

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

**Issuing Date** 02-Sep-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** UltraMet 2 Cleaning Solution

**Product Code(s)** 75-6000-032

**(M)SDS Number** 1347102\_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**

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**

Chemical name	EC No	CAS No	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH registration number
Water	-	7732-18-5	70 - 80%	No data available	
Sulfuric acid, mono-C10-16-alkyl esters, sodium salts	-	68585-47-7	10 - 20%	No data available	
Alkyl (C10-16) dimethylamine oxide	-	70592-80-2	5 - 10%	No data available	
.alpha.-Alkyl (C10-16) .omega.-hydroxypoly (oxyethylene) sulfate, sodium salt	-	68585-34-2	5 - 10%	Skin Irrit. 2 (H315) Eyelrrit. 2 (H319)	
Ethanol	Present	64-17-5	1 - 5%	Flam. Liq. 2 (H225)	

**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	-
Sulfuric acid, mono-C10-16-alkyl esters, sodium salts	68585-47-7	-
Alkyl (C10-16) dimethylamine oxide	70592-80-2	-
.alpha.-Alkyl (C10-16) .omega.-hydroxypoly (oxyethylene) sulfate, sodium salt	68585-34-2	-
Ethanol	64-17-5	-

### Section 4: FIRST AID MEASURES

**4.1. Description of first aid measures**

**Inhalation**

Remove to fresh air.

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<b>Skin contact</b>	Wash skin with soap and water. In the case of skin irritation or allergic reactions see a physician.
<b>Eye contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.
<b>Ingestion</b>	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.

##### **Hazardous Combustion Products**

Carbon oxides.

#### **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
Ethanol 64-17-5	-	STEL: 3000 ppm STEL: 5760 mg/m <sup>3</sup> TWA: 1000 ppm TWA: 1920 mg/m <sup>3</sup>	TWA: 1000 ppm TWA: 1900 mg/m <sup>3</sup> STEL: 5000 ppm STEL: 9500 mg/m <sup>3</sup>	STEL: 1000 ppm STEL: 1910 mg/m <sup>3</sup>	TWA: 500 ppm TWA: 960 mg/m <sup>3</sup>
Chemical name	Italy	Portugal	Netherlands	Finland	Denmark
Ethanol 64-17-5	-	TWA: 1000 ppm	H* STEL: 1900 mg/m <sup>3</sup> TWA: 260 mg/m <sup>3</sup>	TWA: 1000 ppm TWA: 1900 mg/m <sup>3</sup> STEL: 1300 ppm STEL: 2500 mg/m <sup>3</sup>	TWA: 1000 ppm TWA: 1900 mg/m <sup>3</sup>
Chemical name	Austria	Switzerland	Poland	Norway	Ireland
Ethanol 64-17-5	STEL 2000 ppm STEL 3800 mg/m <sup>3</sup> TWA: 1000 ppm TWA: 1900 mg/m <sup>3</sup>	STEL: 1000 ppm STEL: 1920 mg/m <sup>3</sup> TWA: 500 ppm TWA: 960 mg/m <sup>3</sup>	TWA: 1900 mg/m <sup>3</sup>	TWA: 500 ppm TWA: 950 mg/m <sup>3</sup> STEL: 500 ppm STEL: 950 mg/m <sup>3</sup>	STEL: 1000 ppm

**Derived No Effect Level (DNEL)** No information available

**Predicted No Effect Concentration (PNEC)** No information available

#### **8.2. Exposure controls**

**Personal protective equipment**

<b>Eye/face protection</b>	Tight sealing safety goggles.
<b>Skin and body protection</b>	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**

<b>Physical state</b>	Liquid
<b>Appearance</b>	Clear
<b>Odor</b>	Mild
<b>Color</b>	No information available
<b>Odor Threshold</b>	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks</u>	<u>Method</u>
pH	9.0		
<b>Melting / freezing point</b>	No data available	None known	
<b>Boiling point / boiling range</b>	100°C °C		
<b>Flash Point</b>	No data available	None known	
<b>Evaporation Rate</b>	No data available	None known	
<b>Flammability (solid, gas)</b>	No data available	None known	
<b>Flammability Limit in Air</b>		None known	
<b>Upper flammability limit</b>	No data available		
<b>Lower flammability limit</b>	No data available		
<b>Vapor pressure</b>	No data available	None known	
<b>Vapor density</b>	No data available	None known	
<b>Relative density</b>	1.04		
<b>Water Solubility</b>	Soluble in water		
<b>Solubility(ies)</b>	No data available	None known	
<b>Partition coefficient: n-octanol/water</b>	No data available	None known	
<b>Autoignition temperature</b>	No data available	None known	
<b>Decomposition temperature</b>	No data available	None known	
<b>Kinematic viscosity</b>	No data available	None known	
<b>Viscosity</b>	No data available	None known	

**9.2. Other information**

<b>Softening Point</b>	No information available
<b>Molecular Weight</b>	No information available
<b>VOC Content (%)</b>	Not applicable
<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

**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.

**Hazardous Polymerization**      Hazardous polymerization does not occur.

**10.4. Conditions to avoid**

None known.

**10.5. Incompatible materials**

No information available.

**10.6. Hazardous decomposition products**

Carbon oxides.

**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.
<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.

**Information on toxicological effects**

**Symptoms**      No information available.

**Numerical measures of toxicity**

**Acute Toxicity**

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

<b>ATEmix</b>	9,352.50 mg/L
<b>(inhalation-dust/mist)</b>	

**Unknown acute toxicity**

- 26 % of the mixture consists of ingredient(s) of unknown toxicity
- 25 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
- 26 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity

26 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)  
 26 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)  
 25 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

**Component Information**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Water	> 90 mL/kg ( Rat )	-	-
Sulfuric acid, mono-C10-16-alkyl esters, sodium salts	> 2000 mg/kg ( Rat )	-	-
Alkyl (C10-16) dimethylamine oxide	> 2000 mg/kg ( Rat )	-	-
Ethanol	= 7060 mg/kg ( Rat )	-	= 124.7 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.

**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)
Alkyl (C10-16) dimethylamine oxide	-	-	-	96h LC50: = 1.01 mg/L
Ethanol	-	96h LC50: 12.0 - 16.0 mL/L (Oncorhynchus mykiss) 96h LC50: > 100 mg/L (Pimephales	EC50 = 34634 mg/L 30 min EC50 = 35470 mg/L 5 min	48h LC50: 9268 - 14221 mg/L 48h EC50: = 2 mg/L 24h EC50: = 10800 mg/L

		promelas) 96h LC50: 13400 - 15100 mg/L (Pimephales promelas)		
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**12.2. Persistence and degradability**

**Persistence and Degradability** No information available.

**12.3. Bioaccumulative potential**

**Bioaccumulation**

Chemical name	Log Pow
Ethanol	-0.32

**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
Ethanol	

**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**

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



<b><u>RID</u></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><u>ADR</u></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><u>IATA</u></b>	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

<b><u>IMDG/IMO</u></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 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><u>RID</u></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><u>ADR</u></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
<b>14.1 UN-No.</b>	NOT REGULATED
<b>14.2 Proper Shipping Name</b>	NON REGULATED
<b>14.3 Hazard Class</b>	NOT REGULATED
<b>14.4 Packing Group</b>	NOT REGULATED
<b>14.5 Environmental hazard</b>	Not applicable
<b>14.6 Special Provisions</b>	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
Ethanol 64-17-5	RG 84	-

**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.

#### **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

#### 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

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