

## SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Version 5.6 Revision Date 13.05.2014

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GENERIC EU MSDS - NO COUNTRY SPECIFIC DATA - NO OEL DATA

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifiers

Product name : Propylene glycol monomethyl ether acetate

Product Number : 484431

Brand : Sigma-Aldrich

Index-No. : 607-195-00-7

REACH No. : A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

CAS-No. : 108-65-6

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

Identified uses : Laboratory chemicals, Manufacture of substances

#### 1.3 Details of the supplier of the safety data sheet

Company : Sigma-Aldrich Chemie GmbH  
Industriestrasse 25  
CH-9471 BUCHS

Telephone : +41 81-755-2511

Fax : +41 81-756-5449

E-mail address : eurtechserv@sial.com

#### 1.4 Emergency telephone number

Emergency Phone # : +41 81-755-2255  
145(CH)  
+41 44-251-5151 (Tox-Zentrum)

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### Classification according to Regulation (EC) No 1272/2008

Flammable liquids (Category 3), H226

For the full text of the H-Statements mentioned in this Section, see Section 16.

##### Classification according to EU Directives 67/548/EEC or 1999/45/EC

R10

For the full text of the R-phrases mentioned in this Section, see Section 16.

#### 2.2 Label elements

##### Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal word

Warning

Hazard statement(s)

H226

Flammable liquid and vapour.

Precautionary statement(s) none

Supplemental Hazard Statements none

### 2.3 Other hazards - none

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Synonyms : DOWANOL® PMA  
MPA  
1-Methoxy-2-propyl acetate  
1,2-Propanediol monomethyl ether acetate  
Propylene glycol methyl ether acetate  
PGMEA

Formula : C<sub>6</sub>H<sub>12</sub>O<sub>3</sub>  
Molecular Weight : 132,16 g/mol  
CAS-No. : 108-65-6  
EC-No. : 203-603-9  
Index-No. : 607-195-00-7

#### Hazardous ingredients according to Regulation (EC) No 1272/2008

Component	Classification	Concentration
<b>2-Methoxypropanol</b>		
CAS-No. 1589-47-5 EC-No. 216-455-5 Index-No. 603-106-00-0	Flam. Liq. 3; Skin Irrit. 2; Eye Dam. 1; Repr. 1B; STOT SE 3; H226, H315, H318, H335, H360D	< 0,3 %
<b>2-Methoxy-1-methylethyl acetate***</b>		
CAS-No. 108-65-6 EC-No. 203-603-9 Index-No. 607-195-00-7	Flam. Liq. 3; H226	<= 100 %

#### Hazardous ingredients according to Directive 1999/45/EC

Component	Classification	Concentration
<b>2-Methoxypropanol</b>		
CAS-No. 1589-47-5 EC-No. 216-455-5 Index-No. 603-106-00-0	T, Repr.Cat.2, R61 - R10 - R37/38 - R41	< 0,5 %
<b>2-Methoxy-1-methylethyl acetate</b>		
CAS-No. 108-65-6 EC-No. 203-603-9 Index-No. 607-195-00-7	R10	<= 100 %

\* PBT substance, \*\* vPvB substance, \*\*\* WEL substance

For the full text of the H-Statements and R-Phrases mentioned in this Section, see Section 16

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

**If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact**

Wash off with soap and plenty of water. Consult a physician.

**In case of eye contact**

Flush eyes with water as a precaution.

**If swallowed**

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

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

no data available

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**SECTION 5: Firefighting measures****5.1 Extinguishing media****Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**5.2 Special hazards arising from the substance or mixture**

Carbon oxides

**5.3 Advice for firefighters**

Wear self contained breathing apparatus for fire fighting if necessary.

**5.4 Further information**

Use water spray to cool unopened containers.

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**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. For personal protection see section 8.

**6.2 Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

**6.3 Methods and materials for containment and cleaning up**

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

**6.4 Reference to other sections**

For disposal see section 13.

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**SECTION 7: Handling and storage****7.1 Precautions for safe handling**

Avoid exposure - obtain special instructions before use. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. For precautions see section 2.2.

**7.2 Conditions for safe storage, including any incompatibilities**

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Components with workplace control parameters

Component	CAS-No.	Value	Control parameters	Basis
2-Methoxy-1-methylethyl acetate	108-65-6	TWA	50 ppm 275 mg/m3	Europe. Commission Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values
	Remarks	Identifies the possibility of significant uptake through the skin Indicative		
		STEL	100 ppm 550 mg/m3	Europe. Commission Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values
		Identifies the possibility of significant uptake through the skin Indicative		

### 8.2 Exposure controls

#### Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

#### Personal protective equipment

##### Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

##### Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

##### Full contact

Material: butyl-rubber

Minimum layer thickness: 0,3 mm

Break through time: > 480 min

Material tested: Butoject® (KCL 897 / Aldrich Z677647, Size M)

##### Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0,4 mm

Break through time: 79 min

Material tested: Camatril® (KCL 730 / Aldrich Z677442, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

### Body Protection

impervious clothing, Flame retardant antistatic protective clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

### Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

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## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

- |   |   |
|---|---|
| a) Appearance                                   | Form: clear, liquid<br>Colour: colourless                           |
| b) Odour  | no data available   |
| c) Odour Threshold                              | no data available   |
| d) pH   | no data available   |
| e) Melting point/freezing point                 | Melting point/range: < -87 °C                                       |
| f) Initial boiling point and boiling range      | 145 - 146 °C - lit.   |
| g) Flash point                                  | 43 °C - closed cup - DIN 51755 Part 1                               |
| h) Evaporation rate                             | no data available   |
| i) Flammability (solid, gas)                    | no data available   |
| j) Upper/lower flammability or explosive limits | Upper explosion limit: 13,1 %(V)<br>Lower explosion limit: 1,3 %(V) |
| k) Vapour pressure                              | 3,37 hPa at 20 °C   |
| l) Vapour density                               | no data available   |
| m) Relative density                             | 0,97 g/cm <sup>3</sup> at 25 °C                                     |
| n) Water solubility                             | 19,8 g/l at 25 °C   |
| o) Partition coefficient: n-octanol/water       | log Pow: 0,43   |
| p) Auto-ignition temperature                    | no data available   |
| q) Decomposition temperature                    | no data available   |
| r) Viscosity                                    | no data available   |
| s) Explosive properties                         | no data available   |
| t) Oxidizing properties                         | no data available   |

### 9.2 Other safety information

no data available

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## SECTION 10: Stability and reactivity

### 10.1 Reactivity

no data available

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

no data available

### 10.4 Conditions to avoid

Heat, flames and sparks.

### 10.5 Incompatible materials

Strong oxidizing agents

### 10.6 Hazardous decomposition products

Other decomposition products - no data available

In the event of fire: see section 5

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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

LD50 Oral - rat - 8.532 mg/kg

LD50 Dermal - rabbit - > 5.000 mg/kg

#### Skin corrosion/irritation

Skin - rabbit

Result: No skin irritation

#### Serious eye damage/eye irritation

no data available

#### Respiratory or skin sensitisation

Maximisation Test - guinea pig

Did not cause sensitisation on laboratory animals.

#### Germ cell mutagenicity

no data available

#### Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

#### Reproductive toxicity

no data available

#### Specific target organ toxicity - single exposure

no data available

#### Specific target organ toxicity - repeated exposure

no data available

#### Aspiration hazard

no data available

#### Additional Information

RTECS: A18925000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

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## SECTION 12: Ecological information

### 12.1 Toxicity

Toxicity to fish	mortality LC50 - <i>Salmo gairdneri</i> - 100 - 180 mg/l - 96 h (OECD Test Guideline 203)
Toxicity to daphnia and other aquatic invertebrates	Immobilization EC50 - <i>Daphnia magna</i> (Water flea) - > 500 mg/l - 48 h (Tested according to Annex V of Directive 67/548/EEC.)

### 12.2 Persistence and degradability

Biodegradability	Biotic/Aerobic - Exposure time 8 d Result: 100 % - Readily biodegradable.
Biochemical Oxygen Demand (BOD)	0,36 mg/l
Chemical Oxygen Demand (COD)	1,74 mg/g

### 12.3 Bioaccumulative potential

no data available

### 12.4 Mobility in soil

no data available

### 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

### 12.6 Other adverse effects

Harmful to aquatic life.

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## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

#### Contaminated packaging

Dispose of as unused product.

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## SECTION 14: Transport information

### 14.1 UN number

ADR/RID: 3271	IMDG: 3271	IATA: 3271
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### 14.2 UN proper shipping name

ADR/RID:	ETHERS, N.O.S. (2-Methoxy-1-methylethyl acetate)
IMDG:	ETHERS, N.O.S. (2-Methoxy-1-methylethyl acetate)
IATA:	Ethers, n.o.s. (2-Methoxy-1-methylethyl acetate)

### 14.3 Transport hazard class(es)

ADR/RID: 3	IMDG: 3	IATA: 3
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### 14.4 Packaging group

ADR/RID: III	IMDG: III	IATA: III
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### 14.5 Environmental hazards

ADR/RID: no	IMDG Marine pollutant: no	IATA: no
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### 14.6 Special precautions for user

no data available

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## SECTION 15: Regulatory information

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

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

no data available

### 15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

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## SECTION 16: Other information

### Full text of H-Statements referred to under sections 2 and 3.

Eye Dam.	Serious eye damage
Flam. Liq.	Flammable liquids
H226	Flammable liquid and vapour.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H360D	May damage the unborn child.
Repr.	Reproductive toxicity
Skin Irrit.	Skin irritation
STOT SE	Specific target organ toxicity - single exposure

### Full text of R-phrases referred to under sections 2 and 3

T	Toxic
R10	Flammable.
R37/38	Irritating to respiratory system and skin.
R41	Risk of serious damage to eyes.
R61	May cause harm to the unborn child.
Repr.Cat.2	Toxic to Reproduction Category 2

### Further information

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