

This safety data sheet was created pursuant to the requirements of:
Regulation (EC) No. 1907/2006 and Regulation (EC) No. 1272/2008

Issuing Date 04-Nov-2016

Revision Date 02-Feb-2018

Revision Number 4

EGHS / English

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product Name MetaDi Fluid
Product Code(s) 40-6016, 40-6032, 40-6064-085
(M)SDS Number 1352984_E
Chemical name

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Laboratory Use Only.
Uses advised against No information available.

1.3. Details of the supplier of the safety data sheet

Manufacturer ITW Test & Measurement GmbH
Manufacturer Address Boschstraße 10
73734 Esslingen am Neckar / GERMANY
www.buehler-met.de www.buehler.fr www.buehler.co.uk
Phone number +49 (0) 711 4904690-0
E-mail Address lab.eu@buehler.com

1.4. Emergency telephone number

Global Access Code: 334545
Americas: +1 760 476 3962
Middle East/Africa: +1 760 476 3959
UK: +44 8 08 189 0979
Europe: +1 760 476 3961
Asia Pacific: +1 760 476 3960

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

| | |
|-----------------------|----------------------|
| Reproductive Toxicity | Category 1B - (H360) |
|-----------------------|----------------------|

2.2. Label elements**Signal word****Danger****Hazard Statements**

H360 - May damage fertility or the unborn child if swallowed

Precautionary Statements - EU (§28, 1272/2008)

P308 + P313 - IF exposed or concerned: Get medical advice/attention

P264 - Wash hands thoroughly after handling

2.3. Other hazards

No information available

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS**3.1 Substances**

Not applicable.

3.2 Mixtures

| Chemical name | EC No | CAS-No | Percent | Classification according to Regulation (EC) No. 1272/2008 [CLP] | REACH registration number |
|---------------------------|-------|------------|----------|---|---------------------------|
| Water | - | 7732-18-5 | 60 - 80% | No data available | |
| Dipropylene glycol | - | 25265-71-8 | 20 - 40% | No data available | |
| Sodium borate decahydrate | - | 1303-96-4 | < 0.5% | Repr. 1B (H360FD) | |

Full text of H- and EUH-phrases: see section 16

This product contains one or more candidate substance(s) of very high concern (Regulation (EC) No. 1907/2006 (REACH), Article 59)

| Chemical name | CAS-No | SVHC candidates |
|---------------------------|------------|-----------------|
| Water | 7732-18-5 | - |
| Dipropylene glycol | 25265-71-8 | - |
| Sodium borate decahydrate | 1303-96-4 | X |

Section 4: FIRST AID MEASURES**4.1. Description of first aid measures**

| | |
|---|---|
| Inhalation | Remove to fresh air. |
| Skin contact | Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. |
| Eye contact | 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. |
| Ingestion | Clean mouth with water and drink afterwards plenty of water. |
| Self-protection of the first aider | 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). |

4.2. Most important symptoms and effects, both acute and delayed

Symptoms No information available.

4.3. Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

Section 5: FIRE FIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media Dry chemical, Carbon dioxide (CO₂), Water spray, Alcohol resistant foam.

Unsuitable extinguishing media No information available.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the chemical

Keep product and empty container away from heat and sources of ignition. In the event of fire, cool tanks with water spray.

5.3. Advice for firefighters

Special protective equipment for fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions 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.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions Refer to protective measures listed in Sections 7 and 8. Prevent further leakage or spillage if safe to do so.

6.3. Methods and material for containment and cleaning up

Methods for containment 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.

Methods for cleaning up Take precautionary measures against static discharges. Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

6.4. Reference to other sections

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

Section 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Advice on safe handling Use personal protection equipment. Do not breathe vapor or mist. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Take precautionary measures against static discharges. Use with local exhaust ventilation.

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.

7.2. Conditions for safe storage, including any incompatibilities

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.

7.3. Specific end use(s)

Risk Management Methods (RMM) The information required is contained in this Material Safety Data Sheet.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure Limits

| Chemical name | EU | United Kingdom | France | Spain | Germany |
|---|-------|---|--------------------------|--|---------------------------------|
| Dipropylene glycol 25265-71-8 | - | - | - | - | TWA: 100mg/m ³ S* |
| Sodium borate decahydrate 1303-96-4 | - | STEL: 15 mg/m ³ TWA: 5 mg/m ³ | TWA: 5 mg/m ³ | STEL: 6 mg/m ³ TWA: 2 mg/m ³ | - |
| Chemical name | Italy | Portugal | Netherlands | Finland | Denmark |
| Sodium borate | - | STEL: 6 | - | - | TWA: 2 mg/m ³ H* |

| | | | | | |
|---|---------|---|--|---|---|
| decahydrate 1303-96-4 | | mg/m ³ TWA: 2 mg/m ³ | | | |
| Chemical name | Austria | Switzerland | Poland | Norway | Ireland |
| Dipropylene glycol 25265-71-8 | - | STEL: 280 mg/m ³ TWA: 140 mg/m ³ | - | - | - |
| Sodium borate decahydrate 1303-96-4 | - | STEL: 5 mg/m ³ TWA: 5 mg/m ³ | STEL: 2 mg/m ³ TWA: 0.5 mg/m ³ | TWA: 5 mg/m ³ STEL: 10 mg/m ³ | TWA: 5 mg/m ³ STEL: 15 mg/m ³ |

Derived No Effect Level (DNEL) No information available

Predicted No Effect Concentration (PNEC) No information available

8.2. Exposure controls

Personal protective equipment

Eye/face protection Tight sealing safety goggles.

Skin and body protection Wear suitable protective clothing.

Environmental exposure controls No information available.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state Liquid
Appearance Yellow
Odor Woody
Color No information available
Odor Threshold No information available

| <u>Property</u> | <u>Values</u> | <u>Remarks</u> | <u>Method</u> |
|--|-------------------|----------------|---------------|
| pH | No data available | | |
| Melting / freezing point | No data available | None known | |
| Boiling point / boiling range | 100°C °C | | |
| Flash Point | 93°C 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 | |

9.2. 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 |

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

No data available.

10.2. Chemical stability

Stable under normal conditions.

Explosion Data

| | |
|----------------------------------|-------|
| Sensitivity to Mechanical Impact | None. |
| Sensitivity to Static Discharge | None. |

10.3. Possibility of hazardous reactions

| | |
|---|-------------------------------|
| Possibility of Hazardous Reactions | None under normal processing. |
|---|-------------------------------|

10.4. Conditions to avoid

Heat, flames and sparks.

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

None under normal use conditions.

Section 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Information on likely routes of exposure

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. |

Information on toxicological effects

Symptoms No information available.

Numerical measures of toxicity

Acute Toxicity

Unknown acute toxicity

- 0 % of the mixture consists of ingredient(s) of unknown 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)

| Chemical name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|---------------------------|---|--------------------------|-------------------------|
| Water | > 90 mL/kg (Rat) | - | - |
| Dipropylene glycol | = 14850 mg/kg (Rat) | > 20mL/kg (Rabbit) | - |
| Sodium borate decahydrate | = 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

Skin corrosion/irritation No information available.

Serious eye damage/eye irritation No information available.

Respiratory or skin sensitization No information available.

Germ cell mutagenicity No information available.

Carcinogenicity No information available.

Reproductive Toxicity No information available.

The table below indicates ingredients above the cut-off threshold considered as relevant which are listed as reproductive toxins.

| Chemical name | EU - Annex VI Reproductive |
|---------------------------|----------------------------|
| Sodium borate decahydrate | Repr. 1B |

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Aspiration hazard No information available.

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

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 | - |

12.2. Persistence and degradability

Persistence and Degradability No information available.

12.3. Bioaccumulative potential

Bioaccumulation No information available.

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment No information available.

| Chemical name | PBT and vPvB assessment |
|--------------------|-------------------------|
| Dipropylene glycol | Not applicable |

12.6. Other adverse effects

Other adverse effects No information available.

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

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

Contaminated packaging No information available.

Section 14: TRANSPORT INFORMATION

IMDG/IMO

| | |
|--|--------------------------|
| 14.1 UN-No. | NOT REGULATED |
| 14.2 Proper Shipping Name | Not Regulated |
| 14.3 Hazard Class | NOT REGULATED |
| 14.4 Packing Group | NOT REGULATED |
| 14.5 Marine Pollutant | Not applicable |
| 14.6 Special Provisions | None |
| 14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code | No information available |

| | |
|----------------------------------|----------------|
| <u>RID</u> | NOT REGULATED |
| 14.1 UN-No. | NOT REGULATED |
| 14.2 Proper Shipping Name | NOT REGULATED |
| 14.3 Hazard Class | NOT REGULATED |
| 14.4 Packing Group | NOT REGULATED |
| 14.5 Environmental hazard | Not applicable |
| 14.6 Special Provisions | None |

| | |
|----------------------------------|----------------|
| <u>ADR</u> | NOT REGULATED |
| 14.1 UN-No. | NOT REGULATED |
| 14.2 Proper Shipping Name | NOT REGULATED |
| 14.3 Hazard Class | NOT REGULATED |
| 14.4 Packing Group | NOT REGULATED |
| 14.5 Environmental hazard | Not applicable |
| 14.6 Special Provisions | None |

| | |
|----------------------------------|----------------|
| <u>IATA</u> | NOT REGULATED |
| 14.1 UN-No. | NOT REGULATED |
| 14.2 Proper Shipping Name | NON REGULATED |
| 14.3 Hazard Class | NOT REGULATED |
| 14.4 Packing Group | NOT REGULATED |
| 14.5 Environmental hazard | Not applicable |
| 14.6 Special Provisions | None |

Section 14: TRANSPORT INFORMATION

| | |
|--|--------------------------|
| <u>IMDG/IMO</u> | NOT REGULATED |
| 14.1 UN-No. | Not Regulated |
| 14.2 Proper Shipping Name | NOT REGULATED |
| 14.3 Hazard Class | NOT REGULATED |
| 14.4 Packing Group | NOT REGULATED |
| 14.5 Marine Pollutant | Not applicable |
| 14.6 Special Provisions | None |
| 14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code | No information available |

| | |
|----------------------------------|----------------|
| <u>RID</u> | NOT REGULATED |
| 14.1 UN-No. | NOT REGULATED |
| 14.2 Proper Shipping Name | NOT REGULATED |
| 14.3 Hazard Class | NOT REGULATED |
| 14.4 Packing Group | NOT REGULATED |
| 14.5 Environmental hazard | Not applicable |
| 14.6 Special Provisions | None |

| | |
|----------------------------------|----------------|
| <u>ADR</u> | NOT REGULATED |
| 14.1 UN-No. | NOT REGULATED |
| 14.2 Proper Shipping Name | NOT REGULATED |
| 14.3 Hazard Class | NOT REGULATED |
| 14.4 Packing Group | NOT REGULATED |
| 14.5 Environmental hazard | Not applicable |
| 14.6 Special Provisions | None |

| | |
|----------------------------------|----------------|
| IATA | NOT REGULATED |
| 14.1 UN-No. | NOT REGULATED |
| 14.2 Proper Shipping Name | NON REGULATED |
| 14.3 Hazard Class | NOT REGULATED |
| 14.4 Packing Group | NOT REGULATED |
| 14.5 Environmental hazard | Not applicable |
| 14.6 Special Provisions | None |

Section 15: REGULATORY INFORMATION

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

National regulations

France

Occupational Illnesses (R-463-3, France)

| Chemical name | French RG number | Title |
|--|---|-------|
| Dipropylene glycol 25265-71-8 | RG 84 | - |
| Sodium borate decahydrate 1303-96-4 | RG 5, RG 14, RG 15, RG 15bis, RG 20bis RG 14, RG 20bis, RG 65 RG20, RG 20bis, RG 26, RG 34, RG 65 | - |

Water hazard class (WGK) slightly hazardous to water (WGK 1)

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work .

Authorizations and/or restrictions on use:

This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII).

| Chemical name | Restricted substance per REACH Annex XVII | Substance subject to authorization per REACH Annex XIV |
|--|---|--|
| Sodium borate decahydrate - 1303-96-4 | Use restricted. See item 30. | |

Persistent Organic Pollutants

Not applicable.

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable.

International Inventories

| | |
|----------------------|---|
| TSCA | Contact supplier for inventory compliance status. |
| DSL/NDSL | Contact supplier for inventory compliance status. |
| EINECS/ELINCS | Contact supplier for inventory compliance status. |
| ENCS | Contact supplier for inventory compliance status. |
| IECSC | Contact supplier for inventory compliance status. |

KECL Contact supplier for inventory compliance status.
PICCS Contact supplier for inventory compliance status.
AICS 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
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

15.2. Chemical safety assessment

No information available.

Section 16: OTHER INFORMATION**Key or legend to abbreviations and acronyms used in the safety data sheet****Full text of H-Statements referred to under sections 2 and 3**

H360FD - May damage fertility. May damage the unborn child

Legend

SVHC: Substances of Very High Concern for Authorization:

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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

Key literature references and sources for data

www.ChemADVISOR.com/

Issuing Date 01-Mar-2017

Revision Date 02-Feb-2018

This safety data sheet complies with the requirements of: Regulation (EC) No. 1907/2006.

Disclaimer

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End of Safety Data Sheet