

SAFETY DATA SHEET

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

Revision Number 3 Issuing Date 05-Aug-2016 Revision Date 13-Apr-2017

EGHS / English

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

1.1. Product identifier

Product Name ProbeMet

Product Code(s) 20-3385-064

(M)SDS Number 1340874_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

UK: +44 8 08 189 0979

Asia Pacific: +1 760 476 3960

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture



Regulation (EC) No 1272/2008

Acute toxicity - Oral	Category 4 - (H302)
Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 2 - (H319)
Specific target organ toxicity (single exposure)	Category 3 - (H335)
Acute aquatic toxicity	Category 1 - (H400)
Chronic aquatic toxicity	Category 1 - (H410)

2.2. Label elements



Signal word

Warning

Hazard Statements

H302 - Harmful if swallowed

H315 - Causes skin irritation

H319 - Causes serious eye irritation

H335 - May cause respiratory irritation

H410 - Very toxic to aquatic life with long lasting effects

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

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray

P280 - Wear protective gloves/protective clothing/eye protection/face protection

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P310 - Immediately call a POISON CENTER or doctor/physician

P301 + P330 + P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

P321 - Specific treatment (see supplemental instructions on the administration of antidotes on this label)

P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable

2.3. Other hazards

No information available

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Chemical name	EC No	CAS No	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH registration number
Copper	231-159-6	7440-50-8	40 - 60%	STOT SE 3 (H335) Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Aquatic Acute 1 (H400) Aquatic Chronic 1	



				(H410)	
Silica, fused	262-373-8 424-440-1	60676-86-0	30 - 40%	No data available	
Dhanal	424-440-1	00005 00 7	40 450/	No dete essellable	
Phenol,	-	26265-08-7	10 - 15%	No data available	
4,4`-(1-methylethylidene)					
bis[2,6-dibromo-, polymer					
with					
(chloromethyl)oxirane					
and					
4,4`-(1-methylethylidene)					
bis[phenol]					
	202-013-9	90-72-2	0 - 1%	A quita Tay 4 (U202)	
2,4,6-Tri(dimethylaminom	202-013-9	90-72-2	0 - 1%	Acute Tox. 4 (H302)	
ethyl)phenol				Skin Irrit. 2 (H315)	
				Eye Irrit. 2 (H319)	
Titanium dioxide	236-675-5	13463-67-7	0 - 0.5%	No data available	
Carbon black	Present	1333-86-4	0 - 0.5%	No data available	

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

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC)

No. 1907/2006 (REACH), Article 59)

1101 1001/2000 (112/1011); / 1111010 00	1	
Chemical name	CAS No	SVHC candidates
Copper	7440-50-8	-
Silica, fused	60676-86-0	-
Phenol,	26265-08-7	-
4,4`-(1-methylethylidene)bis[2,6-di		
bromo-, polymer with		
(chloromethyl)oxirane and		
4,4`-(1-methylethylidene)bis[pheno		
l]		
2,4,6-Tri(dimethylaminomethyl)phe	90-72-2	-
nol		
Titanium dioxide	13463-67-7	-
Carbon black	1333-86-4	-

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures

General advice Show this safety data sheet to the doctor in attendance.

Inhalation Remove to fresh air. Get medical attention immediately if symptoms occur.

Skin contact Wash off immediately with soap and plenty of water for at least 15 minutes. If

symptoms persist, call a physician.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15

minutes. Keep eye wide open while rinsing. Remove contact lenses, if present and

easy to do. Continue rinsing. Get medical attention if irritation develops and

persists. Do not rub affected area.

Ingestion Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of

water. Never give anything by mouth to an unconscious person. Call a physician.

Self-protection of the first aider 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). Avoid contact with skin, eyes or

clothing.

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

Symptoms Burning sensation.

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

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 Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use

personal protective equipment as required. 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.

6.2. Environmental precautions

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

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 upTake 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 Handle in accordance with good industrial hygiene and safety practice. Avoid

contact with skin, eyes or clothing. Ensure adequate ventilation. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash

before reuse.

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.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of

the reach of children. Store locked up.

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
Copper	-	STEL: 0.6 mg/m ³	TWA: 0.2 mg/m ³	TWA: 0.2 mg/m ³	-
7440-50-8		STEL: 2 mg/m ³	TWA: 1 mg/m ³	TWA: 1 mg/m ³	
		TWA: 1 mg/m ³	STEL: 2 mg/m ³		
		TWA: 0.2 mg/m ³			
Silica, fused	-	STEL: 0.24 mg/m ³	-	-	TWA: 0.3 mg/m ³
60676-86-0		TWA: 0.08 mg/m ³			
Titanium dioxide	-	STEL: 30 mg/m ³	TWA: 10 mg/m ³	TWA: 10 mg/m ³	-
13463-67-7		STEL: 12 mg/m ³			
		TWA: 10 mg/m ³			
		TWA: 4 mg/m ³			
Carbon black	-	STEL: 7 mg/m ³	TWA: 3.5 mg/m ³	TWA: 3.5 mg/m ³	-
1333-86-4		TWA: 3.5 mg/m ³			
Chemical name	Italy	Portugal	Netherlands	Finland	Denmark
Copper	-	TWA: 0.2 mg/m ³	TWA: 0.1 mg/m ³	TWA: 1 mg/m ³	TWA: 1.0 mg/m ³
7440-50-8		TWA: 1 mg/m ³		TWA: 0.1 mg/m ³	TWA: 0.1 mg/m ³
Silica, fused	-	-	-	-	TWA: 0.1 mg/m ³
60676-86-0					
Titanium dioxide	_	TWA: 10 mg/m ³			TWA: 6 mg/m ³
		TVVA. TO HIG/III°	-	-	I VVA. O IIIg/III
13463-67-7		TVVA. 10 mg/m²	•	•	T VVA. O mg/m²
13463-67-7 Carbon black	-	TWA: 10 mg/m ³	-	TWA: 3.5 mg/m ³	TWA: 3.5 mg/m ³
	-		-	TWA: 3.5 mg/m ³ STEL: 7 mg/m ³	
Carbon black	- Austria		- Poland		
Carbon black 1333-86-4	- Austria STEL 4 mg/m³	TWA: 3.5 mg/m ³	- Poland TWA: 0.2 mg/m³	STEL: 7 mg/m ³	TWA: 3.5 mg/m ³
Carbon black 1333-86-4 Chemical name		TWA: 3.5 mg/m³ Switzerland		STEL: 7 mg/m³ Norway	TWA: 3.5 mg/m³



	TWA: 0.1 mg/m ³			STEL: 3 mg/m ³	STEL: 2 mg/m ³
Silica, fused	TWA: 0.3 mg/m ³	TWA: 0.3 mg/m ³	TWA: 2.0 mg/m ³	=	TWA: 0.08 mg/m ³
60676-86-0	_	_	TWA: 1.0 mg/m ³		STEL: 0.24 mg/m ³
Titanium dioxide	STEL 10 mg/m ³	TWA: 3 mg/m ³	STEL: 30 mg/m ³	TWA: 5 mg/m ³	TWA: 10 mg/m ³
13463-67-7	TWA: 5 mg/m ³	_	TWA: 10.0 mg/m ³	STEL: 10 mg/m ³	TWA: 4 mg/m ³
			TWA: 10 mg/m ³		STEL: 30 mg/m ³
					STEL: 12 mg/m ³
Carbon black	-	-	TWA: 4.0 mg/m ³	TWA: 3.5 mg/m ³	TWA: 3 mg/m ³
1333-86-4				STEL: 7 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

Wear safety glasses with side shields (or goggles). If splashes are likely to occur, Eye/face protection

wear safety glasses with side-shields. None required for consumer use.

Wear suitable gloves. Impervious gloves. **Hand Protection**

Skin and body protection Wear suitable protective clothing. Long sleeved clothing.

Environmental exposure

controls

No information available.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Granular Physical state **Appearance** Copper Odor Mild

Color No information available **Odor Threshold** No information available

Values Remarks Method **Property** Hq 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 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 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 temperatureNo data availableNone knownKinematic viscosityNo data availableNone knownViscosityNo data availableNone known

9.2. Other information

Softening Point
Molecular Weight
VOC Content (%)
Liquid Density
Bulk Density
Particle Size
Particle Size
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

None known.

10.5. Incompatible materials

Strong acids, Strong bases, Strong oxidizing agents.

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. May cause irritation

of respiratory tract.

Eye contact Specific test data for the substance or mixture is not available. Irritating to eyes.



(based on components). May cause redness, itching, and pain. Causes serious

eye irritation.

Skin contact Specific test data for the substance or mixture is not available. Causes skin

irritation. (based on components). May cause irritation. Prolonged contact may cause redness and irritation. May be absorbed through the skin in harmful

amounts. Harmful in contact with skin.

Ingestion Specific test data for the substance or mixture is not available. Ingestion may

cause gastrointestinal irritation, nausea, vomiting and diarrhea. Harmful if

swallowed. (based on components).

Information on toxicological effects

Symptoms Redness. May cause redness and tearing of the eyes.

Numerical measures of toxicity

Acute Toxicity

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 1,800.00 mg/kg **ATEmix (dermal)** 1,920.00 mg/kg

Unknown acute toxicity

99.5 % of the mixture consists of ingredient(s) of unknown toxicity

98.5 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

98.5 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity

99.5 % 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)

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
2,4,6-Tri(dimethylaminomethyl)phenol	= 1200 mg/kg (Rat)	= 1280 mg/kg (Rat)	-
Titanium dioxide	> 10000 mg/kg (Rat)	-	-
Carbon black	> 15400 mg/kg (Rat)	> 3 g/kg (Rabbit)	-

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

Skin corrosion/irritation Classification based on data available for ingredients. Irritating to skin.

Serious eye damage/eye

irritation

Classification based on data available for ingredients. Irritating to eyes.

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 May cause respiratory irritation.

STOT - repeated exposure No information available.

Aspiration hazard No information available.

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecotoxicity Very toxic to aquatic life with long lasting effects.

Chemical name	Toxicity to Algae	Toxicity to Fish	Toxicity to	Daphnia Magna
			Microorganisms	(Water Flea)
Copper	96h EC50: 0.031 - 0.054 mg/L (Pseudokirchneriella subcapitata) 72h EC50: 0.0426 - 0.0535 mg/L (Pseudokirchneriella subcapitata)	96h LC50: 0.0068 - 0.0156 mg/L (Pimephales promelas) 96h LC50: = 1.25 mg/L (Lepomis macrochirus) 96h LC50: = 0.052 mg/L (Oncorhynchus mykiss) 96h LC50: = 0.2 mg/L (Pimephales promelas) 96h LC50: < 0.3 mg/L (Pimephales promelas) 96h LC50: = 0.112 mg/L (Poecilia reticulata) 96h LC50: = 0.3 mg/L (Cyprinus carpio) 96h LC50: = 0.8 mg/L (Cyprinus	-	48h EC50: = 0.03 mg/L
		carpio)		
Carbon black	-	-	-	24h EC50: > 5600 mg/L

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



Copper	
2,4,6-Tri(dimethylaminomethyl)phenol	Not applicable
Titanium dioxide	
Carbon black	

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/IMONOT REGULATED14.1 UN-No.Not Regulated14.2 Proper Shipping NameNOT REGULATED14.3 Hazard ClassNOT REGULATED14.4 Packing GroupNOT REGULATED

14.5 Marine Pollutant

This product contains a chemical which is listed as a marine pollutant according to

IMDG/IMO Product is a marine pollutant according to the criteria set by IMDG/IMO

Environmental hazard Yes **14.6 Special Provisions** None

14.7 Transport in bulk No information available

according to Annex II of MARPOL and the IBC Code

RID
14.1 UN-No.
NOT REGULATED

14.5 Environmental hazard Yes14.6 Special Provisions None

ADR
14.1 UN-No.
14.2 Proper Shipping Name
14.3 Hazard Class
14.4 Packing Group

NOT REGULATED
NOT REGULATED
NOT REGULATED
NOT REGULATED
NOT REGULATED

14.5 Environmental hazard Yes14.6 Special Provisions None

IATA NOT REGULATED NOT REGULATED NOT REGULATED



14.2 Proper Shipping NameNON REGULATED14.3 Hazard ClassNOT REGULATED14.4 Packing GroupNOT REGULATED

14.5 Environmental hazard Yes14.6 Special Provisions None

Section 14: TRANSPORT INFORMATION

IMDG/IMONOT REGULATED14.1 UN-No.Not Regulated14.2 Proper Shipping NameNOT REGULATED14.3 Hazard ClassNOT REGULATED14.4 Packing GroupNOT REGULATED

14.5 Marine PollutantThis product contains a chemical which is listed as a marine pollutant according to IMDG/IMO Product is a marine pollutant according to the criteria set by IMDG/IMO

Environmental hazard Yes **14.6 Special Provisions** None

14.7 Transport in bulk No information available

according to Annex II of MARPOL and the IBC Code

RIDNOT REGULATED14.1 UN-No.NOT REGULATED14.2 Proper Shipping NameNOT REGULATED14.3 Hazard ClassNOT REGULATED14.4 Packing GroupNOT REGULATED14.5 Environmental hazardYes

14.5 Environmental hazard Yes14.6 Special Provisions None

ADR
14.1 UN-No.
14.2 Proper Shipping Name
14.3 Hazard Class
14.4 Packing Group

NOT REGULATED
NOT REGULATED
NOT REGULATED
NOT REGULATED
NOT REGULATED

14.5 Environmental hazard Yes14.6 Special Provisions None

IATANOT REGULATED14.1 UN-No.NOT REGULATED14.2 Proper Shipping NameNON REGULATED14.3 Hazard ClassNOT REGULATED14.4 Packing GroupNOT REGULATED

14.5 Environmental hazard Yes14.6 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
Copper	RG 5,RG 14,RG 15,RG 15bis,RG	-
7440-50-8	20bis	
Carbon black	RG 16,RG 16bis	-
1333-86-4		

Water hazard class (WGK) hazardous to water (WGK 2)

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.

Dangerous substance category per Seveso Directive (2012/18/EU)

E1 - Hazardous to the Aquatic Environment in Category Acute 1 or Chronic

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

Not applicable.

International Inventories

Contact supplier for inventory compliance status. **TSCA DSL/NDSL** Contact supplier for inventory compliance status. 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 **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

H335 - May cause respiratory irritation

H315 - Causes skin irritation

H319 - Causes serious eye irritation

H400 - Very toxic to aquatic life

H410 - Very toxic to aquatic life with long lasting effects

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

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End of Safety Data Sheet

