

Safety Data Sheet

according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and OSHA
GHS


Printing date: 28 March 2018

Revision: 28 March 2018

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

- **1.1 Product identifier**
 - Trade name: CRYSTAL FINISHING POWDER, "T", ALUMINUM OXIDE POWDER "T"
 - Other means of identification: No other identifiers
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
 - Application of the substance / the mixture: Industrial uses.
 - Uses advised against: No further relevant information available.
- **1.3 Details of the supplier of the Safety Data Sheet**
 - **Manufacturer/Supplier:**
K.C. Abrasive Company
3140 Dodge Road
Kansas City, KS 66115
Phone: (913) 342-2900
- **1.4 Emergency telephone number:**
ChemTel Inc.
(800)255-3924 (North America)
+1 (813)248-0585 (International)

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
 - **Classification according to Regulation (EC) No 1272/2008**
Classifications listed are applicable to the OSHA GHS Hazard Communication Standard (29CFR1910.1200).
The product is not classified as hazardous according to the CLP regulation.
Carc. 2 H351 Suspected of causing cancer. Route of exposure: Inhalation.
 - **2.2 Label elements**
 - **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the Globally Harmonized System within the United States.
The product is not classified as hazardous according to the CLP regulation.
 - **Hazard pictograms**
Not applicable within the EU; applicable only for North America.
- 

GHS08
- **Signal word**
Not applicable within the EU; applicable only for North America.
Warning
 - **Hazard statements**
Not applicable within the EU; applicable only for North America.
H351 Suspected of causing cancer. Route of exposure: Inhalation.

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· **Precautionary statements**

Not applicable within the EU; applicable only for North America.

P201 Obtain special instructions before use.

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

P280 Wear protective gloves / eye protection.

P308+P313 If exposed or concerned: Get medical advice/attention.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **2.3 Other hazards** There are no other hazards not otherwise classified that have been identified.

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· **3.2 Mixtures**

· **Components:**

CAS: 1344-28-1 EINECS: 215-691-6 Reg.nr.: 01-2119529248-35-XXXX	aluminium oxide substance with a Community workplace exposure limit	50-100%
CAS: 7631-86-9 EINECS: 231-545-4 Reg.nr.: 01-2119379499-16-XXXX	silicon dioxide substance with a Community workplace exposure limit	10-20%
CAS: 1309-48-4 EINECS: 215-171-9 Index number: 025-199-09-0	magnesium oxide substance with a Community workplace exposure limit	5-10%
CAS: 13463-67-7 EINECS: 236-675-5 Reg.nr.: 01-2119489379-17-XXXX	titanium dioxide ⚠ Carc. 2, H351	1-5%
CAS: 1309-37-1 EINECS: 215-168-2 Reg.nr.: 01-2119457614-35-XXXX	diiron trioxide / iron (III) oxide substance with a Community workplace exposure limit	<1%
CAS: 1314-23-4 EINECS: 215-227-2 Reg.nr.: 01-2119486976-14-XXXX	zirconium dioxide substance with a Community workplace exposure limit	<1%
CAS: 11129-60-5 EINECS: 234-378-5	Manganese oxide substance with a Community workplace exposure limit	<1%

· **Additional information:**

For the wording of the listed Hazard Statements refer to section 16.

Classification of titanium dioxide as a carcinogen is based on the IARC 2B classification and not the EU CLP classification.

SECTION 4: First aid measures

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4.1 Description of first aid measures

After inhalation:

- Supply fresh air; consult doctor in case of complaints.
- Provide oxygen treatment if affected person has difficulty breathing.

After skin contact:

- Brush off loose particles from skin.
- Immediately wash with water and soap and rinse thoroughly.
- If skin irritation continues, consult a doctor.

After eye contact:

- Remove contact lenses if worn.
- Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing: Do not induce vomiting; call for medical help immediately.

4.2 Most important symptoms and effects, both acute and delayed

- Slight irritant effect on eyes.
- Slight irritant effect on skin and mucous membranes.
- Gastric or intestinal disorders when ingested.
- Breathing difficulty

Hazards:

- Danger of impaired breathing.
- Limited evidence of a carcinogenic effect.

4.3 Indication of any immediate medical attention and special treatment needed

- If necessary oxygen respiration treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing agents:

- The product is not flammable.
- Use fire extinguishing methods suitable to surrounding conditions.

For safety reasons unsuitable extinguishing agents: None.

5.2 Special hazards arising from the substance or mixture

- Formation of toxic gases is possible during heating or in case of fire.

5.3 Advice for firefighters

Protective equipment:

- Wear self-contained respiratory protective device.
- Wear fully protective suit.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- Use personal protective equipment as required.
- Use respiratory protective device against the effects of fumes/dust/aerosol.
- Ensure adequate ventilation
- Avoid formation of dust.

6.2 Environmental precautions Damp down dust with water spray.

6.3 Methods and material for containment and cleaning up

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- Pick up mechanically.
- Send for recovery or disposal in suitable receptacles.
- **6.4 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.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
- Prevent formation of dust.
- Any unavoidable deposit of dust must be regularly removed.
- Use only in well ventilated areas.
- Avoid breathing dust.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Requirements to be met by storerooms and receptacles:**
- Storage area should be dry and well-ventilated.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

• 8.1 Control parameters

• Ingredients with limit values that require monitoring at the workplace:

1344-28-1 aluminium oxide

WEL (Great Britain)	Long-term value: 10* 4** mg/m ³ *inhalable dust **respirable dust
PEL (USA)	Long-term value: 15*; 5** mg/m ³ *Total dust; ** Respirable fraction
REL (USA)	Long-term value: 10* 5** mg/m ³ as Al*Total dust**Respirable/pyro powd./welding f.
TLV (USA)	Long-term value: 1* mg/m ³ as Al; *as respirable fraction

7631-86-9 silicon dioxide

NIOSH REL (USA)	Long-term value: 6 mg/m ³
OSHA PEL (USA)	Long-term value: 80 mg/m ³

1309-48-4 magnesium oxide

WEL (Great Britain)	Long-term value: 10* 4** mg/m ³ (as Mg) *inhalable dust **fume and respirable dust
PEL (USA)	Long-term value: 15* mg/m ³ fume; *total particulate
TLV (USA)	Long-term value: 10* mg/m ³

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	*as inhalable fraction
13463-67-7 titanium dioxide	
WEL (Great Britain)	Long-term value: 10* 4** mg/m ³ *total inhalable **respirable
PEL (USA)	Long-term value: 15* mg/m ³ *total dust
REL (USA)	See Pocket Guide App. A
TLV (USA)	Long-term value: 10 mg/m ³ withdrawn from NIC
1309-37-1 diiron trioxide / iron (III) oxide	
WEL (Great Britain)	Short-term value: 10* mg/m ³ Long-term value: 5* 10** 4*** mg/m ³ *fume (as Fe), **total respirable, ***respirable
PEL (USA)	Long-term value: 10* 15** 5*** mg/m ³ *Fume; Rouge: **Total dust, ***respirable
REL (USA)	Long-term value: 5 mg/m ³ Dust & fume, as Fe
TLV (USA)	Long-term value: 5* mg/m ³ *as respirable fraction
1314-23-4 zirconium dioxide	
WEL (Great Britain)	Short-term value: 10 mg/m ³ Long-term value: 5 mg/m ³ as Zr
PEL (USA)	Long-term value: 5 mg/m ³ as Zr
REL (USA)	Short-term value: 10 mg/m ³ Long-term value: 5 mg/m ³ as Zr
TLV (USA)	Short-term value: 10 mg/m ³ Long-term value: 5 mg/m ³ as Zr
11129-60-5 Manganese oxide	
IOELV (EU)	Long-term value: 0,2* 0,05** mg/m ³ as Mn; *inhalable, **respirable fraction
WEL (Great Britain)	Long-term value: 0,5 mg/m ³ as Mn
PEL (USA)	Ceiling limit: 5 mg/m ³ as Mn
REL (USA)	Short-term value: 3 mg/m ³ Long-term value: 1 mg/m ³ as Mn
TLV (USA)	Long-term value: 0,02* 0,1** mg/m ³ as Mn; *respirable **inhalable fraction

8.2 Exposure controls

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• **General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
Avoid breathing dust.

• **Respiratory protection:**

Suitable respiratory protective device recommended.
Particulate mask should filter at least 99% of airborne particles.

• **Protection of hands:**

No chemical-protective gloves required.
Wear gloves for the protection against mechanical hazards according to NIOSH or EN 388.

• **Eye protection:**



Safety glasses

• **Body protection:** Protective work clothing

• **Limitation and supervision of exposure into the environment:**

No further relevant information available.

• **Risk management measures:** No further relevant information available.

SECTION 9: Physical and chemical properties

• **9.1 Information on basic physical and chemical properties**

• **Appearance**

Form: Crystalline powder

Colour: Light brown

• **Odour:** Odourless

• **Odour threshold:** Not determined.

• **pH-value:** Not applicable.

• **Melting point/freezing point:** Not determined.

• **Initial boiling point and boiling range:** 2038 °C (3.700,4 °F)

• **Flash point:** Not applicable.

• **Flammability (solid, gas):** Not determined.

• **Auto/Self-ignition temperature:** Not determined.

• **Decomposition temperature:** Not determined.

• **Explosive properties:** Product does not present an explosion hazard.

• **Explosion limits**

Lower: Not determined.

Upper: Not determined.

• **Oxidising properties** Non-oxidising.

• **Vapour pressure:** Not applicable.

• **Density:**

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Relative density:	3,97
Vapour 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.
9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
- **10.3 Possibility of hazardous reactions**
As the product is supplied it is not capable of dust explosion; however enrichment with fine dust causes risk of dust explosion.
Reacts with strong acids.
- **10.4 Conditions to avoid** Prevent formation of dust.
- **10.5 Incompatible materials** No further relevant information available.
- **10.6 Hazardous decomposition products**

Under fire conditions only:
Toxic metal oxide smoke

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:** Based on available data, the classification criteria are not met.
- **LD/LC50 values relevant for classification:** None.
- **Primary irritant effect**
- **Skin corrosion/irritation:** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation:** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation:** Based on available data, the classification criteria are not met.
- **Carcinogenic categories**

• **IARC (International Agency for Research on Cancer):**

13463-67-7 titanium dioxide

2B

• **NTP (National Toxicology Program):**

None of the ingredients are listed.

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• **OSHA-Ca (Occupational Safety & Health Administration):**

None of the ingredients are listed.

• **Probable routes of exposure:**

Eye contact.

Ingestion.

Inhalation.

Skin contact.

• **Repeated dose toxicity:** Long term inhalation of product dust may be harmful.

• **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.

• **Carcinogenicity:**

Based on IARC classifications and not the CLP classification.

Suspected of causing cancer. Route of exposure: Inhalation.

• **Reproductive toxicity:** Based on available data, the classification criteria are not met.

• **STOT-single exposure:** Based on available data, the classification criteria are not met.

• **STOT-repeated exposure:** Based on available data, the classification criteria are not met.

• **Aspiration hazard:** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

• **12.1 Toxicity**

• **Aquatic toxicity:** Generally not hazardous for water

• **12.2 Persistence and degradability** No further relevant information available.

• **12.3 Bioaccumulative potential** No further relevant information available.

• **12.4 Mobility in soil** No further relevant information available.

• **Additional ecological information:**

• **General notes:**

Negative ecological effects are, according to the current state of knowledge, not expected.

• **12.5 Results of PBT and vPvB assessment**

• **PBT:** Not applicable.

• **vPvB:** Not applicable.

• **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

• **13.1 Waste treatment methods**

• **Recommendation**

Contact waste processors for recycling information.

The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

• **Uncleaned packaging:**

• **Recommendation:** Disposal must be made according to official regulations.

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SECTION 14: Transport information

· 14.1 UN-Number	
· DOT, ADR, IMDG, IATA	Not Regulated
· 14.2 UN proper shipping name	
· DOT, ADR, IMDG, IATA	Not Regulated
· 14.3 Transport hazard class(es)	
· DOT, ADR, IMDG, IATA	
· Class	Not Regulated
· 14.4 Packing group	
· DOT, ADR, IMDG, IATA	Not Regulated
· 14.5 Environmental hazards:	
· Marine pollutant:	No
· 14.6 Special precautions for user	Not applicable.
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.

SECTION 15: Regulatory information

· 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture	
· United States (USA)	
· SARA	
· Section 355 (extremely hazardous substances):	
None of the ingredients are listed.	
· Section 313 (Specific toxic chemical listings):	
Aluminum oxide listing is only relevant to fibrous forms and is not applicable to the product as supplied.	
1344-28-1 aluminium oxide	
· TSCA (Toxic Substances Control Act):	
All ingredients are listed.	
· Proposition 65 (California):	
· Chemicals known to cause cancer:	
13463-67-7 titanium dioxide	
14808-60-7 Quartz (SiO ₂)	
· Chemicals known to cause reproductive toxicity for females:	
None of the ingredients are listed.	
· Chemicals known to cause reproductive toxicity for males:	
None of the ingredients are listed.	
· Chemicals known to cause developmental toxicity:	

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None of the ingredients are listed.

· **EPA (Environmental Protection Agency)**

11129-60-5 Manganese oxide

D

· **IARC (International Agency for Research on Cancer)**

13463-67-7 titanium dioxide

2B

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

13463-67-7 titanium dioxide

· **Canadian Domestic Substances List (DSL)**

All ingredients are listed.

· **Other regulations, limitations and prohibitive regulations**

· **Substances of very high concern (SVHC) according to REACH, Article 57**

None of the ingredients are listed.

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**

H351 Suspected of causing cancer. Route of exposure: Inhalation.

· **Abbreviations and acronyms:**

ADR: 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

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bio-accumulable, Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Carc. 2: Carcinogenicity – Category 2

· **Sources**

Website, European Chemicals Agency (echa.europa.eu)Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor-internet/registry/substreg/home/overview/home.do)Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)

Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6

Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.

Safety Data Sheets, Individual Manufacturers

SDS Prepared by:

ChemTel Inc.

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