

Safety Data Sheet
acc. to OSHA HCS

Printing date 07/02/2024

Version 5.0

Last revision 06/01/2024

*** 1 Identification**

· **Product name:** Zirconia Alumina Abrasive Discs - Belts

· **Part number:**

50-10001-Z , 50-10045-Z, 50-10050-Z
50-10210-Z, 50-10215-Z, 50-10220-Z
50-10420-Z, 50-10425-Z, 50-10435-Z
50-11045-Z, 50-11050-Z
50-146025-Z, 50-146035-Z

· **Application of the substance / the mixture** Abrasive

· **Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

Allied High Tech Products Inc.
16207 Carmenita Road
USA-Cerritos, CA, 90703
USA
info@alliedhightech.com

· **Information department:** Product safety department

· **Emergency telephone number:**

During normal opening times: +1 (310) 635-2466
Chemtrec: +1 (202) 483-7616

2 Hazard(s) identification

· **Classification of the substance or mixture**



GHS08 Health hazard

Specific Target Organ Toxicity - Repeated Exposure 1 H372 Causes damage to the lung and the bones through prolonged or repeated exposure.

Aquatic Chronic 3

H412 Harmful to aquatic life with long lasting effects.

· **Additional information:**

All components listed for this product are bound within the product. When handled as intended and under normal conditions of use, there is no evidence that any of the ingredients are released in amounts that pose a significant health risk.

· **Label elements**

· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS08

· **Signal word** Danger

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· Hazard-determining components of labeling:

trisodium hexafluoroaluminate

· Hazard statements

Causes damage to the lung and the bones through prolonged or repeated exposure.

Harmful to aquatic life with long lasting effects.

· Precautionary statements

Do not breathe dust/fume/gas/mist/vapors/spray.

Wash thoroughly after handling.

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

Avoid release to the environment.

Get medical advice/attention if you feel unwell.

Dispose of contents/container in accordance with local/regional/national/international regulations.

3 Composition/information on ingredients

· Chemical characterization: Mixtures**· Description:** Mixture of the substances listed below with nonhazardous additions.**· Hazardous components and components with occupational exposure limits:**

7440-67-7	Zirconia alumina	30-40%
7727-43-7	barium sulphate, natural	30-40%
1317-65-3	Limestone	20-30%
	⚠ Acute Toxicity - Inhalation 4, H332	
557-05-1	zinc distearate, pure	5-10%
1332-58-7	Kaolin	5-10%
13775-53-6	trisodium hexafluoroaluminate	5-<10%
	⚠ Specific Target Organ Toxicity - Repeated Exposure 1, H372; ⚠ Aquatic Chronic 2, H411; ⚠ Acute Toxicity - Inhalation 4, H332	
7778-18-9	calcium sulphate, natural	1-5%
107-21-1	ethylene glycol	≤1%
	⚠ Acute Toxicity - Oral 4, H302	
1309-37-1	diiron trioxide	≤1%
14075-53-7	potassium tetrafluoroborate	≤1%
	⚠ Acute Toxicity - Oral 3, H301; ⚠ Skin Irritation 2, H315; Eye Irritation 2A, H319	
15096-52-3	cryolite	0.25-≤1%
	⚠ Aquatic Chronic 2, H411; ⚠ Acute Toxicity - Inhalation 4, H332	
14808-60-7	Quartz (SiO ₂)	<0.1%
	⚠ Carcinogenicity 1A, H350	

· Non-hazardous components:

	Resin	10-20%
	Paper Backing	10-20%
1592-23-0	calcium distearate, pure	5-10%
	Garnet	5-10%
	Lubricant	1-5%
	Filler	1-5%
	Nylon loop	1-5%
	Wax	1-5%
1317-61-9	triiron tetraoxide	≤1%

· Additional information:

Product may contain many or all of the above ingredients.

The specific chemical identity and/or exact percentage of the composition has been withheld as a trade secret.

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4 First-aid measures

- **Description of first aid measures**
- **General information:**
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed**
Eye irritation
Dermatitis
- **Indication of any immediate medical attention and special treatment needed** No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** During heating or in case of fire poisonous gases are produced.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Keep away from ignition sources
- **Environmental precautions:**
Do not allow to enter sewers/ surface or ground water.
Inform respective authorities in case of seepage into water course or sewage system.
- **Methods and material for containment and cleaning up:**
Pick up mechanically.
Dispose contaminated material as waste according to section 13.
Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** Ensure proper ventilation/exhaustion at workplaces.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Store in a cool location.
No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Store receptacle in a well ventilated area.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No additional data. See 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**
The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.

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At this time, the remaining constituent has no known exposure limits.

7440-67-7 Zirconia alumina	
PEL	Long-term value: 5 mg/m ³ as Zr
REL	Short-term value: 10 mg/m ³ Long-term value: 5 mg/m ³ as Zr
TLV	Short-term value: 10 mg/m ³ Long-term value: 5 mg/m ³ as Zr; A4
7727-43-7 barium sulphate, natural	
PEL	Long-term value: 15* 5** mg/m ³ *total dust **respirable fraction
REL	Long-term value: 10* 5** mg/m ³ *total dust **respirable fraction
TLV	Long-term value: 5* mg/m ³ *inhalable fraction; E
1317-65-3 Limestone	
PEL	Long-term value: 15 mg/m ³
557-05-1 zinc distearate, pure	
PEL	Long-term value: 15* 5** mg/m ³ *total dust **respirable fraction
REL	Long-term value: 10* 5** mg/m ³ *total dust **respirable fraction
TLV	Long-term value: 10* 3** mg/m ³ *inhalable, **respirable particulate matter, *A4
1332-58-7 Kaolin	
PEL	Long-term value: 15* 5** mg/m ³ *total dust **respirable fraction
REL	Long-term value: 10* 5** mg/m ³ *total dust **respirable fraction
TLV	Long-term value: 2* mg/m ³ E; respirable particulate matter, A4
7778-18-9 calcium sulphate, natural	
PEL	Long-term value: 15* 5** mg/m ³ *total dust **respirable fraction
REL	Long-term value: 10* 5** mg/m ³ *total dust **respirable fraction
TLV	Long-term value: 10* mg/m ³ *as inhalable fraction
107-21-1 ethylene glycol	
TLV	Short-term value: 10** mg/m ³ , 50* ppm Long-term value: 25* ppm *vapor fraction:**inh. fraction, aerosol only, A4
WEEL	I (2)
1309-37-1 diiron trioxide	
PEL	Long-term value: 10* mg/m ³ *Fume

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REL	Long-term value: 5 mg/m ³ Dust & fume, as Fe
TLV	Long-term value: 5* mg/m ³ *Respirable particulate matter, A4
14075-53-7 potassium tetrafluoroborate	
PEL	Long-term value: 2.5 mg/m ³ as F
REL	Long-term value: 2.5 mg/m ³ as F
TLV	Long-term value: 2.5 mg/m ³ as F, A4; BEI
15096-52-3 cryolite	
PEL	Long-term value: 2.5 mg/m ³ as F
REL	Long-term value: 2.5 mg/m ³ as F
14808-60-7 Quartz (SiO₂)	
PEL	Long-term value: 0.05* mg/m ³ *resp. dust; 30mg/m ³ /%SiO ₂ +2
REL	Long-term value: 0.05* mg/m ³ *respirable dust; See Pocket Guide App. A
TLV	Long-term value: 0.025* mg/m ³ *respirable particulate matter, A2

· Ingredients with biological limit values:**14075-53-7 potassium tetrafluoroborate**

BEI	2 mg/L Medium: urine Time: prior to shift Parameter: Fluoride (background, nonspecific)
	3 mg/L Medium: urine Time: end of shift Parameter: Fluoride (background, nonspecific)

15096-52-3 cryolite

BEI	2 mg/L Medium: urine Time: prior to shift Parameter: Fluoride (background, nonspecific)
	3 mg/L Medium: urine Time: end of shift Parameter: Fluoride (background, nonspecific)

· Exposure controls**· Personal protective equipment:****· General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

· Breathing equipment: Use suitable respiratory protective device when high concentrations are present.**· Protection of hands:** Not required.

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· Eye protection:



Tightly sealed goggles

9 Physical and chemical properties

· Information on basic physical and chemical properties	
· General Information	
· Appearance:	
Form:	Belt
Color:	According to product specification
· Odor:	uncharacteristic
· Odor threshold:	Not determined.
· pH-value:	Not applicable.
· Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.
· Flash point:	Not applicable.
· Flammability (solid, gaseous):	Not determined.
· Decomposition temperature:	Not determined.
· Ignition temperature:	Product is not selfigniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
· Vapor pressure:	Not applicable.
· Density:	Not determined.
· Relative density	Not determined.
· Vapor density	Not applicable.
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with	
Water:	Insoluble.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not applicable.
Kinematic:	Not applicable.
· Solvent content:	
VOC content:	1.00 %
Solids content:	100.0 %
· Other information	No further relevant information available.

10 Stability and reactivity

- Reactivity No further relevant information available.
- Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- Possibility of hazardous reactions No dangerous reactions known.

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- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

· Information on toxicological effects

· Acute toxicity:

· LD/LC50 values that are relevant for classification:

ATE (Acute Toxicity Estimate)

Oral	LD50	10,000 mg/kg
Inhalative	LC50/4 h	7.69 mg/l

1317-65-3 Limestone

Oral	LD50	6,450 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rat)
Inhalative	LC50/4 h	3 mg/l (rat)

557-05-1 zinc distearate, pure

Oral	LD50	5,000 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rabbit)

13775-53-6 trisodium hexafluoroaluminate

Inhalative	LC50/4 h	1.5 mg/l (ATE)
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107-21-1 ethylene glycol

Oral	LD50	5,840 mg/kg (rat)
Dermal	LD50	9,430 mg/kg (rabbit)

1309-37-1 diiron trioxide

Oral	LD50	>5,000 mg/kg (rat)
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14075-53-7 potassium tetrafluoroborate

Oral	LD50	100 mg/kg (ATE)
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15096-52-3 cryolite

Inhalative	LC50/4 h	1.5 mg/l (ATE)
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· Primary chemical irritant effect:

· **on the skin:** No irritant effect.

· **on the eye:** No irritating effect.

· **Sensitization:** No sensitizing effects known.

· Additional toxicological information:

Abrasive eye irritant

Abrasive skin irritant

· Carcinogenic categories

· IARC (International Agency for Research on Cancer)

1309-37-1	diiron trioxide	3
14075-53-7	potassium tetrafluoroborate	3
14808-60-7	Quartz (SiO ₂)	1

· NTP (National Toxicology Program)

14808-60-7	Quartz (SiO ₂)	K
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· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

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12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Ecotoxical effects:**
- **Remark:** Harmful to fish
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Harmful to aquatic organisms
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:** Contact waste processors for recycling information.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

· UN-Number	
· DOT, ADN, IMDG, IATA	not regulated
· UN proper shipping name	
· DOT, ADN, IMDG, IATA	not regulated
· Transport hazard class(es)	
· DOT, ADN, IMDG, IATA	
· Class	not regulated
· Packing group	
· DOT, IMDG, IATA	not regulated
· Environmental hazards:	
· Marine pollutant:	No
· Special precautions for user	Not applicable.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· UN "Model Regulation":	not regulated

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
No further relevant information available.
- **Sara**

· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

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· Section 313 (Specific toxic chemical listings):	
7727-43-7	barium sulphate, natural
557-05-1	zinc distearate, pure
107-21-1	ethylene glycol
· TSCA (Toxic Substances Control Act):	
All components have the value ACTIVE.	
· Hazardous Air Pollutants	
107-21-1	ethylene glycol
· Proposition 65	
· Chemicals known to cause cancer:	
14808-60-7	Quartz (SiO ₂)
· Chemicals known to cause reproductive toxicity for females:	
None of the ingredients is listed.	
· Chemicals known to cause reproductive toxicity for males:	
None of the ingredients is listed.	
· Chemicals known to cause developmental toxicity:	
107-21-1	ethylene glycol
· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.	

16 Other information

To the best of our knowledge, the information contained herein is accurate. However, it does not describe a guarantee of product properties and does not establish a contractual legal relationship.

- **Department issuing SDS:** Technical Services
- **Contact:** Pablo Mendoza
- **Last revision / supersedes version:** 06/01/2024 / 4.0
- **Supersedes date:** 06/01/2022

- **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

BEI: Biological Exposure Limit

Acute Toxicity - Oral 3: Acute toxicity – Category 3

Acute Toxicity - Inhalation 4: Acute toxicity – Category 4

Skin Irritation 2: Skin corrosion/irritation – Category 2

Eye Irritation 2A: Serious eye damage/eye irritation – Category 2A

Carcinogenicity 1A: Carcinogenicity – Category 1A

Specific Target Organ Toxicity - Repeated Exposure 1: Specific target organ toxicity (repeated exposure) – Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

- *** Data compared to the previous version altered.**