

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

Issuing Date 10-Aug-2016

Revision Date 06-Jul-2018

Revision Number 3

EGHS / English

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

### 1.1. Product identifier

**Product Name** MicroPolish II Alumina Suspension  
**Product Code(s)** 406361006; 406362006; 406363006; 406363128  
**(M)SDS Number** 1342327\_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**

Skin corrosion/irritation	Category 2 - (H315)
Serious eye damage/eye irritation	Category 2 - (H319)

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

H315 - Causes skin irritation

H319 - Causes serious eye irritation

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

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water

P332 + P313 - If skin irritation occurs: Get medical advice/attention

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

P337 + P313 - If eye irritation persists: Get medical advice/attention

P321 - Specific treatment (see supplemental first aid instructions on this label)

**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
Water	-	7732-18-5	20 - 50%	No data available	
Propane-1,2-diol	200-338-0	57-55-6	5 - 30%	No data available	
Aluminum oxide	215-691-6	1344-28-1	5 - 30%	No data available	
Hydroxyethyl cellulose	-	9004-62-0	0 - 10%	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) STOT SE 3 (H335)	

**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	-
Propane-1,2-diol	57-55-6	-
Aluminum oxide	1344-28-1	-
Hydroxyethyl cellulose	9004-62-0	-

## Section 4: FIRST AID MEASURES

### 4.1. Description of first aid measures

<b>General advice</b>	Show this safety data sheet to the doctor in attendance.
<b>Inhalation</b>	Remove to fresh air. Get medical attention immediately if symptoms occur.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.
<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. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists. Do not rub affected area.
<b>Ingestion</b>	Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician.
<b>Self-protection of the first aider</b>	Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

### 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

**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.

#### Hazardous Combustion Products

Carbon monoxide, Carbon dioxide (CO<sub>2</sub>).

### 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

<b>Personal precautions</b>	Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required.
<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.

### 6.2. Environmental precautions

<b>Environmental precautions</b>	Prevent further leakage or spillage if safe to do so.
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### 6.3. Methods and material for containment and cleaning up

<b>Methods for containment</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for cleaning up</b>	Take up mechanically, placing in appropriate containers for disposal.

### 6.4. Reference to other sections

<b>Reference to other sections</b>	See section 8 for more information. See section 13 for more information.
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## Section 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

<b>Advice on safe handling</b>	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. Take off contaminated clothing and wash before reuse.
<b>General Hygiene Considerations</b>	Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Avoid contact with skin, eyes or clothing.

### 7.2. Conditions for safe storage, including any incompatibilities

<b>Storage Conditions</b>	Keep containers tightly closed in a dry, cool and well-ventilated place.
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### 7.3. Specific end use(s)

<b>Risk Management Methods (RMM)</b>	The information required is contained in this Material Safety Data Sheet.
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## Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

#### Exposure Limits

Chemical name	EU	United Kingdom	France	Spain	Germany
Propane-1,2-diol	-	STEL: 450 ppm	-	-	-

57-55-6		STEL: 1422 mg/m <sup>3</sup> STEL: 30 mg/m <sup>3</sup> TWA: 150 ppm TWA: 474 mg/m <sup>3</sup> TWA: 10 mg/m <sup>3</sup>			
Aluminum oxide 1344-28-1	-	STEL: 30 mg/m <sup>3</sup> STEL: 12 mg/m <sup>3</sup> TWA: 10 mg/m <sup>3</sup> TWA: 4 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup>	-
Chemical name	Italy	Portugal	Netherlands	Finland	Denmark
Aluminum oxide 1344-28-1	-	TWA: 10 mg/m <sup>3</sup>	TWA: 0.05 mg/m <sup>3</sup>	-	TWA: 5 mg/m <sup>3</sup> TWA: 2 mg/m <sup>3</sup>
Chemical name	Austria	Switzerland	Poland	Norway	Ireland
Propane-1,2-diol 57-55-6	-	-	-	TWA: 25 ppm TWA: 79 mg/m <sup>3</sup> STEL: 37.5 ppm STEL: 118.5 mg/m <sup>3</sup>	TWA: 150 ppm TWA: 470 mg/m <sup>3</sup> TWA: 10 mg/m <sup>3</sup> STEL: 450 ppm STEL: 1410 mg/m <sup>3</sup> STEL: 30 mg/m <sup>3</sup>
Aluminum oxide 1344-28-1	STEL 10 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup>	STEL: 24 mg/m <sup>3</sup> TWA: 3 mg/m <sup>3</sup>	TWA: 2.5 mg/m <sup>3</sup> TWA: 1.2 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup> STEL: 20 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup> TWA: 4 mg/m <sup>3</sup> STEL: 30 mg/m <sup>3</sup> STEL: 12 mg/m <sup>3</sup>

**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** If splashes are likely to occur, wear safety glasses with side-shields. None required for consumer use.

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

**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

**Physical state** Liquid  
**Appearance** White  
**Odor** Odorless  
**Color** No information available  
**Odor Threshold** 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	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	1	
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

## 9.2. Other information

Softening Point	No information available
Molecular Weight	No information available
VOC Content (%)	175 g/L
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

<b>Possibility of Hazardous Reactions</b>	None under normal processing.
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### 10.4. Conditions to avoid

None known.

### 10.5. Incompatible materials

Strong acids, Strong bases, Strong oxidizing agents.

**10.6. Hazardous decomposition products**Carbon monoxide, Carbon dioxide (CO<sub>2</sub>).**Section 11: TOXICOLOGICAL INFORMATION****11.1. Information on toxicological effects****Information on likely routes of exposure****Product Information**

<b>Inhalation</b>	Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.
<b>Eye contact</b>	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.
<b>Skin contact</b>	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.
<b>Ingestion</b>	Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

**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

<b>ATEmix (oral)</b>	56,000.00 mg/kg
<b>ATEmix (dermal)</b>	58,240.00 mg/kg

**Unknown acute toxicity**

- 55 % of the mixture consists of ingredient(s) of unknown 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
- 55 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)
- 55 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)
- 55 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Chemical name	LD50 Oral	LD50 Dermal	Inhalation LC50
Water	> 90 mL/kg ( Rat )		
Propane-1,2-diol	= 20 g/kg ( Rat )	= 20800 mg/kg ( Rabbit )	
Aluminum oxide	> 5000 mg/kg ( Rat )		

**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.

<b>Serious eye damage/eye irritation</b>	Classification based on data available for ingredients. Irritating to eyes.
<b>Respiratory or skin sensitization</b>	No information available.
<b>Germ cell mutagenicity</b>	No information available.
<b>Carcinogenicity</b>	No information available.
<b>Reproductive Toxicity</b>	No information available.
<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	No information available.
<b>Aspiration hazard</b>	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)
Propane-1,2-diol	96h EC50: = 19000 mg/L (Pseudokirchneriella subcapitata)	96h LC50: = 51600 mg/L (Oncorhynchus mykiss) 96h LC50: 41 - 47 mL/L (Oncorhynchus mykiss) 96h LC50: = 51400 mg/L (Pimephales promelas) 96h LC50: = 710 mg/L (Pimephales promelas)	EC50 = 710 mg/L 30 min	24h EC50: > 10000 mg/L 48h EC50: > 1000 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
Propane-1,2-diol	Not applicable
Aluminum oxide	

## 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

	NOT REGULATED
14.1 UN Number	Not Regulated
14.2 Proper Shipping Name	NOT REGULATED
14.3 Hazard Class (select)	NOT REGULATED
14.4 Packing Group (select)	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

### ADR

	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 Number	NOT REGULATED
14.2 Proper Shipping Name	NON REGULATED

14.3 Hazard Class (select)	NOT REGULATED
14.4 Packing Group (select)	NOT REGULATED
14.5 Environmental hazard	Not applicable
14.6 Special Provisions	None

### Section 14: TRANSPORT INFORMATION

<b>IMDG</b>	NOT REGULATED
14.1 UN Number	Not Regulated
14.2 Proper Shipping Name	NOT REGULATED
14.3 Hazard Class (select)	NOT REGULATED
14.4 Packing Group (select)	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

<b>RID</b>	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

<b>ADR</b>	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

<b>IATA</b>	NOT REGULATED
14.1 UN Number	NOT REGULATED
14.2 Proper Shipping Name	NON REGULATED
14.3 Hazard Class (select)	NOT REGULATED
14.4 Packing Group (select)	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

Propane-1,2-diol 57-55-6	RG 84	-
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**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

<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>IECSC</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  
**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

H315 - Causes skin irritation

H319 - Causes serious eye irritation

H335 - May cause respiratory irritation

#### 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/](http://www.ChemADVISOR.com/)

Issuing Date 01-Mar-2017

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

#### Disclaimer

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**End of Safety Data Sheet**