

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

Issuing Date 09-Aug-2016

Revision Date 13-Apr-2017

Revision Number 2

EGHS / English

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

1.1. Product identifier

Product Name MasterMet 2
Product Code(s) 40-6380-006, 40-6380-064
(M)SDS Number 1341314_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 Europe: +1 760 476 3961
Middle East/Africa: +1 760 476 3959 Asia Pacific: +1 760 476 3960
UK: +44 8 08 189 0979

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

2.2. Label elements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

EUH210 - Safety data sheet available on request

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	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH registration number
Polyethylene glycol	-	25322-68-3	10 - 30%	No data available	
Silica	Present	7631-86-9	10 - 30%	No data available	
Diethylene glycol	203-872-2	111-46-6	1 - 5%	Acute Tox. 4 (H302)	

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

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (Regulation (EC) No. 1907/2006 (REACH), Article 59)

Chemical name	CAS No	SVHC candidates
Water	7732-18-5	-
Polyethylene glycol	25322-68-3	-
Silica	7631-86-9	-
Diethylene glycol	111-46-6	-

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures

Inhalation	Remove to fresh air.
Skin contact	Wash skin with soap and water. In the case of skin irritation or allergic reactions see a physician.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
Ingestion	Clean mouth with water and drink afterwards plenty of water.

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

Unsuitable extinguishing media No information available.

5.2. Special hazards arising from the substance or mixture**Specific hazards arising from the chemical**

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

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 Ensure adequate ventilation.

For emergency responders Use personal protection recommended in Section 8.

6.2. Environmental precautions

Environmental precautions Should not be released into the environment. See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up

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

Methods for cleaning up Take up mechanically, placing in appropriate containers for disposal.

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 Ensure adequate ventilation.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place.

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
Polyethylene glycol 25322-68-3	-	-	-	-	TWA: 1000 mg/m ³
Silica 7631-86-9	-	STEL: 18 mg/m ³ STEL: 7.2 mg/m ³ TWA: 2.4 mg/m ³ TWA: 6 mg/m ³	-	-	TWA: 4 mg/m ³
Diethylene glycol 111-46-6	-	STEL: 69 ppm STEL: 303 mg/m ³ TWA: 23 ppm TWA: 101 mg/m ³	-	-	TWA: 10 ppm TWA: 44 mg/m ³
Chemical name	Italy	Portugal	Netherlands	Finland	Denmark
Silica 7631-86-9	-	-	-	TWA: 5 mg/m ³	-
Diethylene glycol 111-46-6	-	-	-	-	TWA: 2.5 ppm TWA: 11 mg/m ³
Chemical name	Austria	Switzerland	Poland	Norway	Ireland
Polyethylene glycol 25322-68-3	STEL 4000 mg/m ³ TWA: 1000 mg/m ³	TWA: 1000 mg/m ³	-	-	-
Silica 7631-86-9	TWA: 4 mg/m ³	TWA: 4 mg/m ³	-	TWA: 1.5 mg/m ³ STEL: 1.5 mg/m ³	TWA: 6 mg/m ³ TWA: 2.4 mg/m ³ STEL: 18 mg/m ³ STEL: 7.2 mg/m ³
Diethylene glycol 111-46-6	STEL 40 ppm STEL 176 mg/m ³ TWA: 10 ppm TWA: 44 mg/m ³	STEL: 40 ppm STEL: 176 mg/m ³ TWA: 10 ppm TWA: 44 mg/m ³	TWA: 10 mg/m ³	-	TWA: 23 ppm TWA: 100 mg/m ³ STEL: 69 ppm STEL: 300 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	Slurry
Appearance	White
Odor	Odorless
Color	No information available
Odor Threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks</u>	<u>Method</u>
pH	UNKNOWN		
Melting / freezing point	No data available	None known	
Boiling point / boiling range	100 °C		
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	1.2		
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 (%)	0%
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.

Polyethylene glycol	= 28 g/kg (Rat) = 22 g/kg (Rat)	> 20 g/kg (Rabbit) > 20 mL/kg (Rabbit)	-
Silica	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 2.2 mg/L (Rat) 1 h
Diethylene glycol	= 12565 mg/kg (Rat)	= 11890 mg/kg (Rabbit)	-

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.

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)
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

12.2. Persistence and degradability

Persistence and Degradability No information available.

12.3. Bioaccumulative potential

Bioaccumulation

Chemical name	Log Pow
Diethylene glycol	-1.98

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
Polyethylene glycol	Not applicable
Silica	
Diethylene 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	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

RID	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

<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 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
Silica 7631-86-9	RG 25	-
Diethylene glycol 111-46-6	RG 84	-

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 does not contain substances subject to authorization (Regulation (EC) No. 1907/2006 (REACH), Annex XIV). This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII).

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

H302 - Harmful if swallowed

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 13-Apr-2017

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

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.



The supplier identified below generated this SDS using the UL SDS template. UL did not test, certify, or approve the substance described in this SDS, and all information in this SDS was provided by the supplier or was reproduced from publically available regulatory data sources. UL makes no representations or warranties regarding the completeness or accuracy of the information in this SDS and disclaims all liability in connection with the use of this information or the substance described in this SDS. The layout, appearance and format of this SDS is © 2014 UL LLC. All rights reserved.

End of Safety Data Sheet