerte. Arrêter le débit de matière, si ceci est sans risque.
Précautions pour la protection de l'environnement:	Éviter le rejet dans l'environnement. Ne pas contaminer les sources d'eau ou les égouts. Endiguer la fuite ou le déversement si cela peut être fait sans danger.

7 – Manipulation et stockage

Précautions à prendre pour une manipulation sans danger:

Les utilisateurs finaux devraient respecter les meilleures pratiques de l'industrie lors de la manipulation et l'utilisation de ce produit.

Les conseils peuvent être trouvés en utilisant la version actuelle de ASTM Standard E1497-05: Standard Practice for Selection and Safe Use of Water-Miscible and Straight Oil Metal Removal Fluids

Se conformer aux bonnes pratiques d'hygiène industrielle. Porter un équipement de protection personnelle approprié. N'exposez pas à la chaleur intense comme le produit peut développer et pressuriser le récipient.

Conditions d'un stockage sûr, y compris les éventuelles incompatibilités:

Durée de conservation: 720 jours Conserver dans le récipient d'origine hermétiquement fermé. Éviter tout contact avec des agents comburants. Conserver à l'écart des matières incompatibles.

8 – Risques d'exposition et protection individuelle

Paramètres de contrôle

Valeurs Limites d'Exposition Professionnelle

Désignation chimique	Type	Valeurs Limites d'Exposition	Source
distillats paraffiniques lourds (pétrole), hydrotraités - Brouillard	TWA	1 mg/m3	Canada. Colombie-Britannique VLE's. (Valuers limite d'exposition pour les substances chimiques, Réglementation sur la santé et sécurité au travail 296/97, et ses modifications. (05 2013)
distillats paraffiniques lourds (pétrole), hydrotraités - Fraction inhalable.	TWA	5 mg/m3	Canada. LEMT de l'Ontario. (Contrôle de l'exposition aux agents biologiques ou chimiques), dans sa version modifiée (06 2015)
distillats paraffiniques lourds (pétrole), hydrotraités - Brouillard	TWA	5 mg/m3	Canada. LEMT du Québec, (Ministère du Travail. Règlement sur la qualité du milieu de travail), dans leur version

			modifiée (09 2017)
	STEL	10 mg/m3	Canada. LEMT du Québec, (Ministère du Travail. Règlement sur la qualité du milieu de travail), dans leur version modifiée (09 2017)
huiles de paraffine lourdes (pétrole) - Brouillard	TWA	1 mg/m3	Canada. Colombie-Britannique VLE's. (Valuers limite d'exposition pour les substances chimiques, Réglementation sur la santé et sécurité au travail 296/97, et ses modifications. (05 2013)
	TWA	0.2 mg/m3	Canada. Colombie-Britannique VLE's. (Valuers limite d'exposition pour les substances chimiques, Réglementation sur la santé et sécurité au travail 296/97, et ses modifications. (05 2013)
huiles de paraffine lourdes (pétrole) - Fraction inhalable.	TWA	5 mg/m3	Canada. LEMT de l'Ontario. (Contrôle de l'exposition aux agents biologiques ou chimiques), dans sa version modifiée (06 2015)
huiles de paraffine lourdes (pétrole) - Brouillard	STEL	10 mg/m3	Canada. LEMT du Québec, (Ministère du Travail. Règlement sur la qualité du milieu de travail), dans leur version modifiée (09 2017)
	TWA	5 mg/m3	Canada. LEMT du Québec, (Ministère du Travail. Règlement sur la qualité du milieu de travail), dans leur version modifiée (09 2017)
huiles de paraffine lourdes (pétrole) - Fraction inhalable.	TWA	5 mg/m3	États-Unis. ACGIH, valeurs limites d'exposition, dans leur version modifiée (03 2014)

Contrôles Techniques Appropriés Aucune information disponible.

Mesures de protection individuelle, telles que les équipements de protection individuelle

Informations générales: Utiliser l'équipement de protection individuel requis.

Protection des yeux/du visage: Porter des lunettes de sécurité à écrans latéraux ou des lunettes étanches.

Protection de la Peau

Protection des Mains: Aucune information disponible.

Autres: Porter des vêtements de protection appropriés au risque d'exposition. Soyez conscient des autres dangers tels que

	les pièces en rotation. Contacter un professionnel de la santé et de la sécurité ou un fabricant pour obtenir des informations spécifiques. Porter des gants, des chaussures et des vêtements de protection résistant aux produits chimiques, et correspondant au risque d'exposition. Contacter un professionnel de l'hygiène et sécurité ou le fabricant pour tout détail.
Protection Respiratoire:	En cas de ventilation insuffisante, porter un appareil respiratoire approprié. Demander l'avis du superviseur sur les normes de protection respiratoire de la société.
Mesures d'hygiène:	Toujours adopter de bonnes pratiques d'hygiène personnelle, telles que lavage après manipulation de la substance et avant de manger, de boire ou de fumer. Laver régulièrement la tenue de travail pour éliminer les contaminants. Mettre au rebut les chaussures qui ne peuvent pas être lavées.

9 – Caractéristiques physiques et chimiques

Aspect

État:	liquide
Forme:	Aucune information disponible.
Couleur:	Noir
Odeur:	Légère, Pétrole/solvant
Seuil de perception de l'odeur:	Aucune information disponible.
pH:	Aucune information disponible.
Point de fusion/point de congélation:	Aucune information disponible.
Température d'ébullition initiale et intervalle d'ébullition:	Aucune information disponible.
Point d'éclair:	196.11 °C (385.00 °F)
Taux d'évaporation:	Aucune information disponible.
Inflammabilité (solide, gaz):	Aucune information disponible.
Limites supérieures/inférieures d'inflammabilité ou d'explosivité	
Limites d'inflammabilité - supérieure (%):	Aucune information disponible.
Limites d'inflammabilité - inférieure (%):	Aucune information disponible.
Limites d'explosivité - supérieure:	Aucune information disponible.
Limites d'explosivité - inférieure:	Aucune information disponible.
Pression de vapeur:	Aucune information disponible.

Densité de vapeur:	Aucune information disponible.
Densité :	Aucune information disponible.
Densité relative:	0.878
Solubilités	
Solubilité dans l'eau:	Insoluble
Solubilité (autre):	Aucune information disponible.
Coefficient de partition (n-octanol/eau):	Aucune information disponible.
Température d'auto-inflammation:	Aucune information disponible.
Température de décomposition:	Aucune information disponible.
Viscosité:	42.5 mm2/s (40 °C, Mesurée)
Autres informations	
VOC:	1.3 % (Method 24) 1.99 g/l (ASTM E 1868-10)

10 – Stabilité et réactivité

Réactivité:	Non réactif pendant l'utilisation normale.
Stabilité chimique:	Ce produit est stable dans des conditions normales.
Possibilité de réactions dangereuses:	Aucun(e)(s) dans les conditions normales.
Conditions à éviter:	Éviter tout chauffage ou contamination.
Matières incompatibles:	Aucune information disponible.
Produits de décomposition dangereux:	La décomposition thermique ou la combustion peut libérer des oxydes de carbone et d'autres gaz ou vapeurs toxiques.

11 – Données toxicologiques

Informations sur les voies d'exposition probables

Inhalation:	L'inhalation est la principale voie d'exposition. À concentration élevée, les vapeurs, émanations ou brouillards peuvent être irritants pour le nez, la gorge et les muqueuses.
Contact avec la Peau:	Le contact prolongé avec la peau peut entraîner des rougeurs et de l'irritation.
Contact oculaire:	Le contact oculaire est possible ; il doit être évité.
Ingestion:	Peut être ingéré par accident. L'ingestion peut provoquer irritation et malaises.

Symptômes liés aux caractéristiques physiques, chimiques et toxicologiques

Inhalation:	Aucune information disponible.
Contact avec la Peau:	Aucune information disponible.
Contact oculaire:	Aucune information disponible.
Ingestion:	Aucune information disponible.

Informations sur les effets toxicologiques

Toxicité aiguë (répertorier toutes les voies d'exposition possibles)

Ingestion Produit:	ETAmél (): 2000 - 5000 mg/kg
Contact avec la peau Produit:	ETAmél (): 2000 - 5000 mg/kg
Inhalation Produit:	Aucune information disponible.

Produit: RIDGID Dark Thread Cutting Oil (Canada)

Effets différés et immédiats, et effets chroniques d'une exposition de courte et de longue durée Produit:	Aucune information disponible.
Corrosion ou Irritation de la Peau Produit:	Aucune information disponible.
Blessure ou Irritation Grave des Yeux Produit:	Aucune information disponible.
Sensibilisation Respiratoire ou Cutanée Produit:	Aucune information disponible.
Cancérogénicité Produit:	Aucune information disponible.

Monographies du CIRC sur l'évaluation des risques de cancérogénicité pour l'homme:

Aucun composant cancérigène identifié

États-Unis. Rapport du NTP (National Toxicilogy Program) sur les cancérogènes :

Aucun composant cancérigène identifié

Liste des cancérogènes de l'ACGIH::

Aucun composant cancérigène identifié

Mutagénicité des Cellules Germinales

In vitro Produit:	Aucune information disponible.
In vivo Produit:	Aucune information disponible.
Toxicité pour la reproduction Produit:	Aucune information disponible.
Toxicité Spécifique au Niveau de l'Organe Cible- Exposition	Aucune information disponible.

Produit: RIDGID Dark Thread Cutting Oil (Canada)

Unique Produit:

Toxicité Spécifique au Niveau de l'Organe Cible- Expositions répétées Produit:	Aucune information disponible.
Risque d'AspirationnProduit:	Aucune information disponible.
Autres effets:	Aucune information disponible.

12 – Données écologiques

Écotoxicité:

Risques aigus pour l'environnement aquatique:

Poisson Produit:	Aucune information disponible.
Invertébrés Aquatiques Produit:	Aucune information disponible.

Risques chroniques pour l'environnement aquatique:

Poisson Produit:	Aucune information disponible.
Invertébrés Aquatiques Produit:	Aucune information disponible.
Toxicité pour les plantes aquatiques Produit:	Aucune information disponible.

Persistance et dégradabilité

Biodégradation Produit:	Aucune information disponible.

Rapport DBO/DCO Produit:	Aucune information disponible.

Potentiel de bioaccumulation

Facteur de Bioconcentration (BCF) Produit:	Aucune information disponible.

Coefficient de Partage n-octanol/eau (log Kow) Produit:	Aucune information disponible.
Mobilité dans le sol:	Aucune information disponible.
Autres effets néfastes:	Aucune information disponible.

13 – Recyclage

Instructions pour l'élimination:	Le rejet, le traitement et l'élimination peuvent être soumis à des lois nationales, régionales ou locales. Éliminer les déchets dans une installation de traitement et d'élimination des déchets appropriée conformément aux lois et aux réglementations en vigueur et en fonction des caractéristiques du produit au moment de l'élimination. C'est la responsabilité de l'utilisateur de produit ou du propriétaire pour déterminer au moment de la disposition, qui se perdent les règlements doivent être appliqués.
Emballages Contaminés:	Les conteneurs vides doivent être acheminés vers un site agréé pour le traitement des déchets à des fins de recyclage ou d'élimination.

14 – Transport

TDG	Non réglementé.
IMDG	Non réglementé.
IATA	Non réglementé.

15 – Réglementation

Réglementations fédérales du Canada

Liste des substances toxiques (LCPE, Annexe 1)	Non réglementé
Liste des substances d'exportation contrôlée (LCPE 1999, Annexe 3)	Non réglementé

Inventaire national des rejets de polluants (INRP)

Canada Substances de l'Inventaire national des rejets de polluants (INRP), partie 5, COV's faisant l'objet d'une déclaration plus détaillée

NPRI PT5	Aucun présent ou aucun présent dans des quantités réglementées.

Canada. Loi canadienne sur la protection de l'environnement (CEPA). Inventaire national des rejets de polluants (INRP) (Gaz.Can. Partie I, 135:12, 940)

NPRI	Non réglementé
Gaz à effet de serre	Non réglementé

16 – Renseignements divers

Rédaction ..... Ridge Tool Company

Norme De Fonctionnement 6-104

Révision ..... K

ECN..... 002150

Date de publication..... 23 avril 2023

Dernière révision ..... 26 octobre 2020

Quoi que la société Ridge Tool estime que les affirmations, informations techniques et recommandations ci-présentes sont dignes de confiance, celles-ci ne sont données qu'à titre indicatif, sans aucune garantie expresse ou implicite, et ne sauraient engager la responsabilité civile de la société en cas de pertes, dommages et intérêts, voire frais directs ou indirects relevant de leur application.

MATERIAL SAFETY DATA SHEET

Date Issued: 08/16/2010
MSDS No: RPMOTOROILINDLOGO-041808

Royal Purple® Motor Oil

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Royal Purple® Motor Oil
GENERAL USE: Lubricant and corrosion inhibitor
CHEMICAL FAMILY: Synthetic based lubricating oil

MANUFACTURER

Royal Purple, Inc.
One Royal Purple Lane
Porter, TX 77365
Product Stewardship: 281-354-8600

DISTRIBUTOR

Royal Purple Oils Australia Pty Ltd
41/2 Richard Close
North Rocks
Sydney, NSW 2151
(612) 9683 5078 (0417 438279, Cell Phone)
Emergency Contact: Eian Jones

24 HR. EMERGENCY TELEPHONE NUMBERS

USA : 800-424-9300
International : 703-527-3887(collect calls accepted)

2. HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS

EYES: May cause irritation.

SKIN: May irritate the skin after prolonged periods of contact.

INGESTION: May cause diarrhea.

INHALATION: Oil mist may line breathing passages with oil making breathing difficult.

3. COMPOSITION / INFORMATION ON INGREDIENTS

- Base Oil (synthetic) — Synthetic additives with iso-paraffinic diluents.
- The precise composition of this oil is proprietary. A more complete disclosure will be provided to a physician or nurse in the event of a medical emergency.
- All components of this product are listed on the U.S. TSCA inventory.
- This product contains no hazardous substances within the definition of OSHA Regulation 29 CFR 1910.1200.
- Royal Purple certifies that this product has been evaluated for RCRA characteristics and does not meet the criteria of a hazardous waste if discarded in its purchased form.

4. FIRST AID MEASURES

EYES: Flush with water until all residual material is gone. If irritation persists, seek medical help.

SKIN: Wash thoroughly with hand cleanser, followed by soap and water. Contaminated clothing should be dry cleaned before reuse.

INGESTION: Wash out mouth immediately. Do not induce vomiting. Consult physician.

INHALATION: Clear air passage. If respiratory difficulty continues, seek medical help.

5. FIRE FIGHTING MEASURES

FLASH POINT AND METHOD: > 204°C (400°F) COC

AUTOIGNITION TEMPERATURE: > 315°C (600°F)

EXTINGUISHING MEDIA: Foam, dry powder, Halon®, carbon dioxide, sand, earth and water mist. Unsuitable: Water jet.

OTHER CONSIDERATIONS: Not flammable at ambient temp.

FIRE FIGHTING EQUIPMENT: Self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Contain spill and keep from entering waterways. Absorb on porous material. Large quantities can be pumped.

ENVIRONMENTAL PRECAUTIONS

LAND SPILL: Do not allow it to enter drains.

SPECIAL PROTECTIVE EQUIPMENT: Wear gloves and protective overalls.

7. HANDLING AND STORAGE

HANDLING: No special handling precautions necessary.

STORAGE: Do not store at elevated temperatures.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

PERSONAL PROTECTIVE EQUIPMENT

EYES AND FACE: Glasses, if applied to parts in motion.

SKIN: Oil-proof gloves for hypersensitive persons.

RESPIRATORY: Hydrocarbon absorbing respirator if misting.

PROTECTIVE CLOTHING: Overalls.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid

ODOR: Lube Oil

COLOR: Purple

pH: Neutral

PERCENT VOLATILE: None

VAPOR PRESSURE: < 0.1

VAPOR DENSITY: Greater than air

BOILING POINT: > 218°C (420°F)

POUR POINT: < 4.4°C

FLASH POINT AND METHOD: > 204°C (400°F) COC

SOLUBILITY IN WATER: Emulsifiable

EVAPORATION RATE: Negligible

DENSITY: > 0.87

10. STABILITY AND REACTIVITY

STABILITY: Chemically stable under normal conditions. No photoreactive agents.

CONDITIONS TO AVOID: Powerful sources of ignition and extreme temperatures.

HAZARDOUS DECOMPOSITION PRODUCTS: Burning generates smoke, airborne soot, hydrocarbons and oxides of carbon, sulfur and nitrogen. Residue mainly comprised of soot and mineral oxides.

INCOMPATIBLE MATERIALS: Strong inorganic and organic acids, oxidizing agents.

11. TOXICOLOGICAL INFORMATION

ACUTE

ORAL LD_{50}: > 5000 mg/kg

Notes: Extrapolated from component data

INHALATION LC_{50}: NA = Not Applicable

NOTES: Not known

SKIN EFFECTS: Very mild

CHRONIC: None known.

SUBCHRONIC: Not known

CARCINOGENICITY

IARC: No

NTP: No

OSHA: No

SENSITIZATION: Not known

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA: Due to its fluid nature and specific gravity, this product will float or spread across water making it a nuisance contaminant. It is not thought to be toxic to marine or land organisms.

BIOACCUMULATION/ACCUMULATION: Relatively well behaved. Bioaccumulation potential nil.

GENERAL COMMENTS: When released into the environment, adsorption to sediment and soil will be the predominant behavior.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Consider recycling. This product, as sold, does not meet the RCRA characteristics of a hazardous waste. Under RCRA, it is the responsibility of the user, at the time of disposal, to determine whether the product meets the RCRA criteria for hazardous waste. Contact a waste disposal company or local authority for advice.

EMPTY CONTAINER: See waste disposal section listed above.

RCRA HAZARD CLASS: Nonhazardous sources

14. TRANSPORT INFORMATION

DOT (DEPARTMENT OF TRANSPORTATION)

UN/NA NUMBER: N/A

OTHER SHIPPING INFORMATION: Nonhazardous

ROAD AND RAIL (ADR/RID): Bulk Nonhazardous

AIR (ICAO/IATA): Bulk Nonhazardous

VESSEL (IMO/IMDG): Bulk Nonhazardous

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HAZARD CATEGORIES: None

313 REPORTABLE INGREDIENTS: N/A

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

CERCLA REGULATORY: Nonhazardous

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA REGULATORY: All components are listed

CALIFORNIA PROPOSITION 65: N/A

CANADA

WHMIS (WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM): Not regulated

DOMESTIC SUBSTANCE LIST (INVENTORY): All components are listed

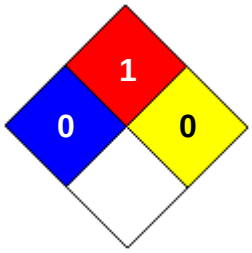
16. OTHER INFORMATION

REVISION SUMMARY: New MSDS

HMIS RATING

HEALTH:	0
FLAMMABILITY:	1
PHYSICAL HAZARD:	0
PERSONAL PROTECTION:	B

NFPA CODES



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Safety Data Sheet

RUST-OLEUM CORPORATION
* Trusted Quality Since 1921 *
www.rustoleum.com

1. Identification

Product Name:	PTOUCH 2X +SSPR 6PK GLOSS BRILLIANT BLUE	**Revision Date:**	5/17/2017
Product Identifier:	249120	**Supercedes Date:**	12/7/2016
Product Use/Class:	Topcoat/Aerosols		
Supplier:	Rust-Oleum Corporation 11 Hawthorn Parkway Vernon Hills, IL 60061 USA	**Manufacturer:**	Rust-Oleum Corporation 11 Hawthorn Parkway Vernon Hills, IL 60061 USA
Preparer:	Regulatory Department		
Emergency Telephone:	24 Hour Hotline: 847-367-7700		

2. Hazard Identification

Classification

Symbol(s) of Product

Signal Word
Danger

Possible Hazards
26% of the mixture consists of ingredient(s) of unknown acute toxicity.

GHS HAZARD STATEMENTS

Carcinogenicity, category 2	H351	Suspected of causing cancer.
Compressed Gas	H280	Contains gas under pressure; may explode if heated.
Eye Irritation, category 2	H319	Causes serious eye irritation.
Flammable Aerosol, category 1	H222	Extremely flammable aerosol.
STOT, repeated exposure, category 2	H373	May cause damage to organs through prolonged or repeated exposure.
STOT, single exposure, category 3, NE	H336	May cause drowsiness or dizziness.

GHS LABEL PRECAUTIONARY STATEMENTS

P201	Obtain special instructions before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P337+P313	If eye irritation persists: Get medical advice/attention.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P410+P403	Protect from sunlight. Store in a well-ventilated place.
P410+P412	Protect from sunlight. Do no expose to temperatures exceeding 50°C/ 122°F.
P501	Dispose of contents/container in accordance with local, regional and national regulations.

3. Composition/Information On Ingredients

HAZARDOUS SUBSTANCES

Chemical Name	CAS-No.	Wt.% Range	GHS Symbols	GHS Statements
Acetone	67-64-1	25-50	GHS02-GHS07	H225-319-332-336
Propane	74-98-6	10-25	GHS04	H280
n-Butane	106-97-8	2.5-10	GHS04	H280
Dimethyl Carbonate	616-38-6	2.5-10	GHS02	H225
Naphtha, Petroleum, Hydrotreated Light	64742-49-0	2.5-10	GHS08	H304
n-Butyl Acetate	123-86-4	2.5-10	GHS02-GHS07	H226-336
Xylenes (o-, m-, p- isomers)	1330-20-7	2.5-10	GHS02-GHS07	H226-315-319-332
Titanium Dioxide	13463-67-7	2.5-10	Not Available	Not Available
Solvent Naphtha, Light Aromatic	64742-95-6	1.0-2.5	GHS07-GHS08	H304-332
Ethylbenzene	100-41-4	1.0-2.5	GHS02-GHS07-GHS08	H225-304-332-351-373
Ethylene Glycol Monobutyl Ether	111-76-2	0.1-1.0	GHS07	H302-312-315-319-332

4. First-aid Measures

FIRST AID - EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes holding eyelids open. Get medical attention. Do NOT allow rubbing of eyes or keeping eyes closed.

FIRST AID - SKIN CONTACT: Wash skin with soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persists.

FIRST AID - INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention. Do NOT use mouth-to-mouth resuscitation. If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical assistance immediately.

FIRST AID - INGESTION: Aspiration hazard: Do not induce vomiting or give anything by mouth because this material can enter the lungs and cause severe lung damage. Get immediate medical attention. If swallowed, get medical attention.

5. Fire-fighting Measures

EXTINGUISHING MEDIA: Alcohol Film Forming Foam, Carbon Dioxide, Dry Chemical, Dry Sand, Water Fog

UNUSUAL FIRE AND EXPLOSION HAZARDS: FLASH POINT IS LESS THAN 20°F. EXTREMELY FLAMMABLE LIQUID AND VAPOR!Water spray may be ineffective. Closed containers may explode when exposed to extreme heat due to buildup of steam. Closed containers may explode when exposed to extreme heat. Vapors may form explosive mixtures with air. Vapors can travel to a source of ignition and flash back. Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Perforation of the pressurized container may cause bursting of the can. No unusual fire or explosion hazards noted.

SPECIAL FIREFIGHTING PROCEDURES: Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion. Full protective equipment including self-contained breathing apparatus should be used. Evacuate area and fight fire from a safe distance. Use water spray to keep fire-exposed containers cool. Containers may explode when heated.

6. Accidental Release Measures

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Contain spilled liquid with sand or earth. DO NOT use combustible materials such as sawdust. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Remove all sources of ignition, ventilate area and remove with inert absorbent and non-sparking tools. Dispose of according to local, state (provincial) and federal regulations. Do not incinerate closed containers. Ventilate area, isolate spilled material, and remove with inert absorbent. Dispose of contaminated absorbent, container, and unused contents in accordance with local, state, and federal regulations.

7. Handling and Storage

HANDLING: Wash thoroughly after handling. Wash hands before eating. Remove contaminated clothing and launder before reuse. Use only with adequate ventilation. Follow all MSDS/label precautions even after container is emptied because it may retain product residues. Avoid breathing fumes, vapors, or mist. Avoid contact with eyes, skin and clothing.

STORAGE: Store in a dry, well ventilated place. Keep container tightly closed when not in use. Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Contents under pressure. Do not store above 120 ° F. Store large quantities in buildings designed and protected for storage of flammable aerosols. Keep away from heat, sparks, flame and sources of ignition. Avoid excess heat. Product should be stored in tightly sealed containers and protected from heat, moisture, and foreign materials.

8. Exposure Controls/Personal Protection

Chemical Name	CAS-No.	Weight % Less Than	ACGIH TLV-TWA	ACGIH TLV-STEL	OSHA PEL-TWA	OSHA PEL-CEILING
Acetone	67-64-1	30.0	250 ppm	500 ppm	1000 ppm	N.E.
Propane	74-98-6	20.0	N.E.	N.E.	1000 ppm	N.E.
n-Butane	106-97-8	10.0	N.E.	1000 ppm	N.E.	N.E.
Dimethyl Carbonate	616-38-6	10.0	N.E.	N.E.	N.E.	N.E.
Naphtha, Petroleum, Hydrotreated Light	64742-49-0	10.0	N.E.	N.E.	N.E.	N.E.
n-Butyl Acetate	123-86-4	10.0	50 ppm	150 ppm	150 ppm	N.E.
Xylenes (o-, m-, p- isomers)	1330-20-7	5.0	100 ppm	150 ppm	100 ppm	N.E.
Titanium Dioxide	13463-67-7	5.0	10 mg/m3	N.E.	15 mg/m3	N.E.
Solvent Naphtha, Light Aromatic	64742-95-6	5.0	N.E.	N.E.	N.E.	N.E.
Ethylbenzene	100-41-4	5.0	20 ppm	N.E.	100 ppm	N.E.
Ethylene Glycol Monobutyl Ether	111-76-2	1.0	20 ppm	N.E.	50 ppm	N.E.

PERSONAL PROTECTION

ENGINEERING CONTROLS: Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof ventilation equipment. Provide general dilution of local exhaust ventilation in volume and pattern to keep TLV of hazardous ingredients below acceptable limits. Prevent build-up of vapors by opening all doors and windows to achieve cross-ventilation.

RESPIRATORY PROTECTION: A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use. A NIOSH/MSHA approved air purifying respirator with organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits.

SKIN PROTECTION: Use gloves to prevent prolonged skin contact. Nitrile or Neoprene gloves may afford adequate skin protection.

EYE PROTECTION: Use safety eyewear designed to protect against splash of liquids.

OTHER PROTECTIVE EQUIPMENT: Refer to safety supervisor or industrial hygienist for further guidance regarding types of personal protective equipment and their applications.

HYGIENIC PRACTICES: Wash thoroughly with soap and water before eating, drinking or smoking. Remove contaminated clothing immediately and launder before reuse.

9. Physical and Chemical Properties

Appearance:	Aerosolized Mist	**Physical State:**	Liquid
Odor:	Solvent Like	**Odor Threshold:**	N.E.
Relative Density:	0.764	**pH:**	N.A.
Freeze Point, °C:	N.D.	**Viscosity:**	N.D.
Solubility in Water:	Slight	**Partition Coefficient, n-octanol/water:**	N.D.
Decompostion Temp., °C:	N.D.		
Boiling Range, °C:	-37 - 260	**Explosive Limits, vol%:**	0.9 - 13.0
Flammability:	Supports Combustion	**Flash Point, °C:**	-96
Evaporation Rate:	Faster than Ether	**Auto-ignition Temp., °C:**	N.D.
Vapor Density:	Heavier than Air	**Vapor Pressure:**	N.D.

(See "Other information" Section for abbreviation legend)

10. Stability and Reactivity

CONDITIONS TO AVOID: Avoid temperatures above 120°F (49°C). Avoid contact with strong acid and strong bases. Avoid all possible sources of ignition.

INCOMPATIBILITY: Incompatible with strong oxidizing agents, strong acids and strong alkalies.

HAZARDOUS DECOMPOSITION: By open flame, carbon monoxide and carbon dioxide. When heated to decomposition, it emits acrid smoke and irritating fumes. Contains solvents which may form carbon monoxide, carbon dioxide, and formaldehyde.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

STABILITY: This product is stable under normal storage conditions.

11. Toxicological information

EFFECTS OF OVEREXPOSURE - EYE CONTACT: Causes Serious Eye Irritation

EFFECTS OF OVEREXPOSURE - SKIN CONTACT: May cause skin irritation. Allergic reactions are possible.

EFFECTS OF OVEREXPOSURE - INHALATION: Harmful if inhaled. High gas, vapor, mist or dust concentrations may be harmful if inhaled. Avoid breathing fumes, spray, vapors, or mist. High vapor concentrations are irritating to the eyes, nose, throat and lungs. Prolonged or excessive inhalation may cause respiratory tract irritation.

EFFECTS OF OVEREXPOSURE - INGESTION: Harmful if swallowed.

EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS: May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion, and blurred vision) and/or damage. High concentrations may lead to central nervous system effects (drowsiness, dizziness, nausea, headaches, paralysis, and blurred vision) and/or damage. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Overexposure to xylene in laboratory animals has been associated with liver abnormalities, kidney, lung, spleen, eye and blood damage as well as reproductive disorders. Effects in humans, due to chronic overexposure, have included liver, cardiac abnormalities and nervous system damage. IARC lists Ethylbenzene as a possible human carcinogen (group 2B). Contains Titanium Dioxide. Titanium Dioxide is listed as a Group 2B-"Possibly carcinogenic to humans" by IARC. No significant exposure to Titanium Dioxide is thought to occur during the use of products in which Titanium Dioxide is bound to other materials, such as in paints during brush application or drying. Risk of overexposure depends on duration and level of exposure to dust from repeated sanding of surfaces or spray mist and the actual concentration of Titanium Dioxide in the formula. (Ref: IARC Monograph, Vol. 93, 2010)

PRIMARY ROUTE(S) OF ENTRY: Eye Contact, Ingestion, Inhalation, Skin Absorption, Skin Contact

ACUTE TOXICITY VALUES

The acute effects of this product have not been tested. Data on individual components are tabulated below:

CAS-No.	Chemical Name	Oral LD50	Dermal LD50	Vapor LC50
67-64-1	Acetone	5800 mg/kg Rat	>15700 mg/kg Rabbit	50.1 mg/L Rat
74-98-6	Propane	N.I.	N.I.	658 mg/L Rat
106-97-8	n-Butane	N.I.	N.I.	658 mg/L Rat
616-38-6	Dimethyl Carbonate	13000 mg/kg Rat	>5000 mg/kg Rabbit	140 mg/L Rat
64742-49-0	Naphtha, Petroleum, Hydrotreated Light	>5000 mg/kg Rat	>3160 mg/kg Rabbit	>4951 mg/L Rat
123-86-4	n-Butyl Acetate	10768 mg/kg Rat	>17600 mg/kg Rabbit	> 21 mg/L Rat
1330-20-7	Xylenes (o-, m-, p- isomers)	3500 mg/kg Rat	>4350 mg/kg Rabbit	29.08 mg/L Rat
13463-67-7	Titanium Dioxide	>10000 mg/kg Rat	2500 mg/kg	N.I.
64742-95-6	Solvent Naphtha, Light Aromatic	8400 mg/kg Rat	>2000 mg/kg Rabbit	N.I.
100-41-4	Ethylbenzene	3500 mg/kg Rat	15400 mg/kg Rabbit	17.4 mg/L Rat

111-76-2	Ethylene Glycol Monobutyl Ether	470 mg/kg Rat	1,060 mg/kg Rabbit	11 mg/L

N.I. - No Information

12. Ecological Information

ECOLOGICAL INFORMATION: Product is a mixture of listed components.

13. Disposal Information

DISPOSAL INFORMATION: Dispose of material in accordance to local, state, and federal regulations and ordinances. Do not allow to enter waterways, wastewater, soil, storm drains or sewer systems.

14. Transport Information

	Domestic (USDOT)	International (IMDG)	Air (IATA)	TDG (Canada)
UN Number:	N.A.	1950	1950	N.A.
Proper Shipping Name:	Paint Products in Limited Quantities	Aerosols	Aerosols	Paint Products in Limited Quantities
Hazard Class:	N.A.	2.1	2.1	N.A.
Packing Group:	N.A.	N.A.	N.A.	N.A.
Limited Quantity:	Yes	Yes	Yes	Yes

15. Regulatory Information

U.S. Federal Regulations:

CERCLA - SARA Hazard Category

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Fire Hazard, Pressure Hazard, Acute Health Hazard, Chronic Health Hazard

Sara Section 313:

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

Chemical Name	CAS-No.
Dimethyl Carbonate	616-38-6
Xylenes (o-, m-, p- isomers)	1330-20-7
Ethylbenzene	100-41-4
Ethylene Glycol Monobutyl Ether	111-76-2

Toxic Substances Control Act:

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(b) if exported from the United States:

No TSCA 12(b) components exist in this product.

16. Other Information

HMIS RATINGS

Health:	2*	**Flammability:**	4	**Physical Hazard:**	0	**Personal Protection:**	X

NFPA RATINGS

Health:	2	**Flammability:**	4	**Instability**	0

VOLATILE ORGANIC COMPOUNDS, g/L: 558

SDS REVISION DATE: 5/17/2017

REASON FOR REVISION: Product Composition Changed
Substance and/or Product Properties Changed in Section(s):
02 - Hazard Identification
16 - Other Information
Statement(s) Changed

Legend: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

Rust-Oleum Corporation believes, to the best of its knowledge, information and belief, the information contained herein to be accurate and reliable as of the date of this safety data sheet. However, because the conditions of handling, use, and storage of these materials are beyond our control, we assume no responsibility or liability for personal injury or property damage incurred by the use of these materials. Rust-Oleum Corporation makes no warranty, expressed or implied, regarding the accuracy or reliability of the data or results obtained from their use. All materials may present unknown hazards and should be used with caution. The information and recommendations in this material safety data sheet are offered for the users' consideration and examination. It is the responsibility of the user to determine the final suitability of this information and to comply with all applicable international, federal, state, and local laws and regulations.

Safety Data Sheet

RUST-OLEUM CORPORATION
* Trusted Quality Since 1921 *
www.rustoleum.com

1. Identification

Product Name:	PTOUCH 2X +SSPR 6PK GLOSS REAL ORANGE	**Revision Date:**	6/1/2022
Product Identifier:	249095	**Supercedes Date:**	11/6/2018
Recommended Use:	Topcoat/Aerosols		
Supplier:	Rust-Oleum Corporation 11 Hawthorn Parkway Vernon Hills, IL 60061 USA	**Manufacturer:**	Rust-Oleum Corporation 11 Hawthorn Parkway Vernon Hills, IL 60061 USA
Preparer:	Regulatory Department		
Emergency Telephone:	24 Hour Hotline: 847-367-7700		

2. Hazards Identification

Classification

Symbol(s) of Product

Signal Word
Danger

Possible Hazards
34% of the mixture consists of ingredient(s) of unknown acute toxicity.

GHS HAZARD STATEMENTS

Carcinogenicity, category 1B	H350	May cause cancer.
Eye Irritation, category 2A	H319	Causes serious eye irritation.
Flammable Aerosol, category 1	H222	Extremely flammable aerosol.
Gases under Pressure; Compressed Gas	H280	Contains gas under pressure; may explode if heated.
Germ Cell Mutagenicity, category 1B	H340	May cause genetic defects.
STOT, Single Exposure, category 3, NE	H336	May cause drowsiness or dizziness.
Skin Sensitizer, category 1	H317	May cause an allergic skin reaction.

GHS LABEL PRECAUTIONARY STATEMENTS

P201	Obtain special instructions before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. NO SMOKING.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.

P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P321	For specific treatment see label.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P410+P403	Protect from sunlight. Store in a well-ventilated place.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50°C (122°F).
P501	Dispose of contents/container in accordance with local, regional and national regulations.

GHS SDS PRECAUTIONARY STATEMENTS

P363	Wash contaminated clothing before reuse.

3. Composition / Information on Ingredients

HAZARDOUS SUBSTANCES

Chemical Name	CAS-No.	Wt.% Range	GHS Symbols	GHS Statements
Acetone	67-64-1	25-50	GHS02-GHS07	H225-319-332-336
Propane	74-98-6	10-25	GHS04	H280
Aliphatic Hydrocarbon	64742-89-8	2.5-10	GHS08	H304-340-350
n-Butane	106-97-8	2.5-10	GHS04	H280
n-Butyl Acetate	123-86-4	2.5-10	GHS02-GHS07	H226-336
Solvent Naphtha, Light Aromatic	64742-95-6	2.5-10	GHS07-GHS08	H304-332
Pigment Yellow 83	5567-15-7	1.0-2.5	GHS07	H302
Barium Sulfate	7727-43-7	1.0-2.5	GHS07	H332
Xylenes (o-, m-, p- Isomers)	1330-20-7	1.0-2.5	GHS02-GHS07	H226-315-319-332
1,2,4-Trimethylbenzene	95-63-6	1.0-2.5	GHS02-GHS07-GHS08	H226-304-315-319-332-335
Titanium Dioxide	13463-67-7	0.1-1.0	Not Available	Not Available
Dipropylene Glycol Monobutyl Ether	29911-28-2	0.1-1.0	Not Available	Not Available
Ethylbenzene	100-41-4	0.1-1.0	GHS02-GHS07-GHS08	H225-304-332-351-373
Methyl Ethyl Ketoxime	96-29-7	0.1-1.0	GHS05-GHS06-GHS07-GHS08	H302-312-315-317-318-331-336-370-373
Zirconium Acetate	5153-24-2	<0.1	Not Available	Not Available

4. First-Aid Measures

FIRST AID - EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes holding eyelids open. Get medical attention. Do NOT allow rubbing of eyes or keeping eyes closed.

FIRST AID - SKIN CONTACT: Wash skin with soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persists.

FIRST AID - INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention. Do NOT use mouth-to-mouth resuscitation. If you experience difficulty in breathing, leave the area to obtain fresh air. If continued difficulty is experienced, get medical assistance immediately.

FIRST AID - INGESTION: Aspiration hazard: Do not induce vomiting or give anything by mouth because this material can enter the lungs and cause severe lung damage. Get immediate medical attention. If swallowed, get medical attention.

5. Fire-Fighting Measures

EXTINGUISHING MEDIA: Alcohol Film Forming Foam, Carbon Dioxide, Dry Chemical, Dry Sand, Water Fog

UNUSUAL FIRE AND EXPLOSION HAZARDS: FLASH POINT IS LESS THAN -7°C (20°F). EXTREMELY FLAMMABLE LIQUID AND VAPOR!Water spray may be ineffective. Closed containers may explode when exposed to extreme heat due to buildup of steam. Closed containers may explode when exposed to extreme heat. Vapors may form explosive mixtures with air. Vapors can travel to a source of ignition and flash back. Isolate from heat, electrical equipment, sparks and open flame. Perforation of the pressurized container may cause bursting of the can.

SPECIAL FIREFIGHTING PROCEDURES: Water may be used to cool closed containers to prevent pressure buildup and possible autoignition or explosion. Full protective equipment including self-contained breathing apparatus should be used. Evacuate area and fight fire from a safe distance. Use water spray to keep fire-exposed containers cool. Containers may explode when heated.

Special Fire and Explosion Hazard (Combustible Dust): No Information

6. Accidental Release Measures

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Contain spilled liquid with sand or earth. DO NOT use combustible materials such as sawdust. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Remove all sources of ignition, ventilate area and remove with inert absorbent and non-sparking tools. Dispose of according to local, state (provincial) and federal regulations. Do not incinerate closed containers. Ventilate area, isolate spilled material, and remove with inert absorbent. Dispose of contaminated absorbent, container, and unused contents in accordance with local, state, and federal regulations.

7. Handling and Storage

HANDLING: Wash thoroughly after handling. Wash hands before eating. Remove contaminated clothing and launder before reuse. Use only in a well-ventilated area. Use only with adequate ventilation. Follow all SDS and label precautions even after container is emptied because it may retain product residues. Avoid breathing fumes, vapors, or mist. Avoid contact with eyes, skin and clothing.

STORAGE: Keep containers tightly closed. Isolate from heat, electrical equipment, sparks and open flame. Contents under pressure. Do not store above 120°F (49°C). Store large quantities in buildings designed and protected for storage of flammable aerosols. Keep away from heat, sparks, flame and sources of ignition. Contents under pressure. Do not expose to heat or store above 120°F (49°C). Avoid excess heat. Product should be stored in tightly sealed containers and protected from heat, moisture, and foreign materials.

Advice on Safe Handling of Combustible Dust: No Information

8. Exposure Controls / Personal Protection

Chemical Name	CAS-No.	Weight % Less Than	ACGIH TLV-TWA	ACGIH TLV-STEL	OSHA PEL-TWA	OSHA PEL-CEILING
Acetone	67-64-1	40.0	250 ppm	500 ppm	1000 ppm	N.E.
Propane	74-98-6	20.0	N.E.	N.E.	1000 ppm	N.E.
Aliphatic Hydrocarbon	64742-89-8	10.0	N.E.	N.E.	N.E.	N.E.
n-Butane	106-97-8	10.0	N.E.	1000 ppm	N.E.	N.E.
n-Butyl Acetate	123-86-4	5.0	50 ppm	150 ppm	150 ppm	N.E.
Solvent Naphtha, Light Aromatic	64742-95-6	5.0	N.E.	N.E.	N.E.	N.E.
Pigment Yellow 83	5567-15-7	5.0	N.E.	N.E.	N.E.	N.E.
Barium Sulfate	7727-43-7	5.0	5 mg/m3	N.E.	15 mg/m3	N.E.
Xylenes (o-, m-, p- Isomers)	1330-20-7	5.0	100 ppm	150 ppm	100 ppm	N.E.
1,2,4-Trimethylbenzene	95-63-6	5.0	N.E.	N.E.	N.E.	N.E.
Titanium Dioxide	13463-67-7	1.0	0.2 mg/m3	N.E.	15 mg/m3	N.E.
Dipropylene Glycol Monobutyl Ether	29911-28-2	1.0	N.E.	N.E.	N.E.	N.E.
Ethylbenzene	100-41-4	1.0	20 ppm	N.E.	100 ppm	N.E.
Methyl Ethyl Ketoxime	96-29-7	1.0	10 ppm	N.E.	N.E.	N.E.
Zirconium Acetate	5153-24-2	0.1	5 mg/m3	10 mg/m3	5 mg/m3	N.E.

PERSONAL PROTECTION

ENGINEERING CONTROLS: Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof ventilation equipment. Provide general dilution of local exhaust ventilation in volume and pattern to keep TLV of hazardous ingredients below acceptable limits. Prevent build-up of vapors by opening all doors and windows to achieve cross-ventilation.

RESPIRATORY PROTECTION: A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use. A NIOSH/MSHA approved air purifying respirator with organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits.

SKIN PROTECTION: Use impervious gloves to prevent skin contact and absorption of this material through the skin.

EYE PROTECTION: Use safety eyewear designed to protect against splash of liquids.

OTHER PROTECTIVE EQUIPMENT: Refer to safety supervisor or industrial hygienist for further guidance regarding types of personal protective equipment and their applications. Refer to safety supervisor or industrial hygienist for further information regarding personal protective equipment and its application.

HYGIENIC PRACTICES: Wash thoroughly with soap and water before eating, drinking or smoking. Remove contaminated clothing immediately and launder before reuse.

Engineering Measures for Combustible Dust: No Information

9. Physical and Chemical Properties

Appearance:	Aerosolized Mist	**Physical State:**	Liquid
Odor:	Solvent Like	**Odor Threshold:**	N.E.
Specific Gravity:	0.755	**pH:**	N.A.
Freeze Point, °C:	N.D.	**Viscosity:**	N.D.
Solubility in Water:	Slight	**Partition Coefficient, n-octanol/ water:**	N.D.
Decomposition Temp., °C:	N.D.		
Boiling Range, °C:	-37 - 537	**Explosive Limits, vol%:**	0.9 - 13.0
Flammability:	Supports Combustion	**Flash Point, °C:**	-96
Evaporation Rate:	Faster than Ether	**Auto-Ignition Temp., °C:**	N.D.
Vapor Density:	Heavier than Air	**Vapor Pressure:**	N.D.

(See "Other information" Section for abbreviation legend)

10. Stability and Reactivity

Conditions to Avoid: Avoid temperatures above 120°F (49°C). Avoid all possible sources of ignition.

Incompatibility: Incompatible with strong oxidizing agents, strong acids and strong alkalies.

Hazardous Decomposition: By open flame, carbon monoxide and carbon dioxide. When heated to decomposition, it emits acrid smoke and irritating fumes. Contains solvents which may form carbon monoxide, carbon dioxide, and formaldehyde.

Hazardous Polymerization: Will not occur under normal conditions.

Stability: This product is stable under normal storage conditions.

11. Toxicological Information

EFFECTS OF OVEREXPOSURE - EYE CONTACT: Causes Serious Eye Irritation

EFFECTS OF OVEREXPOSURE - SKIN CONTACT: Substance may cause slight skin irritation. Prolonged or repeated contact may cause skin irritation.

EFFECTS OF OVEREXPOSURE - INHALATION: Harmful if inhaled. High gas, vapor, mist or dust concentrations may be harmful if inhaled. Avoid breathing fumes, spray, vapors, or mist. High vapor concentrations are irritating to the eyes, nose, throat and lungs. Prolonged or excessive inhalation may cause respiratory tract irritation.

EFFECTS OF OVEREXPOSURE - INGESTION: Harmful if swallowed.

EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS: May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion, and blurred vision) and/or damage. High concentrations may lead to central nervous system effects (drowsiness, dizziness, nausea, headaches, paralysis, and blurred vision) and/or damage. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage. Overexposure to xylene in laboratory animals has been associated with liver abnormalities, kidney, lung, spleen, eye and blood damage as well as reproductive disorders. Effects in humans, due to chronic overexposure, have included liver, cardiac abnormalities and nervous system damage. IARC lists Ethylbenzene as a possible human carcinogen (group 2B). Contains Titanium Dioxide. Titanium Dioxide is listed as a Group 2B-"Possibly carcinogenic to humans" by IARC. No significant exposure to Titanium

Dioxide is thought to occur during the use of products in which Titanium Dioxide is bound to other materials, such as in paints during brush application or drying. Risk of overexposure depends on duration and level of exposure to dust from repeated sanding of surfaces or spray mist and the actual concentration of Titanium Dioxide in the formula. (Ref: IARC Monograph, Vol. 93, 2010)

PRIMARY ROUTE(S) OF ENTRY: Eye Contact, Ingestion, Inhalation, Skin Absorption, Skin Contact

ACUTE TOXICITY VALUES

The acute effects of this product have not been tested. Data on individual components are tabulated below:

CAS-No.	Chemical Name	Oral LD50	Dermal LD50	Vapor LC50
67-64-1	Acetone	5800 mg/kg Rat	>15700 mg/kg Rabbit	50.1 mg/L Rat
64742-89-8	Aliphatic Hydrocarbon	N.E.	3000 mg/kg Rabbit	N.E.
106-97-8	n-Butane	N.E.	N.E.	658 mg/L Rat
123-86-4	n-Butyl Acetate	10768 mg/kg Rat	>17600 mg/kg Rabbit	> 21 mg/L Rat
64742-95-6	Solvent Naphtha, Light Aromatic	8400 mg/kg Rat	>2000 mg/kg Rabbit	N.E.
5567-15-7	Pigment Yellow 83	>1750 mg/kg Rat	N.E.	N.E.
7727-43-7	Barium Sulfate	307000 mg/kg Rat	N.E.	N.E.
1330-20-7	Xylenes (o-, m-, p- Isomers)	3500 mg/kg Rat	>4350 mg/kg Rabbit	29.08 mg/L Rat
95-63-6	1,2,4-Trimethylbenzene	3280 mg/kg Rat	>3160 mg/kg Rabbit	18 mg/L Rat
13463-67-7	Titanium Dioxide	>10000 mg/kg Rat	6000	N.E.
29911-28-2	Dipropylene Glycol Monobutyl Ether	N.E.	N.E.	25
100-41-4	Ethylbenzene	3500 mg/kg Rat	15400 mg/kg Rabbit	17.4 mg/L Rat
96-29-7	Methyl Ethyl Ketoxime	930 mg/kg Rat	1100 mg/kg Rabbit	>4.83 mg/L Rat

N.E. - Not Established

12. Ecological Information

ECOLOGICAL INFORMATION: Product is a mixture of listed components. Product is a mixture of listed components.

13. Disposal Information

DISPOSAL: Do not incinerate closed containers. Dispose of material in accordance to local, state, and federal regulations and ordinances. This product as supplied is a USEPA defined ignitable hazardous waste. Dispose of unusable product as a hazardous waste (D001) in accordance with local, state, and federal regulation.

14. Transport Information

	Domestic (USDOT)	International (IMDG)	Air (IATA)	TDG (Canada)
UN Number:	N.A.	1950	1950	N.A.
Proper Shipping Name:	Paint and Related Spray Products in Ltd Qty	Aerosols	Aerosols, flammable	Aerosols
Hazard Class:	N.A.	2	2.1	N.A.
Packing Group:	N.A.	N.A.	N.A.	N.A.
Limited Quantity:	Yes	Yes	Yes	Yes

15. Regulatory Information

U.S. Federal Regulations:

CERCLA - SARA Hazard Category

This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Gas under pressure, Carcinogenicity, Respiratory or Skin Sensitization, Serious eye damage or eye irritation, Specific target organ toxicity (single or repeated exposure), Germ cell mutagenicity

SARA Section 313

This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR part 372:

Chemical Name	CAS-No.
Barium Sulfate	7727-43-7
Xylenes (o-, m-, p- Isomers)	1330-20-7
1,2,4-Trimethylbenzene	95-63-6
Ethylbenzene	100-41-4

Toxic Substances Control Act

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(b) if exported from the United States:

No TSCA 12(b) components exist in this product.

U.S. State Regulations:

California Proposition 65

WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov.

16. Other Information

HMIS RATINGS

Health:	2*	**Flammability:**	4	**Physical Hazard:**	0	**Personal Protection:**	X

NFPA RATINGS

Health:	2	**Flammability:**	4	**Instability:**	0

Maximum Incremental Reactivity: 0.94

SDS REVISION DATE: 6/1/2022

REASON FOR REVISION: Product Composition Changed
Substance and/or Product Properties Changed in Section(s):
01 - Identification
02 - Hazard Identification
09 - Physical & Chemical Properties
16 - Other Information
Revision Statement(s) Changed

Legend: N.A. - Not Applicable, N.D. - Not Determined, N.E. - Not Established

Rust-Oleum Corporation believes, to the best of its knowledge, information and belief, the information contained herein to be accurate and reliable as of the date of this safety data sheet. However, because the conditions of handling, use, and storage of these materials are beyond our control, we assume no responsibility or liability for personal injury or property damage incurred by the use of these materials. Rust-Oleum Corporation makes no warranty, expressed or implied, regarding the accuracy or reliability of the data or results obtained from their use. All materials may present unknown hazards and should be used with caution. The information and recommendations in this material safety data sheet are offered for the users' consideration and examination. It is the responsibility of the user to determine the final suitability of this information and to comply with all applicable international, federal, state, and local laws and regulations.

Seasense Marine/Sports Horn

Safety Data Sheet

According to Federal Register Rules and Regulations

Revision date: 03/21/2017 :

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form	: Substance
Trade name	: Seasense Marine/Sports Horn
Model Numbers	: 50074008,50074035, 50074041, 50074080
CAS No	: 75-37-6
Formula	: C2H2F4

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture	: Aerosol Horn

1.3. Details of the supplier of the safety data sheet

Unified Marine Inc.

4488 112th Street

Urbandale, IA 50322

T 800-282-8725

1.4. Emergency telephone number

Emergency number	: 800-282-8725

SECTION 2: Hazards identification

GHS Categories

Criteria		Category	Signal Word	Pictograms
Gas Under Pressure	Liquefied Gas	3	Warning	Gas Cylinder

Note: Non-flammable Aerosol. Not defined as flammable aerosol because heat of combustion is <20 kJ/g, ignition distance <15 cm, and it passes enclosed space ignition test according to 16 CFR 1500.3(c)(6) for the U.S. Federal Hazard Substance Act of the Consumer Product Safety Commission regulations. Not defined as a flammable aerosol under the Canadian Controlled Product Regulation SOR/88-66, 40 Division 5 criteria.

Label Elements

Signal Word	WARNING
Pictograms	**Hazard Statements**
	H280: Contains gas under pressure; may explode if heated
Prevention	**Precautionary Statements**
P251	Do not pierce or burn, even after use.
Storage	**Precautionary Statements**
P410 + P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C [122 °F].

Hazards Not Otherwise Classified

HCS2012 Criteria	Hazard Statements/Precautionary Statement	Signal Word	Pictograms
Simple Asphyxiant	May displace oxygen and cause rapid suffocation.	Warning	Not applicable
Other Criteria	**Hazard Statements/Precautionary Statement**	**Signal Word**	**Pictograms**
Frostbite	Skin contact with liquid or aerosol jet may lead to frostbite	Warning	Not applicable
Specific flammability	Liquid form is flammable. (Liquid form can be ejected if the aerosol can is not held upright during use.)	Warning	Not applicable
Intentional Overexposure	Intentional misuse and inhalation abuse may cause cardiac or central nervous systems effects.	Warning	Not applicable
	May form explosive gas mixture with air.	Warning	Not applicable

SECTION 3: Composition/information on

3.1. Substance

Name : 1,1-Difluoroethane, liquefied, under pressure

CAS No : 75-37-6

EC no : 200-866-1

Name	Product identifier	%	Classification (GHS-US)
1,1-Difluoroethane, liquefied, under pressure (Main constituent)	(CAS No)75-37-6	> 99	Liquefied gas, H280

3.2. Mixture

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with labored breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up).
Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital. Never give alcohol to drink.

First-aid measures after inhalation : Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.

First-aid measures after skin contact : Rinse with water. In case of frostbites: Wash immediately with lots of water (15 minutes)/shower. Remove clothing while washing. Do not remove clothing if it sticks to the skin. Cover wounds with sterile bandage. Consult a doctor/medical service. If burned surface > 10%: take victim to hospital.

First-aid measures after eye contact : Rinse with water. Do not apply neutralizing agents. Take victim to an ophthalmologist if irritation persists.

First-aid measures after ingestion : Not applicable.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : Contains refrigerated gas; may cause cryogenic burns or injury. Not expected to present a significant hazard under anticipated conditions of normal use.

Symptoms/injuries after inhalation : EXPOSURE TO HIGH CONCENTRATIONS: Dizziness. Slight irritation. Headache. Nausea. Vomiting. Coordination disorders. Disturbances of consciousness. Disturbances of heart rate.

Symptoms/injuries after skin contact : Frostbites.

Symptoms/injuries after eye contact : No data available.

Symptoms/injuries after ingestion : Not applicable.

Chronic symptoms : No effects known.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. BC powder. Carbon dioxide.

Unsuitable extinguishing media : No unsuitable extinguishing media known.

5.2. Special hazards arising from the substance or mixture

Fire hazard : DIRECT FIRE HAZARD. Flammable aerosol. Gas/vapor flammable with air within explosion limits. INDIRECT FIRE HAZARD. May build up electrostatic charges: risk of ignition. May be ignited by sparks. Gas/vapor spreads at floor level: ignition hazard.

Explosion hazard : DIRECT EXPLOSION HAZARD. Gas/vapor explosive with air within explosion limits. INDIRECT EXPLOSION HAZARD. Heat may cause pressure rise in tanks/drums: explosion risk. may be ignited by sparks.

Reactivity : On heating/burning: release of toxic and corrosive gases/vapor e.g.: hydrofluoric acid, carbonylfluoride. Reacts violently with (strong) oxidizers.

5.3. Advice for firefighters

Firefighting instructions : If no hazard for/from the surroundings: controlled burning. If hazardous substances are nearby: consider extinguishment. Extinguish only if gas supply/leak can be shut afterwards. Cool tanks/drums with water spray/remove them into safety. Physical explosion risk: extinguish/cool from behind cover. Do not move the load if exposed to heat. After cooling: persistent risk of physical explosion. Dilute toxic gases with water spray.

Protection during firefighting : Heat/fire exposure: compressed air/oxygen apparatus.

Other information : NFPA Aerosol Level 1.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Remove ignition sources. Use special care to avoid static electric charges. Eliminate every possible source of ignition. No naked lights. No smoking.

6.1.1. For non-emergency personnel

Protective equipment : Insulating gloves. Protective goggles. Protective clothing. Large spills/in enclosed spaces: compressed air apparatus. See "Material-Handling" to select protective clothing.

Emergency procedures : Keep upwind. Mark the danger area. Consider evacuation. Seal off low-lying areas. Close doors and windows of adjacent premises. Stop engines and no smoking. No naked flames or sparks. Spark- and explosionproof appliances and lighting equipment. Avoid ingress of water in the containers. Wash contaminated clothes.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent spreading in sewers.

6.3. Methods and material for containment and cleaning up

For containment : Contain released substance, pump into suitable containers. Consult "Material-handling" to select material of containers. Plug the leak, cut off the supply. Dam up the liquid spill. Tip the container on one side to stop the leakage. Try to reduce evaporation. Measure the concentration of the explosive gas-air mixture. Dilute/disperse combustible gas/vapor with water curtain. Provide equipment/receptacles with earthing. Do not spray water on unheated tank walls. Do not use compressed air for pumping over spills.

Methods for cleaning up : Damaged/cooled tanks must be emptied. Do not use compressed air for pumping over spills. See "Material-handling" for suitable container materials. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Pressurized container: Do not pierce or burn, even after use.

Precautions for safe handling : Comply with the legal requirements. Clean contaminated clothing. Handle uncleaned empty containers as full ones. Thoroughly clean/dry the installation before use. Do not use compressed air for pumping over. Use spark-/explosionproof appliances and lighting system. Take precautions against electrostatic charges. Keep away from naked flames/heat. Keep away from ignition sources/sparks. Observe normal hygiene standards. Measure the concentration in the air regularly. Measure the oxygen concentration in the air. Work under local exhaust/ventilation.

Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Level 1 Aerosol.
Proper grounding procedures to avoid static electricity should be followed.

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Keep container closed when not in use. Keep in fireproof place. Do not expose to temperatures exceeding 50 °C/ 122 °F.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Sources of ignition. Direct sunlight. Heat sources.

Storage temperature : < 50 °C

Heat of Combustion : -7,950 Btu/lb = -4,420 cal/g = -185X10+5 J/kg

Heat-ignition : KEEP SUBSTANCE AWAY FROM: heat sources. ignition sources.

Prohibitions on mixed storage : KEEP SUBSTANCE AWAY FROM: oxidizing agents.

Storage area : Ventilation at floor level. Fireproof storeroom. Provide for a tub to collect spills. Provide the tank with earthing. Keep out of direct sunlight. Meet the legal requirements.

Special rules on packaging : SPECIAL REQUIREMENTS: with pressure relief valve. clean. correctly labelled. meet the legal requirements.

Packaging materials : SUITABLE MATERIAL: steel. stainless steel. monel steel. lead. aluminium. copper. tin.

7.3. Specific end use(s)

Follow Label Directions.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.2. Exposure controls

Appropriate engineering controls : Local exhaust ventilation, vent hoods.

Personal protective equipment : Avoid all unnecessary exposure. Gloves. Safety glasses.

Materials for protective clothing : GIVE GOOD RESISTANCE: butyl rubber. leather. neoprene. polyethylene. PVC.

Hand protection : Insulated gloves.

Eye protection : Safety glasses.

Skin and body protection : Protective clothing.

Respiratory protection : High vapor/gas concentration: self-contained respirator. Maintain oxygen levels above 19.5% in the workplace. Use supplied air respiratory protection if oxygen levels are below 19.5% or during emergency response to a release of this product.Wear appropriate mask.

Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Gas

Appearance :

Liquefied gas.

Molecular mass : 66.05 g/mol

Color : Colorless.

Odor :

Mild odor. Slight Ether-like odor

Odor threshold :

No data available

pH :

No data available

Relative evaporation rate (butyl acetate=1) :

No data available

Melting point :

-117 °C

Freezing point :

No data available

Boiling point :

-25 °C

Flash point :

< -50 °C

Critical temperature :

114 °C

Auto-ignition temperature : 455 °C

Decomposition temperature :

No data available

Flammability (solid, gas) :

No data available

Vapor pressure :

5100 hPa

Vapor pressure at 50 °C :

		11700 hPa
Critical pressure	:	44960 hPa
Relative vapor density at 20 °C	:	2.3
Relative density	:	
		1.0 (-25 °C)
Specific gravity / density	:	
		1004 kg/m³ (-25 °C)
Solubility	:	Poorly soluble in water. Soluble in organic solvents. Water: 0.54 g/100ml (0 °C)
Log Pow	:	
		0.75 (Experimental value)
Log Kow	:	
		No data available
Viscosity, kinematic	:	
		No data available
Viscosity, dynamic	:	
		0.37 Pa.s (-31 °C)
Explosive properties	:	
		No data available
Oxidizing properties	:	
		No data available
Explosive limits	:	
		4 - 19 vol % 112 - 518 g/m³

9.2. Other information

VOC content	:	0 %
Gas group	:	Liquefied gas
Other properties	:	Gas/vapor heavier than air at 20°C. May generate electrostatic charges.

SECTION 10: Stability and reactivity

10.1. Reactivity

On heating/burning: release of toxic and corrosive gases/vapor e.g.: hydrofluoric acid, carbonylfluoride. Reacts violently with (strong) oxidizers.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Open flame. Overheating. Heat. Sparks.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

Toxic fume. . Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

R152A (\f)75-37-6	
LC50 inhalation rat (mg/l)	176 mg/l/4h (Rat; Literature study)
LC50 inhalation rat (ppm)	> 437500 ppm/4h Mortality in 2/6 at 43.75% and 1/6 at 38.3%. At ≥ 17.52% lethargy, laboured breathing, reduced responsiveness to sound were observed. At 6.64% only hyperaemia and shallow breathing were observed.

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified. Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified. Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified. Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified. Based on available data, the classification criteria are not met
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.
Symptoms/injuries after inhalation	: EXPOSURE TO HIGH CONCENTRATIONS: Dizziness. Slight irritation. Headache. Nausea. Vomiting. Coordination disorders. Disturbances of consciousness. Disturbances of heart rate.
Symptoms/injuries after skin contact	: Frostbites.
Symptoms/injuries after eye contact	: No data available.
Symptoms/injuries after ingestion	: Not applicable.
Chronic symptoms	: No effects known.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - air	:Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009). Included in the list of substances which may contribute to the greenhouse effect (Regulation (EC) No 842/2006). TA-LuftKlasse 5.2.5.
Ecology - water	:Mild water pollutant (surface water). No data available on ecotoxicity.

12.2. Persistence and degradability

R152A (75-37-6)

Persistence and degradability	Biodegradability in water: no data available.

12.3. Bioaccumulative potential

R152A (75-37-6)

Log Pow	0.75 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow< 4).

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations	: Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Refer to manufacturer/supplier for information on recovery/ recycling.
Additional information	: LWCA (the Netherlands): KGA category 06. Hazardous waste according to Directive 2008/98/EC.
Ecology - waste materials	: Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

US DOT (ground):	UN1030, 1,1-Difluoroethane, 2.1, Level 1 Aerosol
ICAO/IATA (air):	UN1950, Aerosols, Flammable, 2.1, Limited Quantity
IMO/IMDG (water):	UN1950, Aerosols, Flammable, 2.1, Limited Quantity
Special Provisions:	DOT-SP 11516: In accordance with this special permit, this product is not subject to labeling requirements unless offered for transportation by air. This product is not subject to placarding requirements. Outside packaging must be marked with proper shipping description and 'DOT-SP 11516'

14.2. UN proper shipping name

DOT Proper Shipping Name	:	1,1-Difluoroethane
DOT Special Provisions (49 CFR 172.102)	:	DOT-SP 11516: In accordance with this special permit, this product is not subject to labeling requirements unless offered for transportation by air. This product is not subject to placarding requirements. Outside packaging must be marked with proper shipping description and 'DOT-SP 11516'
DOT Packaging Exceptions (49 CFR 173.xxx)	:	306
DOT Packaging Non Bulk (49 CFR 173.xxx)	:	304
DOT Packaging Bulk (49 CFR 173.xxx)	:	314;315

14.3. Additional information

Other information : No supplementary information available.

Special transport precautions : DOT-SP 11516: In accordance with this special permit, this product is not subject to labeling requirements unless offered for transportation by air. This product is not subject to placarding requirements. Outside packaging must be marked with proper shipping description and 'DOT-SP 11516'.

Overland transport

Class (ADR)	: 2 - Gases
Hazard identification number (Kemler No.)	: 23
Classification code (ADR)	: 2F

Additional Information: TDG Canada: AVW, Inc has been granted Equivelancy Certificate SU 9211 (ren. 1) by the TCSS, TDGD to offer for transportby road, rail and marine.

Air transport

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: Forbidden
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: 150 kg

SECTION 15: Regulatory information

15.1. US Federal regulations

R152A (75-37-6)

SARA Section 311/312 Hazard Classes: Fire hazard
Sudden release of pressure hazard
Immediate (acute) health hazard

15.2. International regulations

CANADA

R152A (75-37-6)

WHMIS Classification: Class A - Compressed Gas
Class B Division 1 - Flammable Aerosol

NEW ZEALAND

HSNO regulation Hazard Class: 2.1.2A

UN1030, 1,1-Difluoroethane, R152A Flammable, Gases that are not otherwise hazardous

EU-Regulations

No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flam. Gas 1 H220 Press.
Gas

Full text of H-phrases: see section 16

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD] F+;
R12

Full text of R-phrases: see section 16

15.2.2. National regulations

No additional information available

15.3. US State regulations

R152A (75-37-6)

State or local regulations	U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List U.S. - Massachusetts - Right To Know List

SECTION 16: Other information

Disclaimer: The information and recommendations contained herein are based upon tests believed to be reliable. However, the manufacturer/distributor of this product does not guarantee their accuracy or completeness NOR SHALL ANY OF THIS INFORMATION CONSTITUTE A WARRANTY, WHETHER EXPRESSED OR IMPLIED, AS TO THE SAFETY OF THE GOODS, THE MERCHANTABILITY OF THE GOODS, OR THE FITNESS OF THE GOODS FOR A PARTICULAR PURPOSE. Adjustment to conform to actual conditions of usage may be required. The manufacturer/distributor assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied.

Safety Data Sheet: **Simple Green® Industrial Cleaner & Degreaser**

Version No. 13000-25A Date of Preparation: 1-July-2025 Supersedes: 4-March-2024 *Prior version no: 13000-24A*

Meets requirements of preparation of safety data sheets for hazardous chemicals code of practice June 2023

Section 1: IDENTIFICATION

Product identifier: Simple Green® Industrial Cleaner & Degreaser
Other means of identification: *Please see section 16*

Recommended use of chemical: Cleaning and degreasing agent for all water safe surfaces.
Restrictions on use of chemical: Do not use on non-rinsable surfaces.

Details of manufacturer or importer:

Simple Green Australia Pty Ltd.
P.O. Box 1253 Golden Grove Village LPO
Golden grove, SA 5125 Australia

Telephone: 1300 826 470
Fax:
Website: simplegreen.com.au
Email: info@simplegreenaustralia.com

Emergency Phone: 1300 8246 470 Available Monday – Friday, 9am – 5pm
13 11 26 Australia Poisons Information Centre, Available 24 hours a day, 7 days a week

Section 2: HAZARD(S) IDENTIFICATION

Classification of the hazardous chemical according to Model Work Health & Safety Regulations (GHS Rev 7):
This product is not classified as hazardous under the Model Work and Health Safety Regulations.

Signal Word: None
Pictogram: None
Hazard Statement: None
Precautionary Statement: None
Other hazards which do not result in classification: None known.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	CAS Number	Percent Range
Water	7732-18-5	> 84.798%*
C9-11 Alcohols Ethoxylated	68439-46-3	< 5.000%*
Sodium Citrate	68-04-2	< 5.000%*
Sodium Carbonate	497-19-8	< 1.000%*
Tetrasodium Glutamate Diacetate	51981-21-6	< 1.000%*
Citric Acid	77-92-9	< 1.000%*
Blend of Polyoxyalkylene Substituted Chromophores (Cyan and Yellow)	Proprietary Mixture	< 1.000%*
Fragrances	Proprietary Mixture	< 1.000%*
Anethole	104-46-1	< 0.100%*
Eucalyptol	470-82-6	< 0.100%*
Methylchloroisothiazolinone, Methylisothiazolinone	55965-84-9	< 0.002%*

**exact percentage of ingredients are commercially confidential*

Section 4: FIRST AID MEASURES

Description of necessary first aid measures

Inhalation: *Immediate and delayed symptoms* - Not expected to cause respiratory irritation. If adverse effect occurs, move to fresh air.

Skin contact: *Immediate and delayed symptoms* - Not expected to cause skin irritation. If adverse effect occurs, rinse skin with water.

Section 4: FIRST AID MEASURES - continued

Eye Contact: *Immediate symptoms* –Not expected to cause eye irritation. If adverse effect occurs Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention. *Delayed symptoms* – Proceed as with immediate symptoms.

Ingestion: *Immediate and delayed symptoms - May* cause upset stomach. Drink plenty of water to dilute. See section 11. For advice, contact a Poisons Information Centre on 13 11 26 (Australia Wide) or a doctor.

First Aid Facilities: Eye wash station or treatment recommended.

Symptoms caused by exposure: No expected acute, delayed or aggravated conditions or symptoms from exposure to mixture.

Medical attention and special treatment: Treat symptomatically. No testing or monitoring for delayed effect required.

Section 5: FIRE FIGHTING MEASURES

Suitable extinguishing equipment: *Suitable for small fires* - Use dry chemical, CO2, water spray or "alcohol" foam.
Suitable for large fires – Use water spray, water fog or alcohol resistant foam. Use equipment/ media appropriate to the surrounding fire conditions.
Unsuitable- High volume jet water.

Specific hazards arising from the chemical: *Formulation is non-flammable, non-combustible and will boil until evaporated.* Fumes of decomposition products may be toxic and irritating.

Special protective equipment and precautions for fire fighters: Keep containers cool with water spray. Firefighters should wear self-contained breathing apparatus and full fire-fighting turn-out gear and eye protection. Deluge with water to cool containers. Evacuate area move upwind of fire.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Eyeglasses/ goggles and gloves recommended to prevent eye contact. Ensure sufficient ventilation. Area should be roped off to prevent slips and falls.

Environmental Precautions: Prevent runoff from entering drains, sewers, surface and ground water.

Methods and materials for containment and cleaning up: Cap or plug leaking containers. Cover all drains. Dike or soak up with inert adsorbent material. Dispose of in appropriate waste containers. See Section 13 for disposal considerations.

Section 7: HANDLING AND STORAGE

Precautions for safe handling: Before use carefully read the product label. Use of safe work practices are recommended to avoid eye contact and spills. Observe good personal hygiene, including washing hands after use and before eating. Remove contaminated clothing and protective equipment before entering eating area. Prohibit eating, drinking and smoking in contaminated area (eg. If container is damaged). Ensure adequate ventilation. Keep out of reach of children. Keep away from heat, sparks, open flame and direct sunlight. Do not pierce any part of the container.

Conditions for safe storage, including any incompatibilities: Store in cool, dry, well-ventilated area, removed from oxidizing agents, acids and foodstuffs. Ensure containers are adequately labeled and protected from physical damage when not in use. Do not store at temperatures above 109^{o}F (42.7^{o}C). If separation occurs, mix the product for reconstitution.

Section 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

Control parameters

Exposure standards: No components listed with TWA or STEL values.

Biological monitoring: Not provided.

Section 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION - continued

Appropriate engineering controls: Use in well ventilated areas and have eyewash stations, eyewash treatments, or showers available.

Personal protective equipment (PPE)

Eye and Face Protection: Safety glasses, goggles or shields recommended.
Skin Protection: Not necessary. PVC or nitrile gloves suggested for individuals prone to dry skin.
Respiratory Protection: Not necessary.
Thermal Hazards: Not applicable.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid	**Upper flammability or explosive limits:**	Not applicable
Colour:	Green	**Lower flammability or explosive limits:**	Not applicable
Odour:	Added sassafras odour	**Autoignition temperature:**	Non-flammable
Melting point:	Not applicable	**Decomposition temperature:**	42°C (109°F)
Freezing point:	0-3.33°C (32-38°F)	**Partition coefficient: n-octanol/water:**	Not determined
Boiling point & range:	101°C (213.8°F)	**Flammability:**	Non-flammable
pH:	8.5 – 9.5	**Flash point:**	>100°C (212°F)
Solubility:	100% in water	**Kinematic viscosity:**	Not determined
Relative density:	1008 – 1029 g/L	**Vapor pressure:**	Not determined
Relative vapor density:	Not determined	**Particle characteristics:**	Not determined
VOCs:	< 5 g/L (< 0.5%) *CARB Method 310 - Water & fragrance exemption in calculation*		

Section 10: STABILITY AND REACTIVITY

Reactivity: Non-reactive.
Chemical stability: Stable under normal conditions 21°C (70°F) and 14.7 psig (760 mmHg).
Possibility of hazardous reactions: Hazardous reactions not likely.
Conditions to avoid: Excessive heat or cold.
Incompatible materials: Do not mix with other chemicals. Mixture will not result in a hazardous reaction, but will reduce product efficacy and increase hazards.
Hazardous decomposition products: None known.

Section 11: TOXICOLOGICAL INFORMATION

Information on Routes of Exposure:

Inhalation - Overexposure may cause headache.
Skin Contact - Not expected to cause irritation, repeated contact may cause dry skin.
Eye Contact - May cause mild eye irritation.
Ingestion - May cause upset stomach.

Early onset symptoms related to exposure: No symptoms expected under typical use conditions.
Delayed health effects from exposure: No symptoms expected under typical use conditions. Overexposure may lead to headache and dry skin.

Numerical Measures of Toxicity

Acute Toxicity: Oral LD_{50} (rat) > 5 g/kg body weight
Dermal LD_{50} (rabbit) > 2 g/kg body weight
Calculated via Globally Harmonized System of Classification and Labelling of Chemicals

Skin Corrosion/Irritation: Non-irritant per Dermal Irritection® assay modeling. No animal testing performed.
Eye Damage/Irritation: Non-irritant per Ocular Irritection® assay modeling. No animal testing performed.

Section 11: TOXICOLOGICAL INFORMATION - continued

Respiratory or skin sensitization: No ingredients trigger or classify under this category.
Germ Cell Mutagenicity: No ingredients trigger or classify under this category.
Carcinogenicity: No ingredients trigger or classify under this category under NTP, IARC or OSHA.
Reproductive Toxicity: No ingredients trigger or classify under this category.
STOT-Single Exposure: No ingredients trigger or classify under this category.
STOT-Repeated Exposure: No ingredients trigger or classify under this category.
Aspiration Hazard: No ingredients trigger or classify under this category.

Exposure levels: No ingredients have recognized exposure levels
Interactive effects*:* Not known.
Data limitations: There are no data limitations when assessing this mixture.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity: Volume of ingredients used does not trigger toxicity classifications under the Globally Harmonized System of Classification and Labelling of Chemicals.
Persistence and Degradability: Readily Biodegradable, OECD 301D
Bioaccumulative Potential: No data available.
Mobility in Soil: No data available.
Other Adverse Effects: No data available.

Section 13: DISPOSAL CONSIDERATIONS

Safe handling and disposal methods
Unused or used liquid: may be considered hazardous in your area depending on usage and tonnage of disposal – check with local council and/or state environmental authority for advice on disposal of chemicals.

Disposal of packaging
Contaminated packaging: may be considered hazardous in your area depending on usage and tonnage of disposal – check with local council and/or state environmental authority for advice on disposal of chemicals.
Empty non-contaminated packaging: may be offered for recycling.

Environmental regulations
Never dispose of used degreasing rinsates into lakes, streams, and open bodies of water or storm drains.

Section 14: TRANSPORT INFORMATION

U.N. Number: Not applicable
U.N. Proper Shipping Name / technical name: Cleaning Compound, Liquid NOI
Transport Hazard Class(es): Not applicable
Packing Group Number: Not applicable
Environmental Hazards for transport purposes: Marine Pollutant - NO
Transport in Bulk (according to Annex II of MARPOL 73/78 and IBC Code): Unknown.

Special precautions which user needs to be aware of/comply with, in connection with transport or conveyance either within or outside their premises: None known.
Additional information: None known.
Hazchem or emergency action code: No Hazchem or action code applies to this mixture.

Section 14: TRANSPORT INFORMATION - continued

AU ADG :	Not classified as Dangerous Good	**ICAO/ IATA:**	Not classified as Hazardous
IMO / IDMG:	Not classified as Hazardous	**ADR/RID:**	Not classified as Hazardous

Section 15: REGULATORY INFORMATION

Is the hazardous chemical subject to

Montreal Protocol (Ozone depleting substances):	No
The Stockholm Convention (Persistent Organic Pollutants):	No
The Rotterdam Convention (Prior Informed Consent):	No
Basel Convention (Hazardous Waste):	No

International Convention for the Prevention of Pollution form Ships (MARPOL): No

AICS: All chemicals listed on the Australian Inventory of Chemical Substances (AICS)
Poison Schedule: A poison schedule number has not been allocated to this product using the criteria in the standard for the Uniform Scheduling of Medicines and Poisons (SUSMP)

Section 16: OTHER INFORMATION

Manufacturer's Part Numbers
SG13005A- 3.78 L
SG13004 - 20 L
SG13034 - 200 L
SG13275 - 1000 L

Prepared / Revised By: Simple Green Australia
This SDS has been revised in the following sections: Section 1,2

DISCLAIMER: The information provided with this SDS is furnished in good faith and without warranty of any kind. Personnel handling this material must make independent determinations of the suitability and completeness of information from all sources to assure proper use and disposal of this material and the safety and health of employees and customers. Sunshine Makers, Inc. assumes no additional liability or responsibility resulting from the use of, or reliance on this information.

1. Product and Company Identification

Product Name: Tub O' Towels® Heavy Duty Cleaning Wipes

Product Codes: TW90, TW40, TW25, TW01, TW125

Recommended Use: Cleaning pre-moisten towels.

Uses Advised Against: None

Manufacturer: FedPro Inc.
4520 Richmond Road
Cleveland, OH 44128

Phone Number: 1-800-846-9300

Emergency Phone Number: Call Chemtrec at 1-800-424-9300

2. Hazards Identification

GHS Classification:

Physical:	Health:
Non-Hazardous	Skin Sensitization Category 1

GHS Label Elements:

Warning!

Statements of Hazard	Precautionary Phrases
H317 May cause an allergic skin reaction	P261 Avoid breathing mist, or vapors. P272 Contaminated work clothing must not be allowed out of the workplace. P280 Wear protective gloves and eye protection. P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P333 + P313 If skin irritation or rash occurs: Get medical attention. P363 Wash contaminated clothing before reuse. P501 Dispose of contents and container in accordance with local and national regulations.

Hazards not otherwise specified: None

3. Composition/Information on Ingredients

Component	CAS Number	Weight %
d-limonene, (R)-p-mentha-1,8-diene	5989-27-5	<5
Glycerin	56-81-5	<2

The specific identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

4. First Aid Measures

Inhalation: If symptoms of exposure develop, remove to fresh air. Seek medical attention if symptoms persist.

Skin Contact: Wash with soap and water. If skin irritation or rash develops, seek medical attention.

Eye Contact: If contact occurs, flush eyes with large quantities of water for several minutes, holding the eyelids apart. If eye irritation persists seek medical attention.

Ingestion: Not an expected route of exposure. Rinse mouth. Seek medical assistance by calling a doctor or poison center. Never give anything by mouth to a person who is unconscious or drowsy.

Most Important Symptoms: May cause eye irritation. May causes mild skin irritation. May cause an allergic skin reaction.

Indication of Immediate Medical Attention/Special Treatment: Immediate medical attention should not be required.

5. Firefighting Measures

Suitable (and Unsuitable) Extinguishing Media: Use any media that is appropriate for the surrounding fire.

Specific Hazards Arising from the Chemical: Wipes will burn under fire conditions after water has evaporated. Burning may release sulfur oxides, and oxides of carbon.

Special Protective Equipment and Precautions for Fire-fighters: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for fires in areas where chemicals are used or stored.

6: Accidental Release Measures

Personal Precautions, Protective Equipment, and Emergency Procedures: Wear appropriate protective clothing and equipment as described in Section 8.

Environmental Precautions: Report spill as required by local and national regulations.

Methods for Containment and Clean-Up: Pick up and place in a suitable container for disposal. Rinse area with water.

7. Handling and Storage

Precautions for Safe Handling: Avoid contact with eyes, skin and clothing. Use with personal protection. Wash hands after use. Wash contaminated clothing after use. Not for personal cleansing.

Conditions for Safe Storage, Including any Incompatibilities: Store in a well ventilated area away from combustible materials. Keep away from strong oxidizers, acids, and bases.

8. Exposure Controls / Personal Protection

Exposure Guidelines:

CHEMICAL	EXPOSURE LIMIT
d-limonene, (R)-p-mentha-1,8-diene	None Established
Glycerin (as mist)	15 mg/m^3 TWA OSHA PEL (total dust) 5 mg/m^3 TWA OSHA PEL (respirable fraction)

Engineering Controls: General ventilation should be adequate for all normal use.

Personal Protective Equipment

Respiratory Protection: None under normal use conditions.

Gloves: Wear impervious gloves.

Eye Protection: None required for normal use. Wear safety glasses or goggles if eye contact is possible.

Other Protective Equipment/Clothing: None required under normal use conditions.

9. Physical and Chemical Properties

Appearance and Odor: Hazy straw colored liquid with a citrus odor on a wipe. No free liquid is present in product.

Physical State: Wipes moistened with a hazy straw colored liquid	**Odor Threshold:** Not available
pH: 6 - 8 (Liquid saturate)	**Specific Gravity:** Not determined
Initial Boiling Point/Range: Not determined	**Vapor Density:** Not determined
Melting/Freezing Point: Not determined	**Percent Volatile:** Not determined
Solubility In Water: Not determined	**Vapor Pressure:** Not determined
Relative Density: 1 (Liquid saturate)	**Evaporation Rate:** Not determined
Viscosity: Not applicable	**VOC Content:** Not determined
Coefficient Of Water/Oil Distribution: Not determined	**Autoignition Temp:** Not determined
Flash Point: Not determined	**Flammability Limits:** LEL: Not determined UEL: Not determined
Decomposition Temperature: Not determined	**Flammability (solid, gas):** Not applicable

10. Stability and Reactivity

Reactivity: Not normally reactive
Chemical Stability: Stable under normal storage and handling conditions.
Possibility of Hazardous Reactions: None known.
Conditions To Avoid: None known.
Incompatible Materials: Acids, bases and strong oxidizing agents.
Hazardous Decomposition Products: May release sulfur oxides, and oxides of carbon.

11. Toxicological Information

POTENTIAL HEALTH EFFECTS:

Acute Hazards:

Inhalation: May cause mild irritation to mucous membranes and upper respiratory tract.

Skin Contact: May cause skin irritation. Contains d-limonene, (R)-p-mentha-1,8-diene which may cause an allergic

skin reaction in sensitive individuals.

Eye Contact: May cause mild eye irritation.

Ingestion: Swallowing may cause gastrointestinal disturbances.

Chronic Effects: None currently known.

Carcinogenicity Listing: None of the components are listed as a carcinogen or potential carcinogen by IARC, NTP, or OSHA.

Acute Toxicity Values:

Calculated ATE for Product: ATE Oral: >2,000 mg/kg
ATE Skin: >5,000 mg/kg

d-limonene, (R)-p-mentha-1,8-diene:
LD50 Oral Rat: >2,000 mg/kg
LD50 Skin Rabbit: >5,000 mg/kg

Glycerin: LD50 Oral Rat: >2,000 mg/kg
LD50 Skin Rabbit: >5,000 mg/kg

12. Ecological Information

Ecotoxicity: Product is expected to be harmful to aquatic life with long lasting effects.

d-limonene, (R)-p-mentha-1,8-diene:
LC50 Pimephales promelas 688 ug/l/96 hr.
EC50 Daphnia magna 0.307 mg /l/48 hr.

Glycerin: LC50 Oncorhynchus mykiss 54,000 mg/l/96 hr.
EC50 Daphnia magna 1,955 mg /l/48 hr.

Persistence and Degradability:

d-limonene, (R)-p-mentha-1,8-diene:	Readily biodegradable
Glycerin:	Readily biodegradable

Bio accumulative Potential:

d-limonene, (R)-p-mentha-1,8-diene:	BCF: 864.8 l/kg
Glycerin:	No Bio-accumulation.

Mobility in Soil: No data available

Other Adverse Effects: None.

13. Disposal Considerations

Dispose of in accordance with all local, state, and federal regulations. Offer empty containers for recycling.

14. Transport Information

DOT Hazardous Materials Description: Not Regulated

IATA Dangerous Goods Description: Not Regulated

IMDG Dangerous Goods Description: Not Regulated

15. Regulatory Information

United States:

EPA TSCA INVENTORY: All of the components of this material are listed on the Toxic Substances Control Act (TSCA) Chemical Substances Inventory.

CERCLA Section 103: This product has no RQ. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

SARA Hazard Category (311/312): Classified under OSHA Hazcom 2012 GHS as per Section 2 of this SDS.

SARA 313: This product contains the following chemicals subject to Annual Release Reporting Requirements under SARA Title III, Section 313 (40 CFR 372): None

State Regulation:

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65): This product does not require a California Proposition 65 warning.

16. Other Information

SDS Date of Preparation: 10/27/2022

SAFETY DATA SHEET
Resinoid Bonded Abrasives
For Cutting and Grinding Metal
SDS #1

1. IDENTIFICATION

Product Identity / Trade Name: Grinding and Cutting Wheels, Resinoid (Type 1, Type 27, Type 28, Type 29), Cup Wheels (Type 11) Cones and Plugs (Type 16, Type 17 and Type 18), Mounted Point.

Product Use: Abrasive materials used for cutting and grinding metals.
Restriction on Use: Use only as directed

Manufacturer: United Abrasives, Inc.
185 Boston Post Road
North Windham, CT 06256

Internet: www.unitedabrasives.com

Information Phone: (860) 456-7131 **Emergency Phone**: (860) 456-7131

Date of Preparation: February 4, 2021

2. HAZARD(S) IDENTIFICATION

Classification: This product is not classified as hazardous in accordance with the OSHA Hazard Communication Standard (29CFR 1910.1200).

Label Elements:
None required.

Hazards not otherwise classified: Most of the dust/fumes generated in the cutting and grinding process is from the base material. The exposure to the dust/fumes from the material the potential hazard from this exposure must be evaluated.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical name	CAS No.	Concentration
Aluminum Oxide	1344-28-1	0-95%
Zirconium Oxide	1314-23-4	0-80%
Cured Phenolic Resin	N/A	1-30%
Nitrile Compounds	N/A	1-20%
Fluoride Compounds	N/A	1-20%
Iron Pyrite	12068-85-8	0-20%
Woven Fiberglass	N/A	0-15%
Calcium Compounds	N/A	0-15%
Sulfur	7704-34-9	0-15%
Calcium Oxide	1305-78-8	1-10%
Cryolite	15096-52-3	1-10%
Cured Epoxy Resin	N/A	1-10%
Calcium Carbonate	1317-65-3	0-5%
Iron Oxide	1309-37-1	0-5%

Graphite	7782-42-5	0-5%
Aluminum Potassium Fluoride	14484-69-6	0-0.5%
Potassium Fluoroborate	14075-53-7	0.1-0.5%
Titanium Dioxide	13463-67-7	0.1-0.5%

The specific identity and/or exact percentage has been withheld as a trade secret.

4. FIRST-AID MEASURES

Ingestion: If grinding dust is swallowed, seek medical attention.
Inhalation: If overexposed to grinding dust, remove victim to fresh air and get medical attention.
Eye Contact: Do not rub eyes. Flush eyes thoroughly with water, holding open eyelids. Get medical attention if irritation persists. Obtain immediate medical attention for foreign body in the eye.
Skin Contact: Wash dust from skin with soap and water. Launder contaminated clothing before reuse.

Most important symptoms/effects, acute and delayed: May cause mechanical eye and skin irritation. Inhalation of dust may cause nose, throat and upper respiratory tract irritation. Prolonged inhalation of high concentration of dust may cause adverse effects on the lungs. Prolonged overexposure may cause damage to the respiratory tract, bones and teeth by inhalation.

Indication of immediate medical attention and special treatment, if necessary: Immediate medical attention is not required.

5. FIRE-FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media: Use any media that is appropriate for the surrounding fire.

Specific hazards arising from the chemical: This product is not combustible, however, consideration must be given to the potential fire or explosion hazards from the base material being processed. Many materials create flammable or explosive dusts or turnings when machined or ground.

Special protective equipment and precautions for fire-fighters: Firefighters should wear full emergency equipment and NIOSH approved positive pressure self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures: Wear appropriate respirator and protective clothing as needed to avoid eye contact and inhalation of dust.

Environmental precautions: Avoid release into the environmental. Report releases as required by local, state and federal authorities.

Methods and materials for containment and cleaning up: Pick up, sweep up or vacuum and place in a container for disposal. Minimize generation of dust.

7. HANDLING AND STORAGE

Precautions for safe handling: Use only with adequate ventilation. Avoid breathing dust. Wash thoroughly after handling and use, especially before eating, drinking or smoking. Refer to ANSI B7.1, Safety Requirements for the

Use, Care and Protection of Abrasive Wheels for additional information. Consider potential exposure to components of the base materials or coatings being ground. Refer to OSHA's substance specific standards for additional work practice requirements where applicable.

Conditions for safe storage, including any incompatibilities: Store in accordance with ANSI B7.1. Protect abrasive wheels from damage.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure guidelines:

Aluminum Oxide	1 mg/m3 ACGIH TLV (respirable fraction) (as Al metal) 15 mg/m3 TWA OSHA PEL (total dust) 5 mg/m3 TWA OSHA PEL (respirable fraction)
Zirconium Oxide (as zirconium compounds)	5 mg/m3 TWA, 10 mg/m3 STEL ACGIH TLV 5 mg/m3 TWA OSHA PEL
Cured Phenolic Resin	None Established
Nitrile Compounds	None Established
Fluoride Compounds	2.5 mg/m3 TWA ACGIH TLV 2.5 mg/m3 TWA OSHA PEL
Iron Pyrite	None Established
Woven Fiberglass	5 mg/m3 TWA ACGIH TLV (inhalable) 1 f/cc TWA ACGIH TLV (respirable)
Calcium Compounds	None Established
Sulfur	None Established
Calcium Oxide	2 mg/m3 TWA ACGIH TLV 5 mg/m3 TWA OSHA PEL
Cryolite (as fluorides)	2.5 mg/m3 TWA ACGIH TLV 2.5 mg/m3 TWA OSHA PEL
Cured epoxy resin	None Established
Calcium Carbonate	15 mg/m3 TWA OSHA PEL (total dust) 5 mg/m3 TWA OSHA PEL (respirable fraction)
Iron Oxide	5 mg/m3 TWA ACGIH TLV (respirable fraction) 10 mg/m3 TWA OSHA PEL (fume)
Graphite	2 mg/m3 TWA ACGIH TLV (respirable fraction) 15 mppcf mg/m3 TWA OSHA PEL
Aluminum Potassium Fluoride (as Al metal)	1 mg/m3 ACGIH TLV (respirable fraction) (as Al metal) 15 mg/m3 TWA OSHA PEL (total dust) 5 mg/m3 TWA OSHA PEL (respirable fraction)
Aluminum Potassium Fluoride (as fluorides)	2.5 mg/m3 TWA ACGIH TLV 2.5 mg/m3 TWA OSHA PEL
Potassium Fluoroborate (as fluorides)	2.5 mg/m3 TWA ACGIH TLV 2.5 mg/m3 TWA OSHA PEL
Titanium Dioxide	10 mg/m3 TWA ACGIH TLV 15 mg/m3 TWA OSHA PEL (total dust)

Note: Consider also components of base materials and coatings being ground.

Appropriate engineering controls: Use local exhaust or general ventilation as required to minimize exposure to dust and maintain the concentration of contaminants below occupational exposure limits.

Individual protection measures, such as personal protective equipment:
Respiratory protection: Use NIOSH approved respirator if exposure limits are exceeded or where dust exposures are excessive. Consider the potential for exposure to components of the coatings or base material being ground in selecting proper respiratory protection. Refer to OSHA's specific standards for lead, cadmium, etc. where appropriate. Selection of respiratory protection depends on the contaminant type, form and concentration. Select and use respirators in accordance with OSHA 1910.134 and good industrial hygiene practice.
Skin protection: Cloth or leather gloves recommended.
Eye protection: Safety goggles or face shield over safety glasses with side shields.
Other: Protective clothing as needed to prevent contamination of personal clothing. Hearing protection may be required.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.): Black, brown or reddish colored solid wheel.
Odor: No Odor

Odor threshold: Not applicable	**pH:** Not applicable
Melting point/freezing point: Not applicable	**Boiling Point:** Not applicable
Flash point: Not applicable	**Evaporation rate:** Not applicable
Flammability (solid, gas): Not combustible	
Flammable limits: LEL: Not applicable	**UEL:** Not applicable
Vapor pressure: Not applicable	**Vapor density:**
Relative density: Not applicable	**Solubility(ies):** Not soluble
Partition coefficient: n-octanol/water: Not applicable	**Auto-ignition temperature:** Not applicable
Decomposition temperature: Not applicable	**Viscosity:** Not applicable

10. STABILITY AND REACTIVITY

Reactivity: Not reactive.
Chemical stability: Stable.
Possibility of hazardous reactions: None known.
Conditions to avoid: None known.
Incompatible materials: None known.
Hazardous decomposition products: Dust from grinding could contain ingredients listed in Section 3 and other, potentially more hazardous components of the base material being ground or coatings applied to the base material.

11. TOXICOLOGICAL INFORMATION

Routes of exposure:
Inhalation: Dust may cause respiratory irritation.
Ingestion: None expected under normal use conditions. Swallowing large pieces may cause obstruction of the gastrointestinal tract.
Skin contact: None expected under normal use conditions. Rubbing product across the skin may cause mechanical irritation or abrasions.

Eye contact: Dust may cause mechanical irritation.

Chronic effects from short- and long-term exposure: Long-term overexposure to respirable dust may cause lung damage (fibrosis) with symptoms of coughing, shortness of breath and diminished breathing capacity. Chronic effects may be aggravated by smoking. Prolonged overexposure to fluorides may cause a bone condition, fluorosis. Prolonged exposure to elevated noise levels during operations may affect hearing. A greater hazard, in most cases, is the exposure to the dust/fumes from the material or paint/coatings being ground. Most of the dust generated during grinding is from the base material being ground and the potential hazard from this exposure must be evaluated.

Carcinogenicity: Titanium Dioxide is listed by IARC as a group 2B Carcinogen (suspected human carcinogen). None of the other components is listed as a carcinogen or potential carcinogen by OSHA, NTP or IARC.

Additional Information: This SDS is applicable to product from United Abrasives only. The material being processed must be evaluated to determine any potential hazard.

This product contains titanium dioxide which has caused cancer in rats after high level exposure and inhalation. No exposure to titanium dioxide has been detected through air sampling during tests to simulate use. Thus, there are no health effects associated with titanium dioxide during the normal use of this product.

Numerical measures of toxicity:
Aluminum Oxide: LD50 Oral rat >5,000 mg/kg
Zirconium Oxide: Oral rat LD50 >5000 mg/kg
Iron Pyrite: No toxicity data available
Sulfur: Oral rat LD50 >2000 mg/kg, Inhalation rat LC50 >5.43 mg/L/4 hr, Dermal rat LD50 >200 mg/L
Calcium Oxide: Oral rat LD50 >7340 mg/kg
Cryolite: LD50 Oral rat >5,000 mg/kg
Titanium Dioxide: LD50 Oral rat >5,000 mg/kg, Inhalation rat LC50 >6.82 mg/L/4 hr
Calcium Carbonate: No toxicity data available
Iron Oxide: LD50 oral rat > 10000 mg/kg
Graphite: LD50 oral rat > 2000 mg/kg, LC50 inhalation rat > 2 mg/L
Aluminum Potassium fluoride: LD50 oral rat 2150 mg/kg, LC50 inhalation rat > 3.4 mg/L, LD50 dermal rabbit > 2000 mg/kg.
Potassium Fluoroborate: LD50 oral rat > 2000 mg/kg, LC50 inhalation rat > 5.3 mg/L
Titanium Dioxide: LD50 Oral rat >5,000 mg/kg, Inhalation rat LC50 >6.82 mg/L/4 hr

12. ECOLOGICAL INFORMATION

Ecotoxicity:
Aluminum Oxide: 96 hr LC50 Pimephales promelas 35 mg/L
Zirconium Oxide: 96 hr LC50 Danio rerio >100 mg/L, 48 hr EC50 daphnia magna >100 mg/L
Iron Pyrite: No data available
Sulfur: 96 hr LC50 Oncorhynchus mykiss > 5 µg/L (solubility limit of sulfur), 48 hr EC50 daphnia magna > 5 µg/L (solubility limit of sulfur)
Calcium oxide: 96 hr LC50 Cyprinus carpio >1070 mg/L
Cryolite: No data available
Calcium Carbonate: No data available
Iron Oxide: No data available
Graphite: Danio rerio LC50 > 100 mg/L/96hr
Aluminum Potassium fluoride: Brachydanio rerio LC50 > 10 mg/L/96h

Potassium Fluoroborate: Leuciscus idus LC50: 760 mg/L/96hr
Titanium Dioxide: 48 hr EC50 daphnia magna >500 mg/L

Persistence and degradability: Biodegradation is not applicable to inorganic compounds.
Bioaccumulative potential: No data available
Mobility in soil: No data available.
Other adverse effects: No hazards to the environment are expected from this product. However, consideration must be given to potential environment effects of the base material being processed.

13. DISPOSAL CONSIDERATIONS

Dispose in accordance with all applicable local, state/provincial and federal regulations. Local regulations may be more stringent than regional and national requirements. It is the responsibility of the waste generator to determine the toxicity and physical characteristics of the material to determine the proper waste identification and disposal in compliance with applicable regulations.

14. TRANSPORT INFORMATION

	UN Number	Proper shipping name	Hazard Class	Packing Group	Environmental Hazard
DOT	None	Not Regulated	None	None	
TDG	None	Not Regulated	None	None	

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Not applicable – product is transported only in packaged form.

Special precautions: None identified.

15. REGULATORY INFORMATION

SARA Section 311/312 Hazard Categories: Not Applicable (manufactured articles)

SARA Section 313: This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372 (Toxic Chemical Release Reporting): None

California Proposition 65: WARNING! You create dust when you cut, sand, drill or grind materials such as wood, paint, cement, masonry or metal. This dust often contains chemicals known to cause cancer, birth defects or other reproductive harm.

Canadian Regulations:

Canadian Environmental Protection Act: All of the ingredients are listed on the Canadian Domestic Substances List, Canadian Non-Domestic Substances List, or exempt from notification.

16. OTHER INFORMATION

NFPA Rating: Health = 1 Flammability = 0 Instability = 0
HMIS Rating: Health = 1 Flammability = 0 Physical Hazard =0

Date Previous Revision: 2/15/17
Date This Revision: 2/4/21
Revision Summary: 3 yr review. Updated Section 8 and 15.

The preceding information is believed to be correct and current as of the date of preparation of this Material Safety Data Sheet. Since the use of this information and the conditions of use of this product are not within the control of United Abrasives, Inc., it is the user's obligation to assure safe use of this product.

SAFETY DATA SHEET

US OSHA Hazard Communication Standard (29 CFR 1910.1200) and Canada WHMIS 2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous Products Regulation (HPR)

Issuing Date 21-Sep-2018 **Revision Date** 03-Jul-2024 **Revision Number** 3

1. Identification

Product identifier

Product Name 100P Industrial Paint Marker/100P FL/ 130P Broad Tip Industrial Paint Marker Most Colors

Other means of identification

Product Code(s) **100P:** 10201 Black, 10202 Blue, 10203 Green, 10204 Red, 10205 White,10206 Yellow, 10207 Orange, 10209 Bright Green, 10211 Pink, 10212 Violet, 10213 Light Blue, 10215 Brown **100P Fine Line:** 10201FL Black, 10202FL Blue, 10203FL Green, 10204FL Red, 10205FL White, 10206FL Yellow, 10207FL Orange, 10209FL Bright Green, 10211FL Pink, 10212FL Violet, 10213FL Light Blue, 10215FL Brown **130P:** 13001 Black, 13002 Blue, 13003 Green, 13004 Red, 13005 White, 13006 Yellow, 13007 Orange, 13008 Light Blue, 13009 Bright Green13011 Pink, 13012 Violet, 13015 Brown

UN/ID no UN1210

Synonyms 100P/100PFL/130P

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended use Industrial Markers

Restrictions on use Keep away from children. Not to be used for skin.

Details of the supplier of the safety data sheet

Supplier Address
U-Mark, Inc
102 Iowa Ave.
Belleville, IL 62220
TEL: 618-235-7500

Emergency telephone number

Emergency telephone 24-hour Emergency Phone: Infotrac 1-800-535-5053 (USA & Canada), 1-352-323-3500 (International)

2. Hazard(s) identification

Classification

Acute toxicity - Inhalation (Vapors)	Category 4
Serious eye damage/eye irritation	Category 2A
Specific target organ toxicity (single exposure)	Category 3
Flammable liquids	Category 3

Label elements

Warning

Hazard statements
Flammable liquid and vapor.
Harmful if inhaled.
Causes serious eye irritation.
May cause drowsiness or dizziness.

Precautionary Statements - Prevention
Avoid breathing dust, fume, gas, mist, vapors and spray. Use only outdoors or in a well-ventilated area. Wash face, hands and any exposed skin thoroughly after handling. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container closed. Ground and bond container and receiving equipment. Wear protective gloves/protective clothing. Use only non-sparking tools. Take action to prevent static discharges. Wear protective gloves, eye protection and face protection. Keep cool.
Precautionary Statements - Response

Eyes
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice and attention.
Skin
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water and then shower.
Inhalation
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a doctor if you feel unwell.
Fire
In case of fire: Use dry chemical, CO2, water spray or alcohol-resistant foam to extinguish.
Precautionary Statements - Storage
Store in a well-ventilated place. Keep container tightly closed. Store locked up.
Precautionary Statements - Disposal
Dispose of contents and container to an approved waste disposal plant.

Other information
Harmful to aquatic life.

3. Composition/information on ingredients

Substance

Not applicable.

Mixture

Synonyms 100P/130P.

Chemical name	CAS No	Weight-%	Hazardous Material Information Review Act registry number (HMIRA registry #)	Date HMIRA filed and date exemption granted (if applicable)
Ethyl acetate	141-78-6	30-48	-	-

Propylene glycol monomethyl ether acetate	108-65-6	14.24-33.24	-	-
Titanium dioxide	13463-67-7	1.8-25.2	-	-
Non Hazardous Component	_	8.6	-	-
Carbon black	1333-86-4	0.5-7	-	-
Iron oxide	1309-37-1	6.5	-	-
3H-Pyrazol-3-one, 4,4`-[(3,3`-dichloro[1,1`-biphenyl]-4,4`-diyl)bis(azo)] bis[2,4-dihydro-5-methyl-2-phenyl-	3520-72-7	0-5	-	-
4,4'-[(3,3'-dichloro[1,1'-biphenyl]-4,4'-diyl)bis(azo)]bis[2,4-dihydro-5-methyl-2-(p-tolyl)-3H-pyrazol-3-one]	15793-73-4	1-5	-	-
C.I. Pigment Blue 15	147-14-8	2	-	-
Silicon dioxide	7631-86-9	1.02-1.68	-	-
Aluminum hydroxide	21645-51-2	1.12	-	-
Butanamide, 2,2`-[(3,3`-dichloro[1,1`-biphenyl]-4,4`-diyl	5468-75-7	0-0.5	-	-
Copper	7440-50-8	0.22	-	-
Xylene	1330-20-7	0.2	-	-
Quartz	14808-60-7	0.12	-	-

4. First-aid measures

Description of first aid measures

General advice Under normal conditions of use first aid is not required. Show this safety data sheet to the doctor in attendance.

Inhalation If experiencing respiratory symptoms: Call a POISON CENTER or doctor. Remove to fresh air. IF exposed or concerned: Get medical advice/attention. If symptoms persist, call a physician. If breathing has stopped, give artificial respiration. Get medical attention immediately.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Skin contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

Ingestion Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Get medical attention.

Self-protection of the first aider Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Avoid breathing vapors or mists.

Most important symptoms and effects, both acute and delayed

Symptoms May cause redness and tearing of the eyes. Burning sensation. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting. Coughing and/ or wheezing. Difficulty in breathing.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. Fire-fighting measures

Suitable Extinguishing Media	Dry chemical. Carbon dioxide (CO2). Water spray. Alcohol resistant foam.
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	The ink contained in this product is flammable but not readily ignited. Risk of ignition. Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
Explosion data	
Sensitivity to mechanical impact	None.
Sensitivity to static discharge	Yes.
Special protective equipment and precautions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions	Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Avoid breathing vapors or mists.
Other information	Ventilate the area. Refer to protective measures listed in Sections 7 and 8.

Methods and material for containment and cleaning up

Methods for containment	Stop leak if you can do it without risk. Do not touch or walk through spilled material. A vapor suppressing foam may be used to reduce vapors. Dike far ahead of spill to collect runoff water. Keep out of drains, sewers, ditches and waterways. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.
Methods for cleaning up	Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

7. Handling and storage

Precautions for safe handling

Advice on safe handling	Use personal protection equipment. Avoid breathing vapors or mists. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use grounding and bonding connection when transferring this material to prevent static discharge, fire or explosion. Use with local exhaust ventilation. Use spark-proof tools and explosion-proof equipment. Keep in an area equipped with sprinklers. Use according to package label instructions. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. In case of insufficient ventilation, wear suitable respiratory equipment.

Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Do not store near combustible materials. Keep in an area equipped with sprinklers. Store in accordance with the particular national regulations. Store in accordance with local regulations. Keep out of the reach of children.

8. Exposure controls/personal protection

Control parameters

Exposure Limits

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
Ethyl acetate 141-78-6	TWA: 400 ppm	TWA: 400 ppm TWA: 1400 mg/m³ (vacated) TWA: 400 ppm (vacated) TWA: 1400 mg/m³	IDLH: 2000 ppm TWA: 400 ppm TWA: 1400 mg/m³
Titanium dioxide 13463-67-7	TWA: 0.2 mg/m³ nanoscale respirable particulate matter TWA: 2.5 mg/m³ finescale respirable particulate matter	TWA: 15 mg/m³ total dust (vacated) TWA: 10 mg/m³ total dust	IDLH: 5000 mg/m³ TWA: 2.4 mg/m³ CIB 63 fine TWA: 0.3 mg/m³ CIB 63 ultrafine, including engineered nanoscale
Carbon black 1333-86-4	TWA: 3 mg/m³ inhalable particulate matter	TWA: 3.5 mg/m³ (vacated) TWA: 3.5 mg/m³	IDLH: 1750 mg/m³ TWA: 3.5 mg/m³ TWA: 0.1 mg/m³ Carbon black in presence of Polycyclic aromatic hydrocarbons PAH
Iron oxide 1309-37-1	TWA: 5 mg/m³ respirable particulate matter	TWA: 10 mg/m³ fume TWA: 15 mg/m³ total dust TWA: 5 mg/m³ respirable fraction (vacated) TWA: 10 mg/m³ fume and total dust Iron oxide (vacated) TWA: 5 mg/m³ respirable fraction regulated under Rouge	IDLH: 2500 mg/m³ Fe dust and fume TWA: 5 mg/m³ Fe dust and fume
C.I. Pigment Blue 15 147-14-8	TWA: 1 mg/m³ Cu dust and mist	-	IDLH: 100 mg/m³ Cu dust and mist TWA: 1 mg/m³ Cu dust and mist
Silicon dioxide 7631-86-9	-	-	IDLH: 3000 mg/m³ TWA: 6 mg/m³
Aluminum hydroxide 21645-51-2	TWA: 1 mg/m³ respirable particulate matter	-	-
Copper 7440-50-8	TWA: 0.2 mg/m³ fume	TWA: 0.1 mg/m³ fume TWA: 1 mg/m³ dust and mist (vacated) TWA: 0.1 mg/m³ Cu dust, fume, mist	IDLH: 100 mg/m³ dust, fume and mist TWA: 1 mg/m³ dust and mist TWA: 0.1 mg/m³ fume
Xylene 1330-20-7	TWA: 20 ppm	TWA: 100 ppm TWA: 435 mg/m³ (vacated) TWA: 100 ppm (vacated) TWA: 435 mg/m³ (vacated) STEL: 150 ppm (vacated) STEL: 655 mg/m³	-
Quartz 14808-60-7	TWA: 0.025 mg/m³ respirable particulate matter	TWA: 50 µg/m³ (vacated) TWA: 0.1 mg/m³ respirable dust : (250)/(%SiO2 + 5) mppcf TWA respirable fraction : (10)/(%SiO2 + 2) mg/m ³ TWA respirable fraction	IDLH: 50 mg/m³ respirable dust TWA: 0.05 mg/m³ respirable dust

Chemical name	Alberta	British Columbia	Ontario	Quebec
Ethyl acetate 141-78-6	TWA: 400 ppm TWA: 1440 mg/m³	TWA: 150 ppm	TWA: 400 ppm	TWA: 400 ppm TWA: 1440 mg/m³
Propylene glycol monomethyl ether acetate	-	TWA: 50 ppm STEL: 75 ppm	TWA: 50 ppm TWA: 270 mg/m³	-

108-65-6				
Titanium dioxide 13463-67-7	TWA: 10 mg/m³	TWA: 10 mg/m³ TWA: 3 mg/m³	TWA: 10 mg/m³	TWA: 10 mg/m³
Carbon black 1333-86-4	TWA: 3.5 mg/m³	TWA: 3 mg/m³	TWA: 3 mg/m³	TWA: 3 mg/m³
Iron oxide 1309-37-1	TWA: 5 mg/m³	TWA: 10 mg/m³ TWA: 3 mg/m³ TWA: 5 mg/m³ STEL: 10 mg/m³	TWA: 5 mg/m³	TWA: 5 mg/m³
Aluminum hydroxide 21645-51-2	-	TWA: 1.0 mg/m³	TWA: 1 mg/m³	-
Copper 7440-50-8	TWA: 0.2 mg/m³ TWA: 1 mg/m³	TWA: 1 mg/m³ TWA: 0.2 mg/m³	TWA: 0.2 mg/m³ TWA: 1 mg/m³	TWA: 0.2 mg/m³ TWA: 1 mg/m³
Xylene 1330-20-7	TWA: 100 ppm TWA: 434 mg/m³ STEL: 150 ppm STEL: 651 mg/m³	TWA: 100 ppm STEL: 150 ppm	TWA: 100 ppm STEL: 150 ppm	TWA: 100 ppm TWA: 434 mg/m³ STEL: 150 ppm STEL: 651 mg/m³
Quartz 14808-60-7	TWA: 0.025 mg/m³	TWA: 0.025 mg/m³	TWA: 0.10 mg/m³	TWA: 0.1 mg/m³

Biological occupational exposure limits

Chemical name	ACGIH
Xylene 1330-20-7	1.5 g/g creatinine - urine (Methylhippuric acids) - end of shift

Appropriate engineering controls

Engineering controls Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection Tight sealing safety goggles.

Hand protection Wear suitable gloves. Impervious gloves.

Skin and body protection Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron. Antistatic boots.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

General hygiene considerations Do not eat, drink or smoke when using this product. Contaminated work. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance colored, opaque liquid
Physical state Liquid
Color Varies
Odor Hydrocarbon-like
Odor threshold No information available

Property	Values	Remarks • Method
pH		No data available
Melting point / freezing point		No data available
Initial boiling point and boiling range	119 - 207 °C / 246.2 - 404.6 °F	(Liquid Ink)
Flash point	< 15 °C / < 59 °F	(Liquid Ink)
Evaporation rate		No data available
Flammability		No data available
Flammability Limit in Air		
Upper flammability or explosive limits	7%	
Lower flammability or explosive limits	1%	
Vapor pressure	0.67 - 0.93 kPa (5 - 7 mmHg)	
Vapor density	> 1	(air = 1)
Relative density	0.9	
Water solubility	Insoluble in water	
Solubility(ies)		No data available
Partition coefficient		No data available
Autoignition temperature		No data available
Decomposition temperature		No data available
Kinematic viscosity		No data available
Dynamic viscosity		No data available

Other information	
Explosive properties	No information available.
Oxidizing properties	No information available.
Softening point	No information available
Molecular weight	No information available
VOC content	40-65
Liquid Density	No information available
Bulk density	No information available

10. Stability and reactivity

Reactivity None under normal use conditions.

Chemical stability Stable under normal conditions.

Possibility of hazardous reactions None under normal processing.

Conditions to avoid Heat, flames and sparks. Excessive heat.

Incompatible materials None known based on information supplied.

Hazardous decomposition products None known based on information supplied.

11. Toxicological information

Information on likely routes of exposure

Product Information

Inhalation Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract. May cause drowsiness or dizziness. Harmful by inhalation. (based on components).

Eye contact Specific test data for the substance or mixture is not available. Causes serious eye irritation. (based on components). May cause redness, itching, and pain.

Skin contact Specific test data for the substance or mixture is not available. May cause irritation.

Prolonged contact may cause redness and irritation.

Ingestion Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms May cause redness and tearing of the eyes. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting. Coughing and/ or wheezing.

Acute toxicity

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document:
ATEmix (dermal) 13,386.70 mg/kg

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Ethyl acetate	= 5620 mg/kg (Rat)	> 18000 mg/kg (Rabbit)	= 4000 ppm (Rat) 4 h
Propylene glycol monomethyl ether acetate	= 8532 mg/kg (Rat)	> 5 g/kg (Rabbit)	= 16000 mg/m³ (Rat) 6 h
Titanium dioxide	> 10000 mg/kg (Rat)	-	= 5.09 mg/L (Rat) 4 h
Carbon black	> 15400 mg/kg (Rat)	-	> 4.6 mg/m³ (Rat) 4 h
Iron oxide	> 10000 mg/kg (Rat)	-	-
3H-Pyrazol-3-one, 4,4`-[(3,3`-dichloro[1,1`-biphenyl]-4,4`-diyl)bis(azo)]bis[2,4-dihydro-5-methyl-2-phenyl-	> 5 g/kg (Rat)	> 2000 mg/kg (Rat)	-
4,4'-[(3,3'-dichloro[1,1'-biphenyl]-4,4'-diyl)bis(azo)]bis[2,4-dihydro-5-methyl-2-(p-tolyl)-3H-pyrazol-3-one]	-	> 2000 mg/kg (Rat)	-
C.I. Pigment Blue 15	> 10000 mg/kg (Rat)	> 5000 mg/kg (Rat)	-
Silicon dioxide	= 7900 mg/kg (Rat)	> 5000 mg/kg (Rabbit)	> 58.8 mg/L (Rat) 4 h
Aluminum hydroxide	> 5000 mg/kg (Rat)	-	-
Butanamide, 2,2`-[(3,3`-dichloro[1,1`-biphenyl]-4,4`-diyl	> 5 g/kg (Rat)	-	> 230 mg/m³ (Rat) 4 h
Copper	-	-	> 5.11 mg/L (Rat) 4 h
Xylene	= 3500 mg/kg (Rat)	> 4350 mg/kg (Rabbit)	= 29.08 mg/L (Rat) 4 h

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation May cause skin irritation.

Serious eye damage/eye irritation Classification based on data available for ingredients. Causes serious eye irritation.

Respiratory or skin sensitization No information available.

Germ cell mutagenicity No information available.

Carcinogenicity This product contains titanium dioxide in a non-respirable form. Inhalation of titanium dioxide is unlikely to occur from exposure to this product. This product contains carbon black in a non-respirable form. Inhalation of carbon black is unlikely to occur from exposure to this product. This product contains crystalline silica (quartz) in a non-respirable form. Inhalation of crystalline silica is unlikely to occur from exposure to this product.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	ACGIH	IARC	NTP	OSHA
Titanium dioxide 13463-67-7	A3	Group 2B	-	X
Carbon black 1333-86-4	A3	Group 2B	-	X
Iron oxide 1309-37-1	-	Group 3	-	-
Silicon dioxide 7631-86-9	-	Group 3	-	-
Xylene 1330-20-7	-	Group 3	-	-
Quartz 14808-60-7	A2	Group 1	Known	X

Legend

ACGIH (American Conference of Governmental Industrial Hygienists)
A2 - Suspected Human Carcinogen
A3 - Animal Carcinogen
IARC (International Agency for Research on Cancer)
Group 1 - Carcinogenic to Humans
Group 2B - Possibly Carcinogenic to Humans
Group 3 - Not Classifiable as to Carcinogenicity in Humans
NTP (National Toxicology Program)
Known - Known Carcinogen
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
X - Present

Reproductive toxicity No information available.

STOT - single exposure May cause drowsiness or dizziness. May cause respiratory irritation.

STOT - repeated exposure No information available.

Target organ effects Liver. Kidney. Respiratory system. Eyes. Skin. Central nervous system. Lungs. Lymphatic System.

Aspiration hazard No information available.

12. Ecological information

Ecotoxicity Harmful to aquatic life.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Ethyl acetate 141-78-6	-	LC50: 220 - 250mg/L (96h, Pimephales promelas) LC50: =484mg/L (96h, Oncorhynchus mykiss) LC50: 352 - 500mg/L (96h, Oncorhynchus	-	EC50: =560mg/L (48h, Daphnia magna)

		mykiss)		
Propylene glycol monomethyl ether acetate 108-65-6	-	LC50: =161mg/L (96h, Pimephales promelas)	-	EC50: >500mg/L (48h, Daphnia magna)
Iron oxide 1309-37-1	-	LC50: =100000mg/L (96h, Danio rerio)	-	-
Silicon dioxide 7631-86-9	EC50: =440mg/L (72h, Pseudokirchneriella subcapitata)	LC50: =5000mg/L (96h, Brachydanio rerio)	-	EC50: =7600mg/L (48h, Ceriodaphnia dubia)
Copper 7440-50-8	EC50: 0.0426 - 0.0535mg/L (72h, Pseudokirchneriella subcapitata) EC50: 0.031 - 0.054mg/L (96h, Pseudokirchneriella subcapitata)	LC50: 0.0068 - 0.0156mg/L (96h, Pimephales promelas) LC50: <0.3mg/L (96h, Pimephales promelas) LC50: =0.2mg/L (96h, Pimephales promelas) LC50: =0.052mg/L (96h, Oncorhynchus mykiss) LC50: =1.25mg/L (96h, Lepomis macrochirus) LC50: =0.3mg/L (96h, Cyprinus carpio) LC50: =0.8mg/L (96h, Cyprinus carpio) LC50: =0.112mg/L (96h, Poecilia reticulata)	-	EC50: =0.03mg/L (48h, Daphnia magna)
Xylene 1330-20-7	-	LC50: =13.4mg/L (96h, Pimephales promelas) LC50: 2.661 - 4.093mg/L (96h, Oncorhynchus mykiss) LC50: 13.5 - 17.3mg/L (96h, Oncorhynchus mykiss) LC50: 13.1 - 16.5mg/L (96h, Lepomis macrochirus) LC50: =19mg/L (96h, Lepomis macrochirus) LC50: 7.711 - 9.591mg/L (96h, Lepomis macrochirus) LC50: 23.53 - 29.97mg/L (96h, Pimephales promelas) LC50: =780mg/L (96h, Cyprinus carpio) LC50: >780mg/L (96h, Cyprinus carpio) LC50: 30.26 - 40.75mg/L (96h, Poecilia reticulata)	-	EC50: =3.82mg/L (48h, water flea) LC50: =0.6mg/L (48h, Gammarus lacustris)

Persistence and degradability No information available.

Bioaccumulation

Component Information

Chemical name	Partition coefficient
Ethyl acetate	0.73

141-78-6	
Propylene glycol monomethyl ether acetate 108-65-6	1.2
C.I. Pigment Blue 15 147-14-8	6.6
Butanamide, 2,2`-[(3,3`-dichloro[1,1`-biphenyl]-4,4`-diyl 5468-75-7	0.5
Xylene 1330-20-7	3.15

Mobility in soil No information available.

Other adverse effects No information available.

13. Disposal considerations

Waste treatment methods

Waste from residues/unused products Should not be released into the environment, Dispose of in accordance with local regulations, Dispose of waste in accordance with environmental legislation.

Contaminated packaging Empty containers pose a potential fire and explosion hazard. Do not cut, puncture or weld containers.

California waste information This product contains one or more substances that are listed with the State of California as a hazardous waste.

14. Transport information

DOT

UN/ID no	UN1210
Proper shipping name	PRINTING INK
Transport hazard class(es)	3
Packing group	II
Reportable Quantity (RQ)	(Ethylbenzene: RQ (kg)= 454.00, Xylene: RQ (kg)= 45.40, Ethyl acetate: RQ (kg)= 2270.00) Ethylbenzene: RQ (lb)= 1000.00, Xylene: RQ (lb)= 100.00, Ethyl acetate: RQ (lb)= 5000.00
Reportable quantity kg (calculated)	Ethylbenzene: RQ (kg)= 3671.00, Xylene: RQ (kg)= 22700.00, Ethyl acetate: RQ (kg)= 4729.00
Reportable quantity lbs. (calculated)	Ethylbenzene: RQ (lb)= 8087.00, Xylene: RQ (lb)= 50000.00, Ethyl acetate: RQ (lb)= 10417.00
Special Provisions	B1, IB3, T2, TP1, 367
DOT Marine Pollutant	NP
Description	UN1210, PRINTING INK, 3, II
Emergency Response Guide Number	129

TDG

UN/ID no	UN1210
Proper shipping name	PRINTING INK
Transport hazard class(es)	3
Packing group	II
Special Provisions	59, 142
Description	UN1210, PRINTING INK, 3, II

IATA

UN number or ID number	UN1210
UN proper shipping name	Printing ink
Transport hazard class(es)	3

Packing group	II
ERG Code	3L
Special Provisions	A3, A72, A192
Description	UN1210, Printing ink, 3, II

IMDG

UN number or ID number	UN1210
UN proper shipping name	PRINTING INK
Transport hazard class(es)	3
Packing group	II
EmS-No	F-E, S-D
Special Provisions	163, 223, 367, 955
Marine pollutant	NP
Description	UN1210, PRINTING INK, 3, II, (24°C C.C.)

15. Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

International Regulations

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

International Inventories
Contact supplier for inventory compliance status
*Contact supplier for details. One or more substances in this product are either not listed on the US TSCA inventory, listed on the confidential US TSCA inventory or are otherwise exempted from inventory listing requirements

US Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical name	SARA 313 - Threshold Values %
C.I. Pigment Blue 15 - 147-14-8	1.0
Copper - 7440-50-8	1.0
Xylene - 1330-20-7	1.0

SARA 311/312 Hazard Categories
Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)
This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
C.I. Pigment Blue 15 147-14-8	-	X	-	-
Copper 7440-50-8	-	X	X	-
Xylene	100 lb	-	-	X

1330-20-7				

CERCLA
This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	Reportable Quantity (RQ)
Ethyl acetate 141-78-6	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ
Copper 7440-50-8	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ
Xylene 1330-20-7	100 lb	-	RQ 100 lb final RQ RQ 45.4 kg final RQ

US State Regulations

California Proposition 65
The classification listed below only applies to respirable Titanium dioxide and respirable carbon black. This product contains the following Proposition 65 chemicals:.

Chemical name	California Proposition 65
Titanium dioxide - 13463-67-7	Carcinogen
Carbon black - 1333-86-4	Carcinogen
Quartz - 14808-60-7	Carcinogen

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Ethyl acetate 141-78-6	X	X	X
Titanium dioxide 13463-67-7	X	X	X
Carbon black 1333-86-4	X	X	X
Iron oxide 1309-37-1	X	X	X
C.I. Pigment Blue 15 147-14-8	X	-	X
Silicon dioxide 7631-86-9	-	X	X
Copper 7440-50-8	X	X	X
Xylene 1330-20-7	X	X	X
Quartz 14808-60-7	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information

NFPA **Health hazards** 2 **Flammability** 3 **Instability** 0 **Special hazards** -
HMIS **Health hazards** 2 **Flammability** 3 **Physical hazards** 0 **Personal protection** X
Chronic Hazard Star Legend * = *Chronic Health Hazard*

Chronic Hazard Star Legend * = *Chronic Health Hazard*

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

Key literature references and sources for data used to compile the SDS

U.S. Environmental Protection Agency ChemView Database
European Food Safety Authority (EFSA)
EPA (Environmental Protection Agency)
Acute Exposure Guideline Level(s) (AEGL(s))
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
U.S. Environmental Protection Agency High Production Volume Chemicals
Food Research Journal
Hazardous Substance Database
International Uniform Chemical Information Database (IUCLID)
Japan GHS Classification
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
NIOSH (National Institute for Occupational Safety and Health)
National Library of Medicine's ChemID Plus (NLM CIP)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
Organization for Economic Co-operation and Development High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
World Health Organization

Issuing Date 21-Sep-2018

Revision Date 03-Jul-2024

Revision Note Change to classification.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet

Safety Data Sheet

According to OSHA Hazard Communication Standard, 29 CFR 1910.1200

Initial preparation date: 05.08.2019

Z3 & Z4 FLAP DISC MATERIAL

SECTION 1: Identification

Product identifier

Product name: Z3 & Z4 FLAP DISC MATERIAL

Synonyms: Coated Abrasives and Filler bound to a Polyester Backing Material

Additional information: This product is not hazardous as shipped and sold. However, during the grinding process, hazardous substances may be released and made available for exposure. The Hazard Classification in Section 2 and corresponding Label Elements are applicable to this product when used for grinding, sanding, mechanical abrasion or any other fabrication process that compromises the integrity of the disc.

Recommended use of the product and restriction on use

Relevant identified uses: Coated abrasives for sanding of material.

Uses advised against: Any use other than described above.

Reasons why uses advised against: Not determined or not applicable.

Manufacturer or supplier details

Manufacturer:

United States

CGW Abrasives
7525 N Oak Park Ave
Niles, IL 60714
800-447-3731
sales@cgwcamel.com

Emergency telephone number:

United States

Emergency Phone Number
800-447-3731 (24/7)

SECTION 2: Hazard(s) identification

GHS classification:

Eye irritation, category 2A
Specific target organ toxicity - repeated exposure, category 1
Skin irritation, category 2
Skin sensitization, category 1A

Label elements

Hazard pictograms:

Signal word: Danger

Hazard statements:

H319 Causes serious eye irritation
H372 Causes damage to organs (bone; teeth; hair; skin) through prolonged or repeated exposure.
H315 Causes skin irritation
H317 May cause an allergic skin reaction

Precautionary statements:

P264 Wash skin thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection
P260 Do not breathe dust/fume/gas/mist/vapors/spray
P270 Do not eat, drink or smoke when using this product
P272 Contaminated work clothing must not be allowed out of the workplace
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P337+P313 If eye irritation persists: Get medical advice/attention
P314 Get medical advice/attention if you feel unwell
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P321 Specific treatment (see Sections 4 - 8 of this SDS and any additional information on the product label).
P362 Take off contaminated clothing and wash it before reuse
P333+P313 If skin irritation or rash occurs: Get medical advice/attention
P501 Dispose of contents/container in accordance with all local/regional/state and federal regulations.

Hazards not otherwise classified:

Prolonged exposure to metal fume or dust may cause Metal Fume Fever
Finely dispersed particles may form explosive mixtures in air

SECTION 3: Composition/information on ingredients

Identification	Name	Weight %
CAS number: 1344-28-1	Aluminum Oxide	25-45
CAS number: 68955-26-0	Alumina Zirconia	25-45
CAS number: Not Applicable	Polyester	25-60
CAS number: 14075-53-7	Potassium tetrafluoroborate	1-15
CAS number: 471-34-1	Calcium Carbonate	1-10
CAS number: 15096-52-3	Trisodium hexafluoroaluminate (Cryolite)	1-15
CAS number: 9003-35-4	Cured Phenolic Resin	8-16

Additional Information: None

SECTION 4: First aid measures

Description of first aid measures

General notes:

The First Aid Measures described below are applicable to this product when used for grinding, sanding, mechanical abrasion or any other fabrication process that releases hazardous dust or fume

After inhalation:

If inhaled, remove person to fresh air and place in a position comfortable for breathing. Keep person at rest. If breathing is difficult, administer oxygen. If breathing has stopped, provide artificial respiration. If symptoms develop or persist, seek medical advice/attention

After skin contact:

Wash off with plenty of water. Remove contaminated clothing and launder before reuse. If skin irritation or rash develops and persist, seek medical advice/attention

After eye contact:

Rinse cautiously with water for several minutes. Remove contact lenses, if present to do so. Protect unexposed eye. Continue rinsing. Get medical attention if irritation develops or persists

After swallowing:

Not a likely route of exposure

Most important symptoms and effects, both acute and delayed

Acute symptoms and effects:

The Acute Effects described below are applicable to this product when used for grinding, sanding, mechanical abrasion or any other fabrication process that releases hazardous dust or fume
INHALATION of airborne dusts and fumes may cause respiratory irritation. Symptoms include cough, breathing difficulties, inflammation of the mucous membranes lining the respiratory tract and nose and throat pain. Excessive inhalation of fumes of freshly formed metal oxide particles may cause a flu-like illness called Metal Fume Fever
SKIN CONTACT may result in skin irritation. Symptoms include redness, inflammation and itching. May cause an allergic skin reaction. Symptoms include rash, burning, itching and inflammation
EYE CONTACT with airborne dust and fume may cause serious eye irritation. Symptoms include: redness, tearing, burning and inflammation

Delayed symptoms and effects:

The Delayed Effects described below are applicable to this product when used for grinding, sanding, mechanical abrasion or any other fabrication process that releases hazardous dust or fume
Chronic exposure to Aluminum Oxide and Zirconium Oxide may cause lung damage; resulting in chronic bronchitis, COPD and pulmonary fibrosis
Chronic exposure to fluoride and fluoride compounds may cause damage to teeth, bones (fluorosis) and lungs. Fluorosis is caused by a high fluoride concentration in the body. This causes the bones to harden and become less elastic, resulting in increased fractures, joint pain and immobility

Immediate medical attention and special treatment

Specific treatment:

None known

Notes for the doctor:

Treat symptomatically

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media:

Alcohol- resistant foam, Dry chemical or Carbon dioxide

Unsuitable extinguishing media:

Do not use water jet as an extinguisher

Specific hazards during fire-fighting:

Thermal decomposition may lead to the release of irritating and toxic substances, including: Carbon Oxides, Aluminum Oxides, Zirconium Oxides, Potassium Oxides. Calcium Oxides, Hydrogen Fluoride, Borane, Boron Oxides, Formaldehyde and Phenol

Special protective equipment for firefighters:

Self-contained MSHA/NIOSH approved respiratory protection and full protective clothing should be worn when fumes and/or smoke from fire are present

Special precautions:

Not determined or not applicable.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Not Applicable

Environmental precautions:

Discharge into the environment should be avoided

Methods and material for containment and cleaning up:

Not Applicable

Reference to other sections:

Not determined or not applicable.

SECTION 7: Handling and storage

Precautions for safe handling:

The Precautions for Safe Handling described below are applicable to this product when used for grinding, sanding, mechanical abrasion or any other fabrication process that releases hazardous dust or fume.
Wear recommended personal protective equipment (see Section 8).
Use only with adequate ventilation.
Do not breathe dust/fume/aerosol/mist/spray.
Avoid contact with eyes, skin and clothing.
Keep away from hot surfaces, open flame and sources of ignition.
Do not eat, drink or smoke while using.
Wash thoroughly after handling.
Do not allow contaminated clothing outside of the workplace.

Conditions for safe storage, including any incompatibilities:

Sore in a cool, dry place and out of direct sunlight.
Store at Temperatures, 15°C--27°C and Humidity, 40%- 50%
Do not place the materials on the ground or concrete floor.
Store away from hot surfaces (e.g. heater, radiator), open flame, ignition sources and incompatible materials. See Section 10 for incompatibles.

SECTION 8: Exposure controls/personal protection

Only those substances with limit values have been included below.

Occupational Exposure limit values:

Country (Legal Basis)	Substance	Identifier	Permissible concentration
OSHA	Alumina Zirconia	68955-26-0	8-Hour TWA-PEL: 5 mg/m³ ((As Zr))

Country (Legal Basis)	Substance	Identifier	Permissible concentration
	Calcium Carbonate	471-34-1	TWA: 5 mg/m³ (Respirable fraction)
	Calcium Carbonate	471-34-1	TWA: 15 mg/m³ (Total dust)
	Trisodium hexafluoroaluminate (Cryolite)	15096-52-3	8-Hour TWA-PEL: 2.5 mg/m³ ((Fluorides as F))
	Aluminum Oxide	1344-28-1	8-Hour TWA-PEL: 15 mg/m³ ((total dust))
	Aluminum Oxide	1344-28-1	8-Hour TWA-PEL: 5 mg/m³ ((respirable fraction))
NIOSH	Alumina Zirconia	68955-26-0	TWA: 5 mg/m³ ((as Zr) - 10 hr.)
	Alumina Zirconia	68955-26-0	15-Minute STEL: 10 mg/m³ ((As Zr))
	Alumina Zirconia	68955-26-0	IDLH: 50 mg/m³
	Calcium Carbonate	471-34-1	REL: 10 mg/m³ (Total)
	Calcium Carbonate	471-34-1	REL: 5 mg/m³ (Respirable)
	Trisodium hexafluoroaluminate (Cryolite)	15096-52-3	8-Hour TWA: 2.5 mg/m³ ((Fluorides as F))
	Trisodium hexafluoroaluminate (Cryolite)	15096-52-3	TWA: 2.5 mg/m³ ((Fluorides as F))
ACGIH	Alumina Zirconia	68955-26-0	8-Hour TWA: 5 mg/m³ ((As Zr))
	Alumina Zirconia	68955-26-0	15-Minute STEL: 10 mg/m³ ((As Zr))
	Trisodium hexafluoroaluminate (Cryolite)	15096-52-3	8-Hour TWA: 2.5 mg/m³ ((Fluorides as F) - TLV Basis: bone damage; fluorosis. BEI)
	Aluminum Oxide	1344-28-1	8-Hour TWA: 1 mg/m³ ((respirable particulate))

Biological limit values:

No biological exposure limits noted for the ingredient(s).

Information on monitoring procedures:

Not determined or not applicable.

Appropriate engineering controls:

The Engineering Controls described below are applicable to this product when used for grinding, sanding, mechanical abrasion or any other fabrication process that releases hazardous dust or fume.
Use controls as appropriate to minimize exposure to metal fumes and dusts during handling operations. Provide general or local exhaust ventilation systems to minimize airborne concentrations. Local exhaust is necessary for use in enclosed or confined spaces. Provide sufficient general/local exhaust ventilation in pattern/volume to control inhalation exposures below current exposure limits

Personal protection equipment

Eye and face protection:

Contact lenses should not be worn where industrial exposure to this material is likely. Wear safety glasses, face shield or goggles as required for welding, burning, sawing, brazing, grinding or machining operations.

Skin and body protection:

Cut resistant gloves and sleeves should be worn when working with metal parts. Protective gloves should be worn as required for grinding, welding and burning operations. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with

this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Personal protective equipment for the body should be selected based on the task being performed and the risks involved. For grinding, welding and burning operations, wear appropriate personal protective clothing to prevent skin contact. Contaminated work clothing must not be allowed out of the workplace.

Respiratory protection:

Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, use only a NIOSH-approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. Concentration in air of the various contaminants determines the extent of respiratory protection needed.

General hygienic measures:

Handle in accordance with good industrial hygiene and safety measures. Wash hands and face after handling chemical products. Wash hands before eating, drinking and smoking. Wash hands at the end of the workday.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Coated Abrasive with a Polyester Backing
Odor	None
Odor threshold	Not determined or not available.
pH	Not determined or not available.
Melting point/freezing point	Not determined or not available.
Initial boiling point/range	Not determined or not available.
Flash point (closed cup)	Not determined or not available.
Evaporation rate	Not determined or not available.
Flammability (solid, gas)	Not determined or not available.
Upper flammability/explosive limit	Not determined or not available.
Lower flammability/explosive limit	Not determined or not available.
Vapor pressure	Not determined or not available.
Vapor density	Not determined or not available.
Density	Not determined or not available.
Relative density	Not determined or not available.
Solubilities	Not determined or not available.
Partition coefficient (n-octanol/water)	Not determined or not available.
Auto/Self-ignition temperature	Not determined or not available.
Decomposition temperature	Not determined or not available.
Dynamic viscosity	Not determined or not available.
Kinematic viscosity	Not determined or not available.
Explosive properties	Not determined or not available.
Oxidizing properties	Not determined or not available.

Other information

SECTION 10: Stability and reactivity

Reactivity:
Stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability:
Stable under normal storage and handling conditions.

Possibility of hazardous reactions:
Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid:
Strong acids, Strong bases & Strong oxidizing agents may modify the mechanical characteristics of the products and create safety hazards when used on machines

Incompatible materials:
Strong Acids; Strong Bases; Strong Oxizing Agents

Hazardous decomposition products:
During use, hazardous dust and fume will be released.
Thermal decomposition may lead to the release of irritating and toxic substances, including: Carbon Oxides, Aluminum Oxides, Zirconium Oxides, Potassium Oxides. Calcium Oxides, Hydrogen Fluoride, Borane, Boron Oxides, Formaldehyde and Phenol.

SECTION 11: Toxicological information

Acute toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

Skin corrosion/irritation

Assessment:
Causes skin irritation.

Product data:
No data available.

Substance data:

Name	Result
Potassium tetrafluoroborate	Causes severe skin burns.
Cured Phenolic Resin	Causes skin irritation.

Serious eye damage/irritation

Assessment:
Causes serious eye irritation.

Product data:
No data available.

Substance data:

Name	Result
Potassium tetrafluoroborate	Causes serious eye damage.
Cured Phenolic Resin	Causes serious eye irritation.

Respiratory or skin sensitization

Assessment:
May cause an allergic skin reaction.

Product data:

No data available.

Substance data:

Name	Result
Cured Phenolic Resin	May cause an allergic skin reaction.

Carcinogenicity

Assessment: Based on available data, the classification criteria are not met.

Product data: No data available.

Substance data: No data available.

International Agency for Research on Cancer (IARC): None of the ingredients are listed.

National Toxicology Program (NTP): None of the ingredients are listed.

Germ cell mutagenicity

Assessment: Based on available data, the classification criteria are not met.

Product data:

No data available.

Substance data: No data available.

Reproductive toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data:

No data available.

Substance data: No data available.

Specific target organ toxicity (single exposure)

Assessment: Based on available data, the classification criteria are not met.

Product data:

No data available.

Substance data:

Name	Result
Potassium tetrafluoroborate	May cause respiratory irritation.

Specific target organ toxicity (repeated exposure)

Assessment:

Causes damage to organs through prolonged or repeated exposure.

Product data:

No data available.

Substance data:

Name	Result
Potassium tetrafluoroborate	Causes damage to organs (bone, teeth, hair, skin) after prolonged or repeated exposure.
Trisodium hexafluoroaluminate (Cryolite)	Causes damage to organs (bones; fluorosis) through prolonged or repeated exposure.

Aspiration toxicity

Assessment: Based on available data, the classification criteria are not met.

Product data:

No data available.

Substance data: No data available.

Information on likely routes of exposure:

No data available.

Symptoms related to the physical, chemical and toxicological characteristics:
See Section 4: Acute Effects; Delayed Effects
Other information:
No data available.

SECTION 12: Ecological information

Acute (short-term) toxicity
Assessment: Based on available data, the classification criteria are not met.
Product data: No data available.
Substance data: No data available.
Chronic (long-term) toxicity
Assessment: Based on available data, the classification criteria are not met.
Product data: No data available.
Substance data: No data available.
Persistence and degradability
Product data: No data available.
Substance data: No data available.
Bioaccumulative potential
Product data: No data available.
Substance data: No data available.
Mobility in soil
Product data: No data available.
Substance data: No data available.
Other adverse effects: No data available.

SECTION 13: Disposal considerations

Disposal methods:
Dispose of in accordance with all applicable local, regional, state and federal regulations
Contaminated packages: Not determined or not applicable.

SECTION 14: Transport information

United States Transportation of dangerous goods (49 CFR DOT)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

International Maritime Dangerous Goods (IMDG)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None

Special precautions for user	None

International Air Transport Association Dangerous Goods Regulations (IATA-DGR)

UN number	Not regulated
UN proper shipping name	Not regulated
UN transport hazard class(es)	None
Packing group	None
Environmental hazards	None
Special precautions for user	None

SECTION 15: Regulatory information

United States regulations

Inventory listing (TSCA):

68955-26-0	Alumina Zirconia	Listed
14075-53-7	Potassium tetrafluoroborate	Listed
471-34-1	Calcium Carbonate	Listed
15096-52-3	Trisodium hexafluoroaluminate (Cryolite)	Listed
1344-28-1	Aluminum Oxide	Listed
9003-35-4	Cured Phenolic Resin	Listed

SARA Section 302 extremely hazardous substances: No ingredients listed.

SARA Section 313 toxic chemicals:

68955-26-0	Alumina Zirconia	Not Listed
14075-53-7	Potassium tetrafluoroborate	Not Listed
471-34-1	Calcium Carbonate	Not Listed
15096-52-3	Trisodium hexafluoroaluminate (Cryolite)	Not Listed
1344-28-1	Aluminum Oxide	Listed
9003-35-4	Cured Phenolic Resin	Not Listed

CERCLA: No ingredients listed.

RCRA: No ingredients listed.

Massachusetts Right to Know:

68955-26-0	Alumina Zirconia	Listed
14075-53-7	Potassium tetrafluoroborate	Listed
471-34-1	Calcium Carbonate	Listed
1344-28-1	Aluminum Oxide	Listed

New Jersey Right to Know:

68955-26-0	Alumina Zirconia	Listed
14075-53-7	Potassium tetrafluoroborate	Listed
471-34-1	Calcium Carbonate	Listed

15096-52-3	Trisodium hexafluoroaluminate (Cryolite)	Listed
1344-28-1	Aluminum Oxide	Listed
9003-35-4	Cured Phenolic Resin	Listed

New York Right to Know:

1344-28-1	Aluminum Oxide	Listed

Pennsylvania Right to Know:

68955-26-0	Alumina Zirconia	Listed
14075-53-7	Potassium tetrafluoroborate	Listed
471-34-1	Calcium Carbonate	Listed
15096-52-3	Trisodium hexafluoroaluminate (Cryolite)	Listed
1344-28-1	Aluminum Oxide	Listed
9003-35-4	Cured Phenolic Resin	Listed

California Proposition 65:

⚠**WARNING:** This product can expose you to chemicals including Phenol and Formaldehyde which are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

SECTION 16: Other information

Abbreviations and Acronyms: None

Disclaimer:

This product has been classified in accordance with OSHA HCS 2012 guidelines. The information provided in this SDS is correct, to the best of our knowledge, based on information available. The information given is designed only as a guidance for safe handling, use, storage, transportation and disposal and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials, unless specified in the text. The responsibility to provide a safe workplace remains with the user.

NFPA: 0-0-0

HMIS: 0-0-0

Initial preparation date: 05.08.2019

End of Safety Data Sheet

KOP-FLEX®

Material Safety Data Sheet
KSG Grease

Battenfeld America	MATERIAL SAFETY DATA SHEET KSG GREASE	ADDRESS: 1174 Erie Avenue P. O. Box 728 N. Tonawanda, New York 14210

PRODUCT IDENTIFICATION

Product Name Kop-Flex, Inc. KSG Grease	Case No. 61,036-1A	Emergency Phone Number(s) Business: (716) 822-8410 Other:
Lubricating Grease		5/02
Synonyms		Chemical Family Hydrocarbon

INGREDIENTS

Materials or Components	% W	CAS NUMBER	CARCINOGEN OSHA OR IARC
Polyethylene	6 - 15	9002-88-4	No
*Lubrizol	1 - 3	*	No
*Lubrizol	0.2 - 3	68649-42-3	No
Blue Dye	0 - 0.10	- - - - -	No
Mineral Oil	5 - 15	64742-53-6	No
Mineral Oil	60 - 80	64742-52-5	No
*Lubrizol Corporation			

SHIPPING INFORMATION

Not Restricted

PHYSICAL PROPERTIES

Boiling Point/Range	Melting Point	Freezing Point	Molecular weight(Calculated)
°C 400	°C 170	°C NA	NA

Specific Gravity (H_2O)	Vapor Pressure (mm HG)	Vapor Density (Air = 1)
0.89 @ / 16 °C	NA °F °C	NA

Solubility in H_2O	%Volatiles by Volume	Evaporation Rate
Nil	0	Either = 1 Water =1 Butylacetata NA = 1

Appearance and Odor	Other
Green Semi-Solid	

FIRE AND EXPLOSION DATA

Flash Point	Test Method	Flammable Limits	Autoignition Temperature/Fine Point
°C 440	°F	Lower NA % Upper %	°C 485 °F

EXTINGUISHING MEDIA

☐ Water-spray ☒ Water-fog ☐ Water-stream ☒ CO_2 ☒ Dry chemical ☐ Alcohol foam ☒ Foam ☒ Earth or sand

SPECIAL FIRE FIGHTING PROCEDURES

☐ Do not enter Building ☐ Allow fire to burn ☒ Water may cause frothing ☐ Do not use water

UNUSUAL FIRE AND EXPLOSION HAZARDS

☐ Dust explosion Hazard ☐ Sensitive to shock ☐ Contamination ☐ Temperature ☐ Other (Specify) None

REACTIVITY DATA

STABILITY

☒ Stable ☐ Unstable

CONDITIONS CONTRIBUTING TO INSTABILITY

☐ Thermal decomposition ☐ Photo degradation ☐ Polymerization ☐ Contamination

IMCOMPATIBILITY = AVOID CONTACT WITH

☐ Strong Acids ☐ Strong Alkalis ☒ Strong Oxidizers ☐ Other (Specify):

HAZARDOUS DECOMPOSITION PRODUCTS - THERMAL AND OTHER (list)
CO & CO_2 IF INCOMPLETE CONBUSTION.

CONDITIONS TO AVOID

☐ Heat ☒ Open Flames ☐ Sparks ☐ Ignition sources ☐ Other (specify):

SPILL LEAK

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED

☐ Flush with Water ☒ Absorb with sand or inert material ☐ Neutralize ☒ Sweep or scoop up and remove ☐ Keep upwind Evacuate enclosed spaces. ☐ Prevent Spread or spill

☐ Dispose of Immediately ☐ Other (specify)

WASTE DISPOSAL METHOD - *Consult federal, state, or local authorities for proper disposal procedures.*

ALL DISPOSALS MUST COMPLY WITH
FEDERAL, STATE AND LOCAL REGULATIONS.

CONTINUED ON REVERSE SIDE →

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Before using product, read and follow directions and precautions on product label and bulletins.

TOXICITY INFORMATION

CONDITIONS TO AVOID

Excessive Skin Contact

PRIMARY ROUTES OF ENTRY

☐ INHALATION ☒ SKIN CONTACT ☐ OTHER (Specify)

This product has been used for years with no known ill effects. It contains no known carcinogens or mutagens as defined by OSHA or IARC.

This product contains the following toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372):

CAS #	Chemical Name	Percent by Weight
68649-42-3	Zinc Alkyidithiophospate	0 .2 - 3.0

HEALTH HAZARD INFORMATION

NFPA Rating

Health.....0
Flammability.....1
Reactivity.....0
Protective Equipment.....3

NFPA HAZARD RATING CODES
Least.....0 Slight.....1 Moderate.....2 High.....3 Extreme.....4

Effects of Exposure

PERMISSIBLE EXPOSURE LIMIT (Specify if TLV/TWA or Ceiling (c))
ACGIH 20 | OSHA 2004 | Others 5mg/m³ For Mineral Oil

IRRITATION	☒ Skin	☐ Severe	☐ Moderate	☒ Mild (Transient)
	☒ Eye	☐ Severe	☐ Moderate	☒ Mild (Transient)
CORROSIVITY	☐ Skin	☐ 4 hrs.(DOT)	☐ 24 hrs (CPSC)	
	☐ Eye	☐ May cause blindness	☒ Not Corrosive	

SENSITIZATION
☐ Skin ☐ Respitory ☒ None

INHALATION EFFECTS
☐ Narcotic effect ☐ Cysnosis ☐ Asphyxiant

LUNG EFFECTS (Specify):
NA

OTHER (Specify):
☐ Repeated contact-skin defatter ☐ Other (Specify) NA

Emergency First Aid

INGESTION
☐ Induce vomiting ☒ DO NOT induce vomiting ☐ Give plenty of water ☒ Get medical attention ☐ Other (Specify):

DERMAL
☒ Flush with soap and water ☐ Get medical attention ☒ Contaminated clothing-remove & launder ☐ Contaminated shoes - destroy ☐ Other (Specify)

EYE CONTACT
☒ Flush with plenty of water for at least 15 minutes ☒ Get medical attention ☐ Other (Specify): Nitrile

INHALATION
☐ Remove to fresh air ☐ If not breathing give artificial respiration ☐ Give oxygen ☐ Get medical attention ☐ Other (Specify): NA

SPECIAL PROTECTION INFORMATION

VENTILATION REQUIREMENTS - *Always maintain exposure below permissible exposure limits*
☐ Consult an individual hyglenist or environmental health specialist ☐ Local exhaust ☒ Use with adequate ventilation ☐ Check for air contamination and oxygen deficiency
☐ Other (Specify):

EYE
☐ Safety glasses ☐ Face Shield ☐ Goggles

HAND (GLOVE TYPE)
☐ Butyl Rubber ☐ Polyvinyl alcohol ☒ Other (Specify):
☐ Polyvinyl chloride ☒ Neoprene ☐ Natural rubber ☐ Polyethtlene

RESPIRATOR TYPE - *Use only NIOSH / MESA approved equipment*
☐ Self-contained ☐ Supplied air ☐ Can or cartridge gas or vapor ☐ Fiber-dust, fume, mist ☐ Other (Specify): NA

OTHER PROTECTIVE EQUIPMENT
☐ Rubber boots ☐ Apron ☐ Other (specify): None Normally Required

SPECIAL PRECAUTIONS

PRECAUTIONARY NOTES
☒ Wash Thoroughly after handling ☒ Do not get in eyes, or on clothing ☒ Do not breathe dust, vapor, mist, gas ☒ Keep container closed ☒ Keep away from sparks, and open flames ☐ store in tightly closed containers
☐ Do not store near Combustibles ☐ Keep from contact with clothing and other conbustible materials ☐ Empty container may contain hazardous residues ☐ Use explosion proof equipment ☐ Other (Specify):

Other handling and storage conditions
Normal Precautions Common To Good Manufacturing Practices Should Be Followed.

Prepared by	Date	Address	Phone
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