

according to 29 CFR 1910.1200(g)

JIS Z8901 Classes 7, 8, 11 Kanto Loam

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1. Identification

Product identifier

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Details of the supplier of the safety data sheet

Company name: Powder Technology Inc.

Street: 1300 Grey Fox Road

Place: USA-55112 Arden Hills, MN

Telephone: +1 952 894 -8737

e-mail: sales@powdertechnologyinc.com
Internet: http://www.powdertechnologyinc.com

Emergency phone number: +1 952 894 -8737

Further Information

This safety data sheet was created by: ECI EnviroConsult Ingenieurbüro Dr. Lux e.K.

2. Hazard(s) identification

Classification of the chemical

Hazard categories: Carcinogenicity: Carc. 1A Carcinogenicity: Carc. 2 Hazard Statements:

May cause cancer by inhalation Suspected of causing cancer

Label elements

Signal word: Danger
Pictograms: health hazard



Hazard statements

May cause cancer by inhalation Suspected of causing cancer

Precautionary statements

Obtain special instructions before use.

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

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

If exposed or concerned: Get medical advice/attention.

Store locked up.

Dispose of this material and its container to hazardous or special waste collection point.

Hazards not otherwise classified

No information available.

3. Composition/information on ingredients

Mixtures

Chemical characterization

powdered minerals



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Hazardous components

CAS No	Components	Quantity
14808-60-7	silica (fine dust)	34-40 %
1344-28-1	aluminium oxide	26-32 %
1309-37-1	Iron(III) oxide (hematite)	17-23 %
1309-48-4	magnesium oxide	3-7 %
13463-67-7	titanium dioxide	0-4 %
1305-78-8	calcium oxide (mineral)	0-3 %
12136-45-7	potassium oxide (mineral)	2-5 %

4. First-aid measures

Description of first aid measures

After inhalation

Provide fresh air. Medical care may be necessary. In case of irregular breathing or respiratory arrest provide artificial respiration. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

After contact with skin

Wash with plenty of water. In case of skin irritation, seek medical treatment.

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. In case of eye irritation consult an ophthalmologist.

After ingestion

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Do NOT induce vomiting.

Most important symptoms and effects, both acute and delayed

May cause cancer by inhalation. A repeated, excessive dust exposure can cause pneumoconiosis. Irritating to eyes.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

Suitable extinguishing media: Foam. Dry extinguishing powder. Atomized water. Carbon dioxide (CO2)

Unsuitable extinguishing media

High power water jet.

Specific hazards arising from the chemical

Non-flammable.

Special protective equipment and precautions for fire-fighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

Additional information

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

6. Accidental release measures



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Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Avoid generation of dust. Do not breathe dust. Avoid contact with skin, eyes and clothes. Use personal protection equipment. Remove all sources of ignition. Remove persons to safety.

Environmental precautions

Do not allow to enter into surface water or drains.

Methods and material for containment and cleaning up

Take up mechanically. Treat the recovered material as prescribed in the section on waste disposal . Ventilate affected area. Collect in closed containers for disposal.

Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

7. Handling and storage

Precautions for safe handling

Advice on safe handling

If handled uncovered, arrangements with local exhaust ventilation have to be used. Avoid generation of dust. Do not breathe dust. Wear personal protection equipment. Avoid contact with skin, eyes and clothes. Avoid: Generation/formation of dust

Advice on protection against fire and explosion

No special fire protection measures are necessary.

Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaustion at critical locations.

Advice on storage compatibility

No special measures are necessary.

8. Exposure controls/personal protection

Control parameters

Exposure limits

CAS No.	Substance	ppm	mg/m³	f/cc	Category	Origin
1305-78-8	Calcium oxide	-	5		TWA (8 h)	PEL
		=	2		TWA (8 h)	REL
1309-37-1	Iron oxide dust and fume (as Fe)	=	5		TWA (8 h)	REL
1309-37-1	Iron oxide fume	=	10		TWA (8 h)	PEL
1309-48-4	Magnesium oxide fume Total Particulate	=	15		TWA (8 h)	PEL
14808-60-7	Silica, crystalline (as respirable dust)	-	0.05		TWA (8 h)	REL
14808-60-7	Silica, crystalline quartz, total dust	=	(Z-3)		TWA (8 h)	PEL
13463-67-7	Titanium dioxide Total dust	=	15		TWA (8 h)	PEL
1344-28-1	alpha-Alumina Respirable fraction	-	5		TWA (8 h)	PEL

Exposure controls

Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe



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dust. If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means.

Protective and hygiene measures

Do not breathe dust. Avoid generation of dust. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

Workspaces have to be equipped with eye shower and safety showers.

Eye/face protection

Wear eye/face protection.

Suitable eye protection: Dust protection goggles.

Hand protection

Hand protection: not required.

Skin protection

Wear suitable protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection. Suitable respiratory protective equipment: particulates filter device (DIN EN 143). Filtering device (full mask or mouthpiece) with filter: FFP2 / N95; HEPA

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state: solid
Color: red brown
Odor: odourless

Test method

pH-Value: not determined

Changes in the physical state

Melting point/freezing point:

Initial boiling point and boilingrange:

2226 °C

Flash point:

not determined

2226 °C

not applicable

Flammability

Solid: not applicable
Gas: not applicable

Auto-ignition temperature

Solid: not determined
Gas: not applicable

Decomposition temperature: not determined

Oxidizing properties

Not oxidizing.

Density: 2,9 -3,1 g/cm³ Water solubility: insoluble

Solubility in other solvents

not determined

Partition coefficient: not determined
Vapour density: not determined

Other information



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Solid content: 100,00 %

10. Stability and reactivity

Reactivity

No hazardous reaction when handled and stored according to provisions.

Chemical stability

Stability: Stable

The product is stable under storage at normal ambient temperatures.

Possibility of hazardous reactions

Hazardous reactions: Will not occur

No known hazardous reactions.

Conditions to avoid

moisture. heat.

Incompatible materials

Acid.

Hazardous decomposition products

In case of fire may be liberated:

11. Toxicological information

Information on toxicological effects

Route(s) of Entry

inhalation

Carcinogenicity (NTP): Silica, Crystalline (Respirable Size) is listed in group Known.

Carcinogenicity (IARC): Silica, crystalline (inhaled in the form of quartz or cristobalite from occupational

sources) (CAS 14808-60-7) is listed in group 1. Titanium dioxide (CAS

13463-67-7) is listed in group 2B.

12. Ecological information

Ecotoxicity

The product is not: Ecotoxic.

Persistence and degradability

The product has not been tested.

Bioaccumulative potential

The product has not been tested.

Mobility in soil

The product has not been tested.

Other adverse effects

No information available.

Further information

13. Disposal considerations

Waste treatment methods

Advice on disposal

Dispose of waste according to applicable legislation.



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Contaminated packaging

Wash with plenty of water. Completely emptied packages can be recycled.

14. Transport information

US DOT 49 CFR 172.101

Proper shipping name: Not a hazardous material with respect to these transport regulations.

Marine transport (IMDG)

UN number:No dangerous good in sense of this transport regulation.UN proper shipping name:No dangerous good in sense of this transport regulation.Transport hazard class(es):No dangerous good in sense of this transport regulation.Packing group:No dangerous good in sense of this transport regulation.

Air transport (ICAO)

UN number:No dangerous good in sense of this transport regulation.UN proper shipping name:No dangerous good in sense of this transport regulation.Transport hazard class(es):No dangerous good in sense of this transport regulation.Packing group:No dangerous good in sense of this transport regulation.

Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

Special precautions for user

No information available.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not applicable

15. Regulatory information

U.S. Regulations

National Inventory TSCA

All substances in this product are listed in the TSCA inventory.

National regulatory information

SARA Section 311/312 Hazards:

silica (fine dust) (14808-60-7): Delayed (chronic) health hazard titanium dioxide (13463-67-7): Delayed (chronic) health hazard

SARA Section 313 Toxic release inventory:

Aluminum oxide (fibrous forms) (1344-28-1): De minimis limit = 1.0 %, Reportable threshold = Standard

State Regulations

Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65, State of California)

This product contains no chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

16. Other information

Hazardous Materials Information Label (HMIS)

Health: *2
Flammability: 0
Physical Hazard: 0



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NFPA Hazard Ratings

Health: 2
Flammability: 0
Reactivity: 0

Unique Hazard:

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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

IATA: International Air Transport Association

GHS: Globally Harmonized 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 LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

Other data

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)