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Japan / English

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

**Product Name** MasterMet 2  
**Product Code(s)** 40-6380-006, 40-6380-064  
**(M)SDS Number** 1341314\_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**

Reproductive toxicity	Category 2
Specific target organ toxicity (repeated exposure)	Category 2
Category 2 Kidneys, Liver.	

**Label elements**

**Signal word****Warning****Hazard statements**

H361 - Suspected of damaging fertility or the unborn child

H373 - May cause damage to organs through prolonged or repeated exposure

H373 - May cause damage to the following organs through prolonged or repeated exposure: Kidneys, Liver.

**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

**Precautionary Statements - Response**

IF exposed or concerned: Get medical advice/attention

**Precautionary Statements - Storage**

Store locked up

**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
Polyethylene glycol	10 - 30%	No information available	No information available	25322-68-3
Silica	10 - 30%	(1)-548	No information available	7631-86-9
Diethylene glycol	1 - 5%	No information available	No information available	111-46-6

**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 (%)
Silica 7631-86-9	ISHL Notifiable Substances	0.1

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

#### 4. FIRST AID MEASURES

##### First aid measures

<b>General advice</b>	Show this safety data sheet to the doctor in attendance.
<b>Inhalation</b>	Remove to fresh air.
<b>Eye contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
<b>Skin contact</b>	Wash skin with soap and water.
<b>Ingestion</b>	Clean mouth with water and drink afterwards plenty of water.
<b>Symptoms</b>	No information available.
<b>Note to physicians</b>	Treat symptomatically.

#### 5. FIRE-FIGHTING MEASURES

<b>Flammable Properties</b>	Not flammable.
<b>Suitable Extinguishing Media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<b>Unsuitable extinguishing media</b>	No information available.
<b>Specific hazards arising from the chemical</b>	No information available.
<b>Hazardous Combustion Products</b>	Carbon oxides.
<b>Special Extinguishing Media</b>	Cool drums with water spray.
<b>Special protective equipment for fire-fighters</b>	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

#### 6. ACCIDENTAL RELEASE MEASURES

<b>Personal precautions</b>	Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas.
<b>Other Information</b>	Refer to protective measures listed in Sections 7 and 8.
<b>For emergency responders</b>	Use personal protection recommended in Section 8.
<b>Environmental precautions</b>	See Section 12 for additional Ecological Information.
<b>Methods for containment</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for cleaning up</b>	Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.
<b>Prevention of secondary hazards</b>	Clean contaminated objects and areas thoroughly observing environmental regulations.
<b>Reference to other sections</b>	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. Remove contaminated clothing and shoes. Ensure adequate ventilation.

### Storage

**Storage Conditions** Store locked up.

**General hygiene considerations** 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** This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

**Biological occupational exposure limits** Not applicable

**Engineering controls** Showers  
Eyewash stations  
Ventilation systems.

### Personal Protective Equipment

**Eye/face protection** No special protective equipment required.

**Skin and body protection** Wear suitable protective clothing.

**Hand protection** Wear suitable gloves.

**Respiratory protection** No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**Environmental exposure controls** No information available.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Physical and Chemical Properties

**Physical state** Slurry  
**Appearance** White  
**Odor** Odorless  
**Color** No information available  
**Odor Threshold** No information available

<u>Property</u>	<u>Values</u>	<u>Remarks Method</u>
pH	UNKNOWN	
Melting / freezing point	No data available	None known
Boiling point / boiling range	No data available	
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		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	
Water Solubility	No data available	
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**

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

## 10. STABILITY AND REACTIVITY

Reactivity	No information available.
Stability	Stable under normal conditions.
Explosion Data	
Sensitivity to Mechanical Impact	None
Sensitivity to Static Discharge	None
Possibility of hazardous reactions	None under normal processing.
Hazardous Polymerization	Hazardous polymerization does not occur.
Incompatible materials	None known based on information supplied.
Hazardous Decomposition Products	Carbon oxides.

## 11. TOXICOLOGICAL INFORMATION

**Acute Toxicity****Product Information**

Inhalation	Specific test data for the substance or mixture is not available.
Eye contact	Specific test data for the substance or mixture is not available.
Skin contact	Specific test data for the substance or mixture is not available.
Ingestion	Specific test data for the substance or mixture is not available.
Symptoms	No information available.

**Numerical measures of toxicity - Product Information**

**Unknown acute toxicity**

- 30 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
- 30 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
- 35 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)
- 35 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)
- 35 % 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
Silica 7631-86-9	> 5000 mg/kg ( Rat )	> 2000 mg/kg ( Rabbit )	> 2.2 mg/L ( Rat ) 1 h
Diethylene glycol 111-46-6	= 12565 mg/kg ( Rat )	= 11890 mg/kg ( Rabbit )	-

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

<b>Skin corrosion/irritation</b>	No information available.
<b>Serious eye damage/eye irritation</b>	No information available.
<b>Respiratory or skin sensitization</b>	No information available.
<b>Germ cell mutagenicity</b>	No information available.
<b>Carcinogenicity</b>	No information available.

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

Chemical name	GHS-Carcinogenicity	IARC
Silica 7631-86-9		Group 3

**Legend:**

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

<b>Reproductive toxicity</b>	Classification based on data available for ingredients. Contains a known or suspected reproductive toxin.
<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	No information available.
<b>Target Organ Effects</b>	Eyes. Respiratory system. Kidney. Liver.
<b>Aspiration hazard</b>	No information available.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

**Percentage for unknown hazards** 30 % of the mixture consists of component(s) of unknown hazards to the aquatic environment.

**Ecotoxicity**

Chemical name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)

Polyethylene glycol	-	24h LC50: > 5000 mg/L (Carassius auratus)	EC50 = 100000 mg/L 15 min	-
Silica	72h EC50: = 440 mg/L (Pseudokirchneriella subcapitata)	96h LC50: = 5000 mg/L (Brachydanio rerio)	-	48h EC50: = 7600 mg/L
Diethylene glycol	-	96h LC50: = 75200 mg/L (Pimephales promelas)	EC50 = 29228 mg/L 15 min	48h EC50: = 84000 mg/L

**Persistence and Degradability** No information available.

**Bioaccumulation**

#### Component Information

Chemical name	Log Pow
Diethylene glycol	-1.98

**Mobility in soil** No information available.

**Mobility** No information available.

**Other adverse effects** No information available.

### 13. DISPOSAL CONSIDERATIONS

**Waste from residues/unused products** Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging** Do not reuse empty containers.

### 14. TRANSPORT INFORMATION

**IMDG/IMO** NOT REGULATED

**ADR** NOT REGULATED

**IATA** NOT REGULATED  
**Proper Shipping Name** NON REGULATED

**Japan**  
**Hazard Class** 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)

**Fire Service Law:**

Verify that requirements related to using, handling, and storing substances subject to prohibition, authorization or restriction are met

Chemical name	Fire service law group	Hazardous material	Hazard rank
Diethylene glycol 111-46-6	4	Flammable liquids	III

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

Not applicable

**Air Pollution Control Law**

Air pollutants with regulated emissions standards, Air Pollution Control Act article 3  
Volatile organic compound per Air Pollution Control Law article 2, paragraph 4

**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**

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**Revision Date** 03-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**