

Safety data sheet

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BASF Safety data sheet according to the United Nations' Globally Harmonized System (UN GHS)

Date / Revised: 12.09.2023

Version: 5.0

Product: **SOLVENON® PM**

(ID no. 30034847/SDS_GEN_00/EN)

Date of print 10.06.2024

1. Identification

Product identifier

SOLVENON® PM

Chemical name: 1-methoxy-2-propanol

INDEX-Number: 603-064-00-3

CAS Number: 107-98-2

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

Relevant identified uses: solvent(s)

Details of the supplier of the safety data sheet

Company:

BASF SE

67056 Ludwigshafen

GERMANY

Operating Division Petrochemicals

Telephone: +49 621 60-42151

E-mail address: sds-petrochemicals@basf.com

Emergency telephone number

International emergency number:

Telephone: +49 180 2273-112

2. Hazards Identification

Classification of the substance or mixture

According to UN GHS criteria

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Flam. Liq. 3

Acute Tox. 5 (oral)

STOT SE 3 (Vapours may cause drowsiness and dizziness.)

For the classifications not written out in full in this section the full text can be found in section 16.

Label elements

Globally Harmonized System (GHS)

Pictogram:



Signal Word:

Warning

Hazard Statement:

H226	Flammable liquid and vapour.
H303	May be harmful if swallowed.
H336	May cause drowsiness or dizziness.

Precautionary Statements (Prevention):

P271	Use only outdoors or in a well-ventilated area.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280	Wear protective gloves and eye protection or face protection.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P243	Take action to prevent static discharges.
P241	Use explosion-proof electrical, ventilating and lighting equipment.
P240	Ground and bond container and receiving equipment.
P242	Use non-sparking tools.

Precautionary Statements (Response):

P312	Call a POISON CENTER or physician if you feel unwell.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P370 + P378	In case of fire: Use alcohol-resistant foam, carbon dioxide, dry powder or water spray for extinction.

Precautionary Statements (Storage):

P233	Keep container tightly closed.
P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

Precautionary Statements (Disposal):

P501	Dispose of contents and container to hazardous or special waste collection point.
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According to UN GHS criteria

Hazard determining component(s) for labelling: 1-Methoxypropan-2-ol

Other hazards

According to UN GHS criteria

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

See section 12 - Results of PBT and vPvB assessment.

3. Composition/Information on Ingredients

Substances

Chemical nature

1-Methoxypropan-2-ol (Content (W/W): $\geq 99,5$ %)

CAS Number: 107-98-2

EC-Number: 203-539-1

INDEX-Number: 603-064-00-3

Hazardous ingredients (GHS)

According to UN GHS criteria

1-Methoxypropan-2-ol

Content (W/W): $\geq 99,5$ % - ≤ 100 %

CAS Number: 107-98-2

EC-Number: 203-539-1

INDEX-Number: 603-064-00-3

Flam. Liq. 3

Acute Tox. 5 (oral)

STOT SE 3 (drowsiness and dizziness)

H226, H303, H336

2-Methoxypropanol

Content (W/W): ≥ 0 % - $< 0,3$ %

CAS Number: 1589-47-5

EC-Number: 216-455-5

Flam. Liq. 3

Skin Corr./Irrit. 2

Eye Dam./Irrit. 1

Repr. 1B (unborn child)

STOT SE 3 (irr. to respiratory syst.)

H226, H318, H315, H335, H360

For the classifications not written out in full in this section the full text can be found in section 16.

Mixtures

Not applicable

4. First-Aid Measures

Description of first aid measures

First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Immediately remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air, seek medical attention.

On skin contact:

Wash thoroughly with soap and water

On contact with eyes:

Wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

On ingestion:

Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.

Hazards: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11. (Further) symptoms and / or effects are not known so far

Indication of any immediate medical attention and special treatment needed

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media:

dry powder, water spray, carbon dioxide, alcohol-resistant foam

Unsuitable extinguishing media for safety reasons:

water jet

Additional information:

Use extinguishing measures to suit surroundings.

Special hazards arising from the substance or mixture

Flammable liquid Cool endangered containers with water-spray. See SDS section 7 - Handling and storage.

Advice for fire-fighters

Special protective equipment:

Wear a self-contained breathing apparatus. Special protective equipment for firefighters

Further information:

Evacuate area of all unnecessary personnel. Fight fire from maximum distance.

Extend fire extinguishing measures to the surroundings. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. Accidental Release Measures

High risk of slipping due to leakage/spillage of product.

Release of substance/product can cause fire or explosion. Shut off or stop source of leak. Shut off or stop released substance/product under safe conditions.

Pack in tightly closed containers for disposal.

Personal precautions, protective equipment and emergency procedures

Handle in accordance with good industrial hygiene and safety practice.

Avoid all sources of ignition: heat, sparks, open flame. Use antistatic tools.

Environmental precautions

Discharge into the environment must be avoided. Collect contaminated washing water for appropriate disposal.

Methods and material for containment and cleaning up

Pick up with suitable appliance and dispose of. Spills should be contained, solidified, and placed in suitable containers for disposal. Dispose of absorbed material in accordance with regulations.

7. Handling and Storage

Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice.

Protection against fire and explosion:

Avoid all sources of ignition: heat, sparks, open flame. Ground all transfer equipment properly to prevent electrostatic discharge.

Conditions for safe storage, including any incompatibilities

Further information on storage conditions: Keep container tightly closed and dry; store in a cool place.

Specific end use(s)

For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

8. Exposure Controls/Personal Protection

Control parameters

Components with occupational exposure limits

107-98-2: 1-Methoxypropan-2-ol

1589-47-5: 2-Methoxypropanol

Exposure controlsPersonal protective equipment

Respiratory protection:

Gas filter for gases/vapours of organic compounds (boiling point >65 °C, e. g. EN 14387 Type A)

Hand protection:

Chemical resistant protective gloves (EN ISO 374-1)

Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN ISO 374-1):

butyl rubber (butyl) - 0.7 mm coating thickness

Manufacturer's directions for use should be observed because of great diversity of types.

Supplementary note: The specifications are based on tests, literature data and information of glove manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g. temperature) it must be considered, that the practical usage of a chemical-protective glove in practice may be much shorter than the permeation time determined through testing.

Eye protection:

Safety glasses with side-shields (frame goggles) (e.g. EN 166)

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

General safety and hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wearing of closed work clothing is required additionally to the stated personal protection equipment.

9. Physical and Chemical Properties**Information on basic physical and chemical properties**

Form:	liquid	
Colour:	colourless	
Odour:	mild, alcohol-like	
Odour threshold:	not determined	
pH value:	(20 °C) soluble, neutral	
Melting point:	-95 °C (1.013 hPa)	(other)
Boiling point:	Literature data. 119,8 °C (1.013 hPa)	(other)
Flash point:	31,5 °C	(DIN 51755, closed cup)

Evaporation rate:	Value can be approximated from Henry's Law Constant or vapor pressure.	
Flammability:	Flammable liquid and vapour.	(derived from flash - and boiling point)
Lower explosion limit:	1,7 %(V) (27 °C) The lower explosion point of the substance/mixture has been determined. The explosion point describes the temperature of a flammable liquid at which the concentration of the saturated vapour mixed with air equals the lower explosion limit.	(air)
Upper explosion limit:	For liquids not relevant for classification and labelling.	
Ignition temperature:	287 °C	(Directive 92/69/EEC, A.15)
Vapour pressure:	17,1 hPa (25,1 °C) dynamic	(measured)
Density:	0,92 g/cm ³ (20 °C, 1.013 hPa)	(DIN 51757)
Relative density:	0,92 (20 °C)	
Relative vapour density (air):	3,1 (20 °C) Heavier than air.	(calculated)
Solubility in water:	Literature data., miscible (20 °C)	(other)
Solubility (qualitative) solvent(s):	organic solvents soluble	
Partitioning coefficient n-octanol/water (log Kow):	-0,43 (25 °C)	(measured)
Self ignition:	Literature data. Temperature: 20 °C Based on its structural properties the product is not classified as self-igniting.	Test type: Spontaneous self-ignition at room-temperature.
Thermal decomposition:	No data available.	
Viscosity, dynamic:	1,81 mPa.s (20 °C) Literature data.	
Explosion hazard:	Based on the chemical structure there is no indication of explosive properties.	
Fire promoting properties:	Based on its structural properties the product is not classified as oxidizing.	

Other information

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pKA:	The substance does not dissociate.	
Adsorption/water - soil:	log KOC: -0,69	(calculated)
	Adsorption to solid soil phase is not expected.	
Surface tension:	70,7 mN/m (20 °C)	(OECD-Guideline 115, OECD harmonized ring method)
	Based on chemical structure, surface activity is not to be expected.	
Grain size distribution:	Test substance	The substance / product is marketed or used in a non solid or granular form.
Molar mass:	90,12 g/mol	

10. Stability and Reactivity

Reactivity

When heated can give off ignitable vapours.

Corrosion to metals: No corrosive effect on metal.

Formation of flammable gases: Remarks: Forms no flammable gases in the presence of water.

Chemical stability

The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions

Reacts with strong oxidizing agents.

Conditions to avoid

Avoid extreme heat. Avoid sources of ignition.

Incompatible materials

Substances to avoid:
strong oxidizing agents

Hazardous decomposition products

Hazardous decomposition products:
No hazardous decomposition products if stored and handled as prescribed/indicated.

11. Toxicological Information

Information on toxicological effects

Acute toxicity

Assessment of acute toxicity:
Of low toxicity after single ingestion. Virtually nontoxic by inhalation. Virtually nontoxic after a single skin contact.

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Experimental/calculated data:

LD50 rat (oral): 4.016 mg/kg (similar to OECD guideline 401)

LC0 rat (by inhalation): > 7000 ppm 6 h (similar to OECD guideline 403)

The vapour was tested.

LD50 rat (dermal): > 2.000 mg/kg (similar to OECD guideline 402)

Irritation

Assessment of irritating effects:

Not irritating to the skin. Not irritating to the eyes.

Experimental/calculated data:

Skin corrosion/irritation rabbit: non-irritant (similar to OECD guideline 404)

Serious eye damage/irritation rabbit: non-irritant (similar to OECD guideline 405)

Respiratory/Skin sensitization

Assessment of sensitization:

Skin sensitizing effects were not observed in animal studies.

Experimental/calculated data:

guinea pig: Non-sensitizing. (other)

Germ cell mutagenicity

Assessment of mutagenicity:

The substance was not mutagenic in bacteria. The substance was not mutagenic in mammalian cell culture. The substance was not mutagenic in a test with mammals.

Carcinogenicity

Assessment of carcinogenicity:

In long-term studies in rats and mice in which the substance was given by inhalation, a carcinogenic effect was not observed.

Reproductive toxicity

Assessment of reproduction toxicity:

The results of animal studies gave no indication of a fertility impairing effect.

Developmental toxicity

Assessment of teratogenicity:

No indications of a developmental toxic / teratogenic effect were seen in animal studies.

Experiences in humans

Experimental/calculated data:

High concentrations have a narcotizing effect.

Specific target organ toxicity (single exposure)

Assessment of STOT single:

Possible narcotic effects (drowsiness or dizziness).

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:

No adverse effects were observed after repeated dermal exposure in animal studies. The substance may cause damage to the liver after repeated inhalation of high doses. The substance may cause damage to the liver after repeated ingestion of high doses, as shown in animal studies.

Aspiration hazard

not applicable

12. Ecological Information

Toxicity

Assessment of aquatic toxicity:

There is a high probability that the product is not acutely harmful to aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

Toxicity to fish:

LC50 (96 h) > 6.800 mg/l, *Leuciscus idus* (DIN 38412 Part 15, static)

Nominal concentration.

Aquatic invertebrates:

LC50 (48 h) 23.300 mg/l, *Daphnia magna* (*Daphnia* test acute, static)

Nominal concentration.

Aquatic plants:

EC50 (7 d) > 1.000 mg/l (growth rate), *Pseudokirchneriella subcapitata* (Algal growth inhibition test)

Nominal concentration.

Microorganisms/Effect on activated sludge:

EC50 (3 h) > 1.000 mg/l, activated sludge, domestic (OECD Guideline 209)

Nominal concentration. Literature data.

Chronic toxicity to fish:

No data available.

Chronic toxicity to aquatic invertebrates:

No data available.

Assessment of terrestrial toxicity:

No data available.

Persistence and degradability

Assessment biodegradation and elimination (H₂O):

Readily biodegradable (according to OECD criteria).

Elimination information:

90 - 100 % DOC reduction (28 d) (OECD 301E/92/69/EEC, C.4-B) (aerobic, municipal sewage treatment plant effluent)

Assessment of stability in water:

According to structural properties, hydrolysis is not expected/probable.

The product has not been tested. The statement has been derived from the structure of the product.

Information on Stability in Water (Hydrolysis):

According to structural properties, hydrolysis is not expected/probable.

Bioaccumulative potential

Assessment bioaccumulation potential:

Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.

Bioaccumulation potential:

No data available.

Mobility in soil

Assessment transport between environmental compartments:

Volatility: The substance will not evaporate into the atmosphere from the water surface.

Adsorption in soil: Adsorption to solid soil phase is not expected.

Results of PBT and vPvB assessment

According to Annex XIII of Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): The product does not fulfill the criteria for PBT (Persistent/bioaccumulative/toxic) and vPvB (very persistent/very bioaccumulative).

Other adverse effects

The substance is not listed in Regulation (EC) 1005/2009 on substances that deplete the ozone layer.

Additional information

Adsorbable organically-bound halogen (AOX):

This product contains no organically-bound halogen.

Other ecotoxicological advice:

Inhibition of degradation activity in activated sludge is not to be anticipated during correct introduction of low concentrations.

13. Disposal Considerations

Waste treatment methods

Dispose of in accordance with national, state and local regulations.

Contaminated packaging:
Disposal must be made according to official regulations.

14. Transport Information

Land transport

ADR

UN number or ID number: UN3092
UN proper shipping name: 1-METHOXY-2-PROPANOL

Transport hazard class(es): 3
Packing group: III
Environmental hazards: no
Special precautions for user: Tunnel code: D/E

RID

UN number or ID number: UN3092
UN proper shipping name: 1-METHOXY-2-PROPANOL

Transport hazard class(es): 3
Packing group: III
Environmental hazards: no
Special precautions for user: None known

Inland waterway transport

ADN

UN number or ID number: UN3092
UN proper shipping name: 1-METHOXY-2-PROPANOL

Transport hazard class(es): 3
Packing group: III
Environmental hazards: no
Special precautions for user: None known

Transport in inland waterway vessel

UN number or ID number: UN3092
UN proper shipping name: 1-METHOXY-2-PROPANOL

Transport hazard class(es): 3
Packing group: III
Environmental hazards: no
Type of inland waterway vessel: N
Cargo tank design: 3

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Cargo tank type: 2

Sea transport

IMDG

UN number or ID number: UN 3092
UN proper shipping name: 1-METHOXY-2-PROPANOL

Transport hazard class(es): 3
Packing group: III
Environmental hazards: no
Marine pollutant: NO
Special precautions for user: EmS: F-E; S-D

Air transport

IATA/ICAO

UN number or ID number: UN 3092
UN proper shipping name: 1-METHOXY-2-PROPANOL

Transport hazard class(es): 3
Packing group: III
Environmental hazards: No Mark as dangerous for the environment is needed
Special precautions for user: None known

Maritime transport in bulk according to IMO instruments

Regulation: IBC-Code

Product name: Propylene glycol monoalkyl ether
Pollution category: Z
Ship Type: 3

15. Regulatory Information

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

Not applicable

16. Other Information

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Full text of classifications, hazard symbols and hazard statements, if mentioned in section 2 or 3:

Flam. Liq.	Flammable liquids
Acute Tox.	Acute toxicity
STOT SE	Specific target organ toxicity — single exposure
Skin Corr./Irrit.	Skin corrosion/irritation
Eye Dam./Irrit.	Serious eye damage/eye irritation
Repr.	Reproductive toxicity
H226	Flammable liquid and vapour.
H303	May be harmful if swallowed.
H336	May cause drowsiness or dizziness.
H318	Causes serious eye damage.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H360	May damage the unborn child.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

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