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Japan / English

**1. PRODUCT AND COMPANY IDENTIFICATION**Product identifier

**Product Name** Aluminum Oxide Powder

**Product Code(s)** 40-6425-400-080, 40-6430-600-080, 40-6603-030-080, 40-6605-050-080,  
40-6609-095-080, 40-6612-125-080

**(M)SDS Number** 1339775\_J

Other means of identification

**Synonyms** No information available

**Registration Number** No information available

Recommended use of the chemical and restrictions on use

**Recommended Use** Laboratory Use Only

**Uses advised against** No information available

Details of the supplier of the safety data sheet

**Manufacturer** Buehler

**Manufacturer Address** Loop-X 6th Floor 3-9-15  
kaigan Minato-ku, Tokoyo 108-0022  
www.buehler.com/Japan

**Phone number** +81 (0)3 5439 5077

**E-mail Address** info.japan@buehler.com

Emergency telephone number

Global Access Code: 334545  
Asia Pacific: +1 760 476 3960 Americas: +1 760 476 3962  
Middle East/Africa: +1 760 476 3959 Europe: +1 760 476 3961  
Japan: +81 36 8908677

**2. HAZARDS IDENTIFICATION**GHS Classification

Serious eye damage/eye irritation	Category 1
Carcinogenicity	Category 2
Specific target organ toxicity (repeated exposure)	Category 2
Category 2 Respiratory system.	

**Label elements****Signal word****Danger****Hazard statements**

H318 - Causes serious eye damage

H351 - Suspected of causing cancer

H335 - May cause respiratory irritation

H335 - May cause respiratory irritation

H373 - May cause damage to the following organs through prolonged or repeated exposure: Respiratory system.

**Precautionary Statements - Prevention**

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

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

Wash face, hands and any exposed skin thoroughly after handling

Do not eat, drink or smoke when using this product

Use only outdoors or in a well-ventilated area

**Precautionary Statements - Response**

IF exposed or concerned: Get medical advice/attention

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

Immediately call a POISON CENTER or doctor

IF INHALED: Remove person to fresh air and keep comfortable for breathing

Call a POISON CENTER or doctor if you feel unwell

**Precautionary Statements - Storage**

Store locked up

Store in a well-ventilated place. Keep container tightly closed

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Other hazards**

Not applicable

**3. COMPOSITION/INFORMATION ON INGREDIENTS****Substance**

Not applicable

**Mixture**

Chemical name	Weight-%	Inventory - Japan - Existing and New Chemical Substances (ENCS)	ISHL No.	CAS No
Aluminum oxide	90 - 100%	(1)-23	No information available	1344-28-1
Titanium dioxide	0 - 10%	(5)-5225,(1)-558	No information available	13463-67-7
Iron oxide	0 - 10%	(5)-5188,(1)-357	No information available	1309-37-1
Magnesium oxide	< 0.5%	No information available	No information available	1309-48-4

Calcium oxide	< 0.6%	No information available	No information available	1305-78-8
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**Pollutant Release and Transfer Registry (PRTR)**

Not applicable.

**Industrial Safety and Health Law**

ISHL Notifiable Substances - information (safety data sheet) to be supplied; Industrial Safety and Health Law enforcement order Table 9 (related to Industrial Safety and Health Law article 57-2 and ISHL Ordinance Article 34-2-4)

Chemical name	ISHL Notifiable Substances	Threshold Values (%)
Aluminum oxide 1344-28-1	ISHL Notifiable Substances	1
Titanium dioxide 13463-67-7	ISHL Notifiable Substances	0.1
Iron oxide 1309-37-1	ISHL Notifiable Substances	1

**Poisonous and Deleterious Substances Control Law** Not applicable

## 4. FIRST AID MEASURES

**First aid measures****General advice**

Immediate medical attention is required. Show this safety data sheet to the doctor in attendance. IF exposed or concerned: Get medical advice/attention.

**Inhalation**

Remove to fresh air. Get medical attention immediately if symptoms occur. IF exposed or concerned: Get medical advice/attention.

**Eye contact**

Get immediate medical advice/attention. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area.

**Skin contact**

Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.

**Ingestion**

Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician.

**Symptoms**

Burning sensation.

**Self-protection of the first aider  
Note to physicians**

Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8). Treat symptomatically.

## 5. FIRE-FIGHTING MEASURES

**Flammable Properties**

Not flammable.

**Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable extinguishing media**

No information available.

**Specific hazards arising from the chemical**

No information available.

**Hazardous Combustion Products**

Carbon oxides.

**Special Extinguishing Media**

Cool drums with water spray.

**Special protective equipment for fire-fighters** Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions** Avoid contact with skin, eyes or clothing. Use personal protective equipment as required. Ensure adequate ventilation. Evacuate personnel to safe areas.

**Other Information** Refer to protective measures listed in Sections 7 and 8.

**For emergency responders** Use personal protection recommended in Section 8.

**Environmental precautions** Prevent further leakage or spillage if safe to do so.

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Pick up and transfer to properly labeled containers.

**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

**Reference to other sections** See section 8 for more information. See section 13 for more information.

## 7. HANDLING AND STORAGE

### Handling

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Ensure adequate ventilation. Avoid breathing vapors or mists. In case of insufficient ventilation, wear suitable respiratory equipment.

### Storage

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Keep out of the reach of children.

**Incompatible materials** Strong acids. Strong bases. Strong oxidizing agents.

**General hygiene considerations** Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure guidelines

Chemical name	Japan	ISHL Working Environmental Evaluation Standards - Administrative Control Levels	ACGIH TLV
Aluminum oxide 1344-28-1	TWA: 2 mg/m <sup>3</sup> TWA: 0.5 mg/m <sup>3</sup>	-	TWA: 1 mg/m <sup>3</sup> respirable fraction
Titanium dioxide 13463-67-7	TWA: 0.3 mg/m <sup>3</sup>	-	TWA: 10 mg/m <sup>3</sup>
Iron oxide 1309-37-1	-	-	TWA: 5 mg/m <sup>3</sup> respirable fraction

**Biological occupational exposure limits** Not applicable

<b>Engineering controls</b>	Showers Eyewash stations Ventilation systems.
<b><u>Personal Protective Equipment</u></b>	
<b>Eye/face protection</b>	Tight sealing safety goggles.
<b>Skin and body protection</b>	Wear suitable protective clothing.
<b>Hand protection</b>	Wear suitable gloves.
<b>Respiratory protection</b>	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
<b>Environmental exposure controls</b>	No information available.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Physical and Chemical Properties

<b>Physical state</b>	Powder(s)
<b>Appearance</b>	Gray
<b>Odor</b>	Odorless
<b>Color</b>	No information available
<b>Odor Threshold</b>	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks Method</u>
pH	No data available	None known
Melting / freezing point	No data available	None known
Boiling point / boiling range	No data available	None known
Flash Point	No data available	None known
Evaporation Rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air	No data available	None known
Upper flammability limit	No data available	
Lower flammability limit	No data available	
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Relative density	No data available	None known
Water Solubility	Insoluble	
Solubility(ies)	No data available	None known
Partition coefficient: n-octanol/water	No data available	None known
Autoignition temperature	No data available	None known
Decomposition temperature	No data available	None known
Kinematic viscosity	No data available	None known
Viscosity	No data available	None known
Explosive properties	No information available	
Oxidizing properties	No information available	

### Other Information

<b>Softening Point</b>	No information available
<b>Molecular Weight</b>	No information available
<b>VOC Content (%)</b>	No information available
<b>Liquid Density</b>	No information available
<b>Bulk Density</b>	No information available
<b>Particle Size</b>	No information available
<b>Particle Size Distribution</b>	No information available

## 10. STABILITY AND REACTIVITY

<b>Reactivity</b>	No information available.
<b>Stability</b>	Stable under normal conditions.
<b>Explosion Data</b>	
<b>Sensitivity to Mechanical Impact</b>	None
<b>Sensitivity to Static Discharge</b>	None
<b>Possibility of hazardous reactions</b>	None under normal processing.
<b>Hazardous Polymerization</b>	Hazardous polymerization does not occur.
<b>Incompatible materials</b>	Strong acids. Strong bases. Strong oxidizing agents.
<b>Hazardous Decomposition Products</b>	Carbon oxides.

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

#### Product Information

<b>Inhalation</b>	Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.
<b>Eye contact</b>	Specific test data for the substance or mixture is not available. Severely irritating to eyes. Causes serious eye damage. May cause burns. May cause irreversible damage to eyes.
<b>Skin contact</b>	Specific test data for the substance or mixture is not available. May cause irritation. Causes mild skin irritation.
<b>Ingestion</b>	Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.
<b>Symptoms</b>	Redness. Burning. May cause blindness.

### Numerical measures of toxicity - Product Information

#### Unknown acute toxicity

- 5.5 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
- 93.5 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
- 93.5 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)
- 99.5 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)
- 99.5 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

### Numerical measures of toxicity - Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Aluminum oxide 1344-28-1	> 5000 mg/kg ( Rat )	-	-
Titanium dioxide 13463-67-7	> 10000 mg/kg ( Rat )	-	-
Iron oxide 1309-37-1	> 10000 mg/kg ( Rat )	-	-

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

<b>Skin corrosion/irritation</b>	May cause skin irritation.
<b>Serious eye damage/eye irritation</b>	Classification based on data available for ingredients. Causes burns. Risk of serious damage to eyes.
<b>Respiratory or skin sensitization</b>	No information available.
<b>Germ cell mutagenicity</b>	No information available.
<b>Carcinogenicity</b>	Classification based on data available for ingredients. Contains a known or suspected carcinogen.

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical name	GHS-Carcinogenicity	IARC
Titanium dioxide 13463-67-7	2	Group 2B
Iron oxide 1309-37-1		Group 3

**Legend:**

- IARC (International Agency for Research on Cancer)
- Group 2B - Possibly Carcinogenic to Humans
- Group 3 - Not Classifiable as to Carcinogenicity in Humans

<b>STOT - single exposure</b>	May cause respiratory irritation.
<b>STOT - repeated exposure</b>	No information available.
<b>Target Organ Effects</b>	Respiratory system. Eyes. Skin. Gastrointestinal tract (GI). Lungs.
<b>Aspiration hazard</b>	No information available.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

**Percentage for unknown hazards** 99.5 % of the mixture consists of component(s) of unknown hazards to the aquatic environment.

**Ecotoxicity** .

**Persistence and Degradability** No information available.

**Bioaccumulation** There is no data for this product.

**Mobility in soil** No information available.

**Mobility** No information available.

**Other adverse effects** No information available.

## 13. DISPOSAL CONSIDERATIONS

<b>Waste from residues/unused products</b>	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
<b>Contaminated packaging</b>	Do not reuse empty containers.

## 14. TRANSPORT INFORMATION

<b>IMDG/IMO</b>	NOT REGULATED
<b>ADR</b>	NOT REGULATED
<b>IATA</b>	NOT REGULATED
<b>Proper Shipping Name</b>	NON REGULATED
<b>Japan Hazard Class</b>	N/A

## 15. REGULATORY INFORMATION

### Safety, health and environmental regulations/legislation specific for the substance or mixture

#### National Regulations

##### Japan

#### **Pollutant Release and Transfer Registry (PRTR)**

Not applicable

#### **Industrial Safety and Health Law**

##### **Harmful Substances Whose Names Are to be Indicated on the Label**

Harmful Substances - names to be indicated on the label; Industrial Safety and Health Law enforcement order Table 9 (related to Industrial Safety and Health Law article 57 and ISHL Ordinance Article 33)

##### **ISHL Notifiable Substances**

ISHL Notifiable Substances - information (safety data sheet) to be supplied; Industrial Safety and Health Law enforcement order Table 9 (related to Industrial Safety and Health Law article 57-2 and ISHL Ordinance Article 34-2-4)

#### **Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. (CSCL)**

Not applicable

#### **Water Pollution Control Act**

Designated substance may cause adverse effects to human health or the living environment per Water Pollution Control Law article 2 and Enforcement Order article 3-3

#### **Waterworks (Water Supply) Act**

Waterworks (Water Supply) Act article 4 legally binding water quality standards  
Waterworks (Water Supply) Act article 4 water quality guidelines

#### International Regulations

**Ozone-depleting substances (ODS)** Not applicable

**Persistent Organic Pollutants** Not applicable

**Export Notification requirements** Not applicable

#### International Inventories



<b>TSCA</b>	Contact supplier for inventory compliance status.
<b>DSL/NDSL</b>	Contact supplier for inventory compliance status.
<b>EINECS/ELINCS</b>	Contact supplier for inventory compliance status.
<b>ENCS</b>	Contact supplier for inventory compliance status.
<b>KECL</b>	Contact supplier for inventory compliance status.
<b>PICCS</b>	Contact supplier for inventory compliance status.
<b>AICS</b>	Contact supplier for inventory compliance status.

**Legend**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

## 16. OTHER INFORMATION

**Prepared By** Product Stewardship  
23 British American Blvd.  
Latham, NY 12110  
1-800-572-6501

**Revision Date** 09-Aug-2016

**Revision Note** No information available

**Key or legend to abbreviations and acronyms used in the safety data sheet**

**Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	-	Skin designation
C	Carcinogen		

**Disclaimer**

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**End of Safety Data Sheet**