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Japan / English

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

**Product Name** MetaDi Fluid  
**Product Code(s)** 40-6016, 40-6032, 40-6064-085  
**(M)SDS Number** 1352984\_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  
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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 2
Reproductive toxicity	Category 1B

Label elements

**Signal word****Danger****Hazard statements**

H319 - Causes serious eye irritation

H360 - May damage fertility or the unborn child if swallowed

**Precautionary Statements - Prevention**

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

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

Wash hands thoroughly after handling

**Precautionary Statements - Response**

Get medical advice/attention if you feel unwell

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

If eye irritation persists: Get medical advice/attention

**Precautionary Statements - Storage**

Store in a well-ventilated place

**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	Percent	Inventory - Japan - Existing and New Chemical Substances (ENCS)	ISHL No.	CAS-No
Water	60 - 80%	No information available	No information available	7732-18-5
Dipropylene glycol	20 - 40%	No information available	No information available	25265-71-8
Sodium borate decahydrate	0 - 5%	1-(69)	No information available	1303-96-4

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

Not applicable.

Chemical name	Percent	Class	Cabinet order number	Relevant substance, conversion factor
Sodium borate decahydrate 1303-96-4	0 - 5%	Class I designated chemical substance		

**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 (%)
Sodium borate decahydrate 1303-96-4		0.1

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

#### 4. FIRST AID MEASURES

##### First aid measures

<b>Inhalation</b>	Remove to fresh air.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.
<b>Ingestion</b>	Clean mouth with water and drink afterwards plenty of water.
<b>Symptoms</b>	No information available.
<b>Self-protection of the first aider</b>	Remove all sources of ignition. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Wear personal protective clothing (see section 8).
<b>Note to physicians</b>	Treat symptomatically.

#### 5. FIRE-FIGHTING MEASURES

<b>Flammable Properties</b>	Not flammable. Combustible liquid.
<b>Suitable Extinguishing Media</b>	Dry chemical. Carbon dioxide (CO <sub>2</sub> ). Water spray. Alcohol resistant foam.
<b>Unsuitable extinguishing media</b>	No information available.
<b>Specific hazards arising from the chemical</b>	Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray.
<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>	Evacuate personnel to safe areas. Use personal protective equipment as required. See section 8 for more information. Take precautionary measures against static discharges. Do not touch or walk through spilled material. Remove all sources of ignition.
<b>For emergency responders</b>	Use personal protection recommended in Section 8.
<b>Environmental precautions</b>	Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so.
<b>Methods for containment</b>	Stop leak if you can do it without risk. Do not touch or walk through spilled material. Dike far

ahead of liquid spill for later disposal.

<b>Methods for cleaning up</b>	Take precautionary measures against static discharges. 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** Use personal protection equipment. Do not breathe vapor or mist. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharges. Use with local exhaust ventilation.

### Storage

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, flame and other sources of ignition (i.e., pilot lights, electric motors and static electricity). Keep in properly labeled containers. Store in accordance with the particular national regulations. Store in accordance with local regulations.

**General hygiene considerations** Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. 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
Sodium borate decahydrate 1303-96-4	-	-	STEL: 6 mg/m <sup>3</sup> inhalable particulate matter TWA: 2 mg/m <sup>3</sup> inhalable particulate matter

**Biological occupational exposure limits** Not applicable

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

### Personal Protective Equipment

**Eye/face protection** Tight sealing safety goggles.

**Skin and body protection** No special protective equipment required.

**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**

<b>Physical state</b>	Liquid
<b>Appearance</b>	Yellow
<b>Odor</b>	Woody
<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	
Melting / freezing point	No data available	None known
Boiling point / boiling range	100°C	
Flash Point	93°C	
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	1	
Water Solubility	Soluble in water	
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>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

<b>10. STABILITY AND REACTIVITY</b>
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<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>Conditions to avoid</b>	Heat, flames and sparks.
<b>Incompatible materials</b>	None known based on information supplied.
<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.
<b>Eye contact</b>	Specific test data for the substance or mixture is not available.
<b>Skin contact</b>	Specific test data for the substance or mixture is not available.
<b>Ingestion</b>	Specific test data for the substance or mixture is not available.
<b>Symptoms</b>	No information available.

#### Numerical measures of toxicity - Product Information

#### Unknown acute toxicity

- 0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
- 0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
- 0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)
- 0 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)
- 0 % 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
Dipropylene glycol 25265-71-8	= 14850 mg/kg (Rat)	> 20mL/kg (Rabbit)	-
Sodium borate decahydrate 1303-96-4	= 2660 mg/kg ( Rat ) = 3493mg/kg ( Rat )	> 10000 mg/kg ( Rabbit )	> 2.03 mg/L ( Rat ) 4 h

#### 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
Sodium borate decahydrate 1303-96-4		Group 2A

#### Legend:

- IARC (International Agency for Research on Cancer)
- Group 2A - Probably Carcinogenic to Humans

<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	No information available.

**Target Organ Effects** Reproductive system.  
**Aspiration hazard** No information available.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

#### Ecotoxicity

Chemical name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Dipropylene glycol	-	24h LC50: > 5000mg/L (Carassius auratus)	EC50 = 10000 mg/L16 h	-

**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

**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** 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

#### 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

Hazardous substance per Water Pollution Control Law article 2 and Enforcement Order article 2

### Sewerage Act

Sewerage Act article 12-2 and Enforcement Order article 9-4

### Waterworks (Water Supply) Act

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

### Air Pollution Control Law

Hazardous air pollutants (HAPs) per Air Pollution Control Law article 2, paragraph 1, item 3 and Enforcement Order article 1

### 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  
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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**