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