

Safety Data Sheet

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

Printing date 12.05.2014

Revision: 12.05.2014

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

- **1.1 Product identifier**
- **Trade name: OPTICAL POWDER, CRYSTAL FINISHING POWDER, ALUMINUM OXIDE POWDER**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Industrial uses.
- **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:** (913) 342-2900

2 Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
The following Hazard Statements are applicable only according to OSHA regulations within the United States. These Statements are not applicable for the CLP regulation (1272/2008/EC) in the EU. H351.



Carc. 2 H351: Suspected of causing cancer.

The product is not classified as hazardous according to the CLP regulation.

-
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC** Not applicable.
 - **Information concerning particular hazards for human and environment:**
The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
 - **Classification system:**
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.
The classification is in accordance with the latest editions of international substances lists, and is supplemented by information from technical literature and by information provided by the company.

-
- **2.2 Label elements**
 - **Labelling according to Regulation (EC) No 1272/2008**
The following Hazard Statements are applicable only according to OSHA regulations within the United States. These Statements are not applicable for the CLP regulation (1272/2008/EC) in the EU. H351.
This product does not have a classification according to the CLP regulation.
 - **Hazard pictograms**
Not applicable within the EU; applicable only for North America.



health hazard (US GHS only)

(Contd. on page 2)

Safety Data Sheet

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GHS

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Revision: 12.05.2014

Trade name: OPTICAL POWDER, CRYSTAL FINISHING POWDER, ALUMINUM OXIDE POWDER

(Contd. of page 1)

- **Signal word**

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

WARNING

- **Hazard statements**

The following Hazard Statements are applicable only according to OSHA regulations within the United States. These Statements are not applicable for the CLP regulation (1272/2008/EC) in the EU. H351.

H351: Suspected of causing cancer.

- **Precautionary statements** Applicable only within the United States (USA)

- **Additional information:**

Safety data sheet available on request.

- **Hazard description:**

- **WHMIS-symbols:**

D2A - Very toxic material causing other toxic effects



- **NFPA ratings (scale 0 - 4)**



Health = 2

Fire = 0

Reactivity = 0

- **HMIS-ratings (scale 0 - 4)**



Health = *2

Fire = 0

Reactivity = 0

* - Indicates a long term health hazard from repeated or prolonged exposures.

- **HMIS Long Term Health Hazard Substances**

13463-67-7	titanium dioxide
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- **2.3 Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **3.2 Mixtures**

- **Description:** Mixture of substances listed below with nonhazardous additions.

- **Dangerous components:**

CAS: 1344-28-1 EINECS: 215-691-6	aluminium oxide substance with a Community workplace exposure limit	50-100%
CAS: 13463-67-7 EINECS: 236-675-5	titanium dioxide substance with a Community workplace exposure limit	1-5%

(Contd. on page 3)








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Trade name: OPTICAL POWDER, CRYSTAL FINISHING POWDER, ALUMINUM OXIDE POWDER

		(Contd. of page 2)
CAS: 7631-86-9 EINECS: 231-545-4	silicon dioxide	<1%
CAS: 1345-25-1 EINECS: 215-721-8	iron oxide substance with a Community workplace exposure limit	<1%
CAS: 1305-78-8 EINECS: 215-138-9	calcium oxide  Xi R37/38-41  Eye Dam. 1, H318  Skin Irrit. 2, H315; STOT SE 3, H335	<1%
CAS: 1309-48-4 EINECS: 215-171-9 Index number: 025-199-09-0	magnesium oxide substance with a Community workplace exposure limit	<1%
CAS: 1313-60-6 EINECS: 215-209-4 Index number: 011-003-00-1	sodium peroxide  C R35;  O R8  Ox. Sol. 1, H271  Skin Corr. 1A, H314	<1%

· **Additional information:** For the wording of the listed risk phrases refer to section 16.

4 First aid measures

4.1 Description of first aid measures

· **General information:** No special measures required.

· 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.

Gastric or intestinal disorders when ingested.

Nausea in case of ingestion.

· **Hazards** Danger of impaired breathing.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

5 Firefighting measures

5.1 Extinguishing media

· **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.

· **For safety reasons unsuitable extinguishing agents:** None.

(Contd. on page 4)

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Revision: 12.05.2014

Trade name: OPTICAL POWDER, CRYSTAL FINISHING POWDER, ALUMINUM OXIDE POWDER

(Contd. of page 3)

- **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.
- **Additional information** No further relevant information available.

6 Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Use respiratory protective device against the effects of fumes/dust/aerosol.
Ensure adequate ventilation
Avoid formation of dust.
Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:**
Do not allow to enter sewers/ surface or ground water.
Damp down dust with water spray.
- **6.3 Methods and material for containment and cleaning up:**
Pick up mechanically.
Dispose contaminated material as waste according to item 13.
- **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.

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.
Take note of emission threshold.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:**
Store away from foodstuffs.
Protect from humidity and water.
- **Further information about storage conditions:** Store in cool, dry conditions in well sealed receptacles.
- **7.3 Specific end use(s)** No further relevant information available.

(Contd. on page 5)

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Trade name: OPTICAL POWDER, CRYSTAL FINISHING POWDER, ALUMINUM OXIDE POWDER

(Contd. of page 4)

8 Exposure controls/personal protection

· **Additional information about design of technical facilities:** No further data; see item 7.

· 8.1 Control parameters

· **Ingredients with limit values that require monitoring at the workplace:**

1344-28-1 aluminium oxide

PEL (USA)	Long-term value: 15*; 15** mg/m ³ *Total dust; ** Respirable fraction
REL (USA)	Long-term value: 10* 5** mg/m ³ *Total dust **Respirable fraction
TLV (USA)	Long-term value: 1* mg/m ³ as Al; *as respirable fraction
EL (Canada)	Long-term value: 10 mg/m ³
EV (Canada)	Long-term value: 10 mg/m ³ total dust

13463-67-7 titanium dioxide

PEL (USA)	Long-term value: 15* mg/m ³ *total dust
REL (USA)	See Pocket Guide App. A
TLV (USA)	Long-term value: (10) NIC-1* mg/m ³ *respirable fraction, NIC-A3
EL (Canada)	Long-term value: 10 mg/m ³ IARC 2B
EV (Canada)	Long-term value: 10 mg/m ³ total dust

1309-48-4 magnesium oxide

PEL (USA)	Long-term value: 15* mg/m ³ fume; *total particulate
TLV (USA)	Long-term value: 10* mg/m ³ *as inhalable fraction
EL (Canada)	Short-term value: 10** mg/m ³ Long-term value: 10* 3** mg/m ³ *inhalable fume;**respirable dust and fume
EV (Canada)	Long-term value: 10 mg/m ³ inhalable

1305-78-8 calcium oxide

PEL (USA)	Long-term value: 5 mg/m ³
REL (USA)	Long-term value: 2 mg/m ³
TLV (USA)	Long-term value: 2 mg/m ³
EL (Canada)	Long-term value: 2 mg/m ³
EV (Canada)	Long-term value: 2 mg/m ³

(Contd. on page 6)

Safety Data Sheet

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

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Revision: 12.05.2014

Trade name: OPTICAL POWDER, CRYSTAL FINISHING POWDER, ALUMINUM OXIDE POWDER

(Contd. of page 5)

1345-25-1 iron oxide

REL (USA)	Long-term value: 1 mg/m ³ as Fe
TLV (USA)	Long-term value: 1 mg/m ³ as Fe

- **DNELs** No further relevant information available.
- **PNECs** No further relevant information available.
- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Avoid close or long term contact with the skin.
Avoid contact with the eyes.
Do not inhale dust / smoke / mist.
The usual precautionary measures are to be adhered to when handling chemicals.
Wash hands before breaks and at the end of work.
- **Respiratory protection:**
Suitable respiratory protective device recommended.
Use suitable respiratory protective device in case of insufficient ventilation.
Use respiratory protection when grinding or cutting material.
- **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**
See Section 7 for additional information.
No further relevant information available.

9 Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

Form:	Crystalline powder
Colour:	Light brown
Odour:	Odourless
Odour threshold:	Not determined.
pH-value:	Not applicable.

(Contd. on page 7)

Safety Data Sheet

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

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Revision: 12.05.2014

Trade name: OPTICAL POWDER, CRYSTAL FINISHING POWDER, ALUMINUM OXIDE POWDER

(Contd. of page 6)

- **Change in condition**
 - Melting point/Melting range:** 3700 °F / 2038 °C
 - Boiling point/Boiling range:** 2980 °C
- **Flash point:** Not applicable.
- **Flammability (solid, gaseous):** Not determined.
- **Auto/Self-ignition temperature:** Not determined.
- **Decomposition temperature:** Not determined.
- **Self-igniting:** Product is not self-igniting.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Explosion limits:**
 - Lower:** Not determined.
 - Upper:** Not determined.
- **Vapour pressure:** Not applicable.
- **Density at 20 °C:** 3,9 g/cm³
- **Relative density** Not determined.
- **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.
- **Solvent content:**
 - Organic solvents:** 0,0 %
 - Solids content:** 98,7 %
- **9.2 Other information** No further relevant information available.

10 Stability and reactivity

- **10.1 Reactivity**
- **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 and alkali.
- **10.4 Conditions to avoid** Moisture.

(Contd. on page 8)

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GHS

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Revision: 12.05.2014

Trade name: OPTICAL POWDER, CRYSTAL FINISHING POWDER, ALUMINUM OXIDE POWDER

(Contd. of page 7)

- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** Toxic metal oxide smoke

11 Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** Slight irritant effect on skin and mucous membranes.
- **on the eye:** Slight irritant effect on eyes.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
 - Carcinogenic if inhaled.
 - Suspected of causing cancer.
- **Repeated dose toxicity:** May cause damage to organs through prolonged or repeated exposure.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):**
 - Based on IARC classifications and not the CLP classification.

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.

13 Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
 - Smaller quantities can be disposed of with household waste.
 - Contact waste processors for recycling information.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

(Contd. on page 9)

Safety Data Sheet

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GHS

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Trade name: OPTICAL POWDER, CRYSTAL FINISHING POWDER, ALUMINUM OXIDE POWDER

(Contd. of page 8)

14 Transport information

- **14.1 UN-Number**
- DOT, ADR, ADN, IMDG, IATA Not Regulated
- **14.2 UN proper shipping name**
- DOT, ADR, ADN, IMDG, IATA Not Regulated
- **14.3 Transport hazard class(es)**
- DOT, ADR, ADN, 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 MARPOL73/78 and the IBC Code** Not applicable.
- **UN "Model Regulation":** -

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 is listed.

· **Section 313 (Specific toxic chemical listings):**

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

· **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:**

None of the ingredients is listed.

· **Carcinogenic Categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

(Contd. on page 10)

Safety Data Sheet

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GHS

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Trade name: OPTICAL POWDER, CRYSTAL FINISHING POWDER, ALUMINUM OXIDE POWDER

(Contd. of page 9)

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

13463-67-7	titanium dioxide	2B
7631-86-9	silicon dioxide	3

· **TLV (Threshold Limit Value established by ACGIH)**

1344-28-1	aluminium oxide	A4
13463-67-7	titanium dioxide	A4
1309-48-4	magnesium oxide	A4

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

13463-67-7	titanium dioxide
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· **Canada**

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

All ingredients are listed.

· **Canadian Ingredient Disclosure list (limit 0.1%)**

None of the ingredients is listed.

· **Canadian Ingredient Disclosure list (limit 1%)**

1344-28-1	aluminium oxide
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· **Other regulations, limitations and prohibitive regulations**

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

None of the ingredients is listed.

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

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**

H271 May cause fire or explosion; strong oxidiser.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H335 May cause respiratory irritation.

R35 Causes severe burns.

R37/38 Irritating to respiratory system and skin.

R41 Risk of serious damage to eyes.

R8 Contact with combustible material may cause fire.

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport 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

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

ACGIH: American Conference of Governmental Industrial Hygienists

(Contd. on page 11)

Safety Data Sheet
according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and
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Revision: 12.05.2014

Trade name: OPTICAL POWDER, CRYSTAL FINISHING POWDER, ALUMINUM OXIDE POWDER

(Contd. of page 10)

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)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
WHMIS: Workplace Hazardous Materials Information System (Canada)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
Ox. Sol. 1: Oxidising Solids, Hazard Category 1
Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

• **Sources**

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