



Safety Data Sheet

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 08.07.2019

Page 1 of 12

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 and Fiberglass Plate

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 identification

GHS classification:

Eye irritation, category 2A

Skin sensitization, category 1

Specific target organ toxicity - repeated exposure, category 1

Skin irritation, category 2

Label elements

Hazard pictograms:

Safety Data Sheet

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 08.07.2019

Page 2 of 12

Z3 & Z4 FLAP DISC MATERIAL



Signal word: Danger

Hazard statements:

H319 Causes serious eye irritation

H317 May cause an allergic skin reaction

H372 Causes damage to organs (bone; teeth; hair; skin) through prolonged or repeated exposure.

H315 Causes skin irritation

Precautionary statements:

P264 Wash skin thoroughly after handling

P280 Wear protective gloves/protective clothing/eye protection/face protection

P272 Contaminated work clothing should not be allowed out of the workplace

P260 Do not breathe dust/fume/gas/mist/vapours/spray

P270 Do not eat, drink or smoke when using this product

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

P302+P352 IF ON SKIN: Wash with plenty of water/soap.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention

P321 Specific treatment (see Sections 4 - 8 of this SDS and any additional information on the product label).

P314 Get medical advice/attention if you feel unwell

P362+P364 Take off contaminated clothing and wash it before reuse

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.

If this product is used in a manner that compromises the integrity of the fiber glass plate, airborne crystalline silica of respirable size may become available for exposure. Airborne silica of respirable size can cause Silicosis, an incurable lung disease that can lead to disability and death; Lung cancer; Chronic obstructive pulmonary disease (COPD); and Kidney disease. Although not readily available, crystalline silica has been included in Section 3 (composition) and Section 8 (occupational exposure limits).

SECTION 3: Composition/information on ingredients

Identification	Name	Weight %
CAS number: Not Applicable	Polyester	25-60
CAS number: 1344-28-1	Aluminum Oxide	25-45
CAS number: 1314-23-4	Zirconium dioxide	25-45
CAS number: 471-34-1	Calcium Carbonate	1-10

Safety Data Sheet

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 08.07.2019

Page 3 of 12

Z3 & Z4 FLAP DISC MATERIAL

CAS number: 15096-52-3	trisodium hexafluoroaluminate	1-15
CAS number: 14075-53-7	Potassium tetrafluoroborate	1-15
CAS number: 9003-35-4	Formaldehyde, oligomeric reaction products with phenol	8-16

Additional Information:

The concentration range for product ingredients represents the expected variable composition of the product as supplied and the variable composition of ingredients released during use. For more information about the composition for sampling purposes, contact CGW Abrasives.

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:

Remove source of exposure or move person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor.

After skin contact:

Remove contaminated clothing and shoes. Rinse skin with copious amounts of water [shower] for several minutes. Launder contaminated clothing before reuse. If symptoms develop or 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 ingestion:

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.

Safety Data Sheet

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 08.07.2019

Page 4 of 12

Z3 & Z4 FLAP DISC MATERIAL

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.

Chronic exposure to airborne silica of respirable size can cause Silicosis, an incurable lung disease that can lead to disability and death; Lung cancer; Chronic obstructive pulmonary disease (COPD); and Kidney disease.

Immediate medical attention and special treatment

Specific treatment:

If concerned or not feeling well, seek medical attention/advice.

Notes for the doctor:

Treat symptomatically.

SECTION 5: Fire-fighting 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, as this will spread the fire.

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, Silicon 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:

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.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Wear appropriate respirator and protective clothing (see Section 8) as needed to avoid eye contact and inhalation of dust.

Environmental precautions:

Prevent entry into drains, sewer and waterways.
Do not discharge into the environment.

Methods and material for containment and cleaning up:

Carefully sweep up or gather dry material, avoiding the creation of airborne dust. Place recovered product in appropriate container for future disposal. Dispose of in accordance with all applicable regulations (see Section 13).

Reference to other sections:

Section 8: Personal Protective equipment

Safety Data Sheet

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 08.07.2019

Page 5 of 12

Z3 & Z4 FLAP DISC MATERIAL

Section 13: Disposal

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). Do not contaminate water, food, or feed by storage or disposal. Use only with adequate ventilation. Do not breathe dust or fume. 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. Launder contaminated clothing before reuse.

Conditions for safe storage, including any incompatibilities:

Store 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
Alberta	Aluminum Oxide	1344-28-1	8-Hour TWA: 10 mg/m ³ (Total dust)
	Aluminum Oxide	1344-28-1	8-Hour TWA: 3 mg/m ³ (Respirable)
	Zirconium dioxide	1314-23-4	8-Hour TWA: 5 mg/m ³ ((as Zr))
	Zirconium dioxide	1314-23-4	15-Minute STEL: 10 mg/m ³ ((as Zr))
British Columbia	Aluminum Oxide	1344-28-1	8-Hour TWA: 1 mg/m ³ (Respirable)
	Aluminum Oxide	1344-28-1	8-Hour TWA: 10 mg/m ³ (Total dust)
	Zirconium dioxide	1314-23-4	8-Hour TWA: 5 mg/m ³ ((as Zr))
	Zirconium dioxide	1314-23-4	15-Minute STEL: 10 mg/m ³ ((as Zr))
Manitoba	Aluminum Oxide	1344-28-1	8-Hour TWA: 1 mg/m ³ (Respirable)
	Zirconium dioxide	1314-23-4	8-Hour TWA: 5 mg/m ³ ((as Zr))
	Zirconium dioxide	1314-23-4	15-Minute STEL: 10 mg/m ³ ((as Zr))
Ontario	Aluminum Oxide	1344-28-1	8-Hour TWA: 1 mg/m ³ (Respirable)
	Aluminum Oxide	1344-28-1	8-Hour TWA: 10 mg/m ³ (Inhalable)
	Zirconium dioxide	1314-23-4	8-Hour TWA: 5 mg/m ³ ((as Zr))

Safety Data Sheet

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 08.07.2019

Page 6 of 12

Z3 & Z4 FLAP DISC MATERIAL

Country (Legal Basis)	Substance	Identifier	Permissible concentration
	Zirconium dioxide	1314-23-4	15-Minute STEL: 10 mg/m ³ ((as Zr))
Quebec	Aluminum Oxide	1344-28-1	8-Hour TWA: 10 mg/m ³ (Total dust)
	Zirconium dioxide	1314-23-4	8-Hour TWA: 5 mg/m ³ ((as Zr))
	Zirconium dioxide	1314-23-4	15-Minute STEL: 10 mg/m ³ ((as Zr))
Saskatchewan	Aluminum Oxide	1344-28-1	8-Hour TWA: 10 mg/m ³ (Inhalable)
	Aluminum Oxide	1344-28-1	15-Minute STEL: 20 mg/m ³ (Inhalable)
	Aluminum Oxide	1344-28-1	8-Hour TWA: 3 mg/m ³ (Respirable)
	Aluminum Oxide	1344-28-1	15-Minute STEL: 6 mg/m ³ (Respirable)
	Zirconium dioxide	1314-23-4	8-Hour TWA: 5 mg/m ³ ((as Zr))
	Zirconium dioxide	1314-23-4	15-Minute STEL: 10 mg/m ³ ((as Zr))
Canada	Calcium Carbonate	471-34-1	8-Hour TWA: 10 mg/m ³ (Alberta)
	Calcium Carbonate	471-34-1	15-Minute STEL: 20 mg/m ³ ((British Columbia) (Total Dust))
	Calcium Carbonate	471-34-1	8-Hour TWA: 10 mg/m ³ ((British Columbia)(Total Dust))
	Calcium Carbonate	471-34-1	8-Hour TWA: 3 mg/m ³ ((British Columbia) (Respirable Fraction))
	Calcium Carbonate	471-34-1	8-Hour TWA: 10 mg/m ³ (Quebec)
	Calcium Carbonate	471-34-1	8-Hour TWA: 10 mg/m ³ (Saskatchewan)
	Calcium Carbonate	471-34-1	8-Hour TWA: 20 mg/m ³ (Saskatchewan)

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

Safety Data Sheet

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 08.07.2019

Page 7 of 12

Z3 & Z4 FLAP DISC MATERIAL

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.

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

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 (physical state, color):	Coated Abrasive with a Polyester Backing
Odor:	None
Odor threshold:	Not determined or not available.
pH-value:	Not determined or not available.
Melting/Freezing point:	Not determined or not available.
Boiling point/range:	Not determined or not available.
Flash point:	Not determined or not available.
Evaporation rate:	Not determined or not available.
Flammability (solid, gaseous):	Not determined or not available.
Explosion limit upper:	Not determined or not available.
Explosion limit lower:	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.

Safety Data Sheet

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 08.07.2019

Page 8 of 12

Z3 & Z4 FLAP DISC MATERIAL

Explosive properties	Not determined or not available.
Oxidizing properties	Not determined or not available.

Other information

SECTION 10: Stability and reactivity

Reactivity:

Not reactive under recommended storage and handling conditions.

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:

Thermal decomposition may lead to the release of irritating and toxic substances, including: Carbon Oxides, Aluminum Oxides, Zirconium Oxides, Potassium Oxides, Silicon 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:

Name	Route	Result
trisodium hexafluoroaluminate	oral	LD50 Rat: >5000 mg/kg

Skin corrosion/irritation

Assessment:

Causes skin irritation.

Product data:

No data available.

Substance data:

Name	Result
Potassium tetrafluoroborate	Causes severe skin burns.
Formaldehyde, oligomeric reaction products with phenol	Causes skin irritation.

Serious eye damage/irritation

Assessment:

Causes serious eye irritation.

Product data:

Safety Data Sheet

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 08.07.2019

Page 9 of 12

Z3 & Z4 FLAP DISC MATERIAL

No data available.

Substance data:

Name	Result
Potassium tetrafluoroborate	Causes serious eye damage.
Formaldehyde, oligomeric reaction products with phenol	Causes serious eye irritation.

Respiratory or skin sensitization

Assessment:

May cause an allergic skin reaction.

Product data:

No data available.

Substance data:

Name	Result
Formaldehyde, oligomeric reaction products with phenol	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.

Safety Data Sheet

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 08.07.2019

Page 10 of 12

Z3 & Z4 FLAP DISC MATERIAL

Substance data:

Name	Result
Zirconium dioxide	Chronic exposure to Zirconium Oxide fumes or dust may damage the lungs.
trisodium hexafluoroaluminate	Causes damage to organs (bones; fluorosis) through prolonged or repeated exposure.
Potassium tetrafluoroborate	Causes damage to organs (bone, teeth, hair, skin) after 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:

No data available.

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:

Safety Data Sheet

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 08.07.2019

Page 11 of 12

Z3 & Z4 FLAP DISC MATERIAL

Dispose of in accordance with all applicable local, regional, state and federal regulations.

Contaminated packages:

Not determined or not applicable.

SECTION 14: Transport information

Canadian Transportation of Dangerous Goods (TDG)

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

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Bulk Name	None
Ship type	None
Pollution category	None

SECTION 15: Regulatory information

Canada regulations

Domestic substances list (DSL): None of the ingredients are listed.

Non-domestic substances list (NDSL): None of the ingredients are listed.

Safety Data Sheet

According to Canadian Hazardous Products Regulations and WHMIS 2015

Initial preparation date: 08.07.2019

Page 12 of 12

Z3 & Z4 FLAP DISC MATERIAL

SECTION 16: Other information

Abbreviations and Acronyms: None

Disclaimer:

This product has been classified in accordance with the Canadian Hazardous Products Regulations and WHMIS 2015. 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.

Initial preparation date: 08.07.2019

End of Safety Data Sheet