

Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH)
according to Regulation (EU) 2020/878

205X00
Version 1.0

Graining Pen
Revision date 16 Oct 2025



Hazard components for labelling

1-methoxy-2-propanol
C.I. Solvent Red 122
C.I. Solvent Yellow 88

Supplemental hazard information

not applicable

2.3 Other hazards

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.
This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

SECTION 3: Composition/information on ingredients.

3.2 Mixtures

Description

Dye solution

Hazardous ingredients

CAS No. EC No. Index No.	Substance name REACH No. Classification according to Regulation (EC) No 1272/2008 [CLP]	% [mass]
107-98-2 203-539-1 603-064-00-3	1-methoxy-2-propanol 01-2119457435-35-xxxx Flam. Liq. 3 H226 / STOT SE 3 H336 ATE (oral): = 4,016 mg/kg ATE (dermal): > 2,000 mg/kg ATE (inhalative): > 25.8 mg/L (4 h)	50,0 < 70,0
34590-94-8 252-104-2 -	(2-methoxymethylethoxy)propanol 01-2119450011-60-xxxx ATE (dermal): = 9,510 mg/kg ATE (oral): > 5,000 mg/kg ATE (inhalative): = 3.35 mg/L (4 h) Substance with a common (EC) occupational exposure limit value.	8,00 < 10,0
85029-57-8 285-082-8 -	C.I. Solvent Red 122 Skin Sens. 1B H317 / Aquatic Chronic 3 H412 ATE (dermal): > 2,000 mg/kg ATE (oral): > 2,000 mg/kg	0,250 < 0,300
85408-46-4 287-007-4 -	C.I. Solvent Yellow 88 01-2120766190-58-xxxx Skin Sens. 1A H317 / Aquatic Chronic 2 H411 ATE (oral): > 5,000 mg/kg ATE (inhalative): > 9.5 mg/L (4 h)	0,150 < 0,200

Remark

Full text of H- and EUH-statements: see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

In all cases of doubt, or when symptoms persist, seek medical advice. If unconscious but breathing normally, place in recovery position and seek medical advice.

Following inhalation

Remove casualty to fresh air and keep warm and at rest. In case of irregular breathing or respiratory arrest provide artificial respiration.

Following skin contact

Remove contaminated, saturated clothing immediately. After contact with skin, wash immediately with plenty of water and soap. Do not use solvents or thinners. Wash contaminated clothing before reuse.

After eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical advice immediately.

Following ingestion

If swallowed, rinse mouth with water (only if the person is conscious). Seek medical advice immediately. Keep victim calm. Do NOT induce vomiting.

Self-protection of the first aider

First aider: Pay attention to self-protection!

4.2 Most important symptoms and effects, both acute and delayed

Symptoms

In all cases of doubt, or when symptoms persist, seek medical advice.

4.3 Indication of any immediate medical attention and special treatment needed

First Aid, decontamination, treatment of symptoms.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

alcohol resistant foam, Carbon dioxide (CO2), Powder, spray mist, (water)

Unsuitable extinguishing media

Strong water jet

5.2 Special hazards arising from the substance or mixture

Dense black smoke occurs during fire. Inhalation of hazardous decomposing products can cause serious health damage.

Hazardous combustion products

Hazardous combustion products: Carbon dioxide (CO2), Carbon monoxide, smoke, Nitrogen oxides (NOx).

5.3 Advice for firefighters

Provide a conveniently located respiratory protective device. Cool closed containers that are near the source of the fire. Do not allow water used to extinguish fire to enter drains, ground or waterways.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Remove all sources of ignition. Ventilate affected area. Do not breathe vapours.

6.2 Environmental precautions

Do not allow to enter into surface water or drains. If the product contaminates lakes, rivers or sewages, inform competent authorities in accordance with local regulations.

6.3 Methods and material for containment and cleaning up

For containment

Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculite, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see section 13).

For cleaning up

Clean using cleansing agents. Do not use solvents.

6.4 Reference to other sections

Safe handling: see section 7

Personal protection equipment: refer to section 8

Disposal: see section 13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advices on safe handling

Avoid contact with skin, eyes and clothes. Avoid respiration of swarf. Personal protection equipment: see section 8. Do not empty containers with pressure - no pressure vessel! Always keep in containers that correspond to the material of the original container. Follow the legal protection and safety regulations.

Advices on general occupational hygiene

When using do not eat, drink or smoke.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH)
according to Regulation (EU) 2020/878

205X00
Version 1.0

Graining Pen
Revision date 16 Oct 2025



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Storage in accordance with the Ordinance on Industrial Safety and Health (BetrSiVO). Keep container tightly closed. Do not empty containers with pressure - no pressure vessel! Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks. Soils have to conform to the "Guidelines for avoidance of ignition hazards due to electrostatic charges (TRGS 727)".

Hints on joint storage

Keep away from strongly acidic and alkaline materials as well as oxidizers.

Storage class LGK3 - Flammable liquids

Further information on storage conditions

Keep container tightly closed. Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks.

7.3 Specific end use(s)

Observe technical data sheet. Observe instructions for use.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

CAS No.	Substance name	Source	Long-term /short-term (Spitzenbegrenzung)
34590-94-8	(2-methoxymethylethoxy)propanol	WEL	308 / - (-) mg/m ³ (may be absorbed through the skin)
107-98-2	1-methoxy-2-propanol	WEL	375 / 560 (-) mg/m ³ (may be absorbed through the skin)
-	Ethanol	WEL	1,920 / - (-) mg/m ³

Additional information

Long-term: Long-term occupational exposure limit value

short-term: short-term occupational exposure limit value

Biological limit values

No data available

DNEL worker

CAS No.	Substance name	DNEL type	DNEL value
34590-94-8	(2-methoxymethylethoxy)propanol	DNEL long-term inhalative (systemic)	308 mg/m ³
34590-94-8	(2-methoxymethylethoxy)propanol	DNEL long-term dermal (systemic)	283 mg/kg
107-98-2	1-methoxy-2-propanol	DNEL long-term inhalative (systemic)	369 mg/m ³
107-98-2	1-methoxy-2-propanol	DNEL acute inhalative (systemic)	553.5 mg/m ³
107-98-2	1-methoxy-2-propanol	DNEL acute inhalative (local)	553.5 mg/m ³
107-98-2	1-methoxy-2-propanol	DNEL long-term dermal (systemic)	183 mg/kg

DNEL Consumer

CAS No.	Substance name	DNEL type	DNEL value
34590-94-8	(2-methoxymethylethoxy)propanol	DNEL long-term inhalative (systemic)	37.2 mg/m ³
34590-94-8	(2-methoxymethylethoxy)propanol	DNEL long-term dermal (systemic)	121 mg/kg
34590-94-8	(2-methoxymethylethoxy)propanol	DNEL long-term oral (repeated)	36 mg/kg
107-98-2	1-methoxy-2-propanol	DNEL long-term inhalative (systemic)	43.9 mg/m ³
107-98-2	1-methoxy-2-propanol	DNEL long-term dermal (systemic)	78 mg/kg

Safety Data Sheet
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according to Regulation (EU) 2020/878

205X00
Version 1.0

Graining Pen
Revision date 16 Oct 2025



Print date 16 Oct 2025

107-98-2	1-methoxy-2-propanol	DNEL long-term oral (repeated)	33 mg/kg
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PNEC

CAS No.	Substance name	PNEC type	PNEC Value
34590-94-8	(2-methoxymethylethoxy)propanol	PNEC sediment, freshwater	70.2 mg/kg
34590-94-8	(2-methoxymethylethoxy)propanol	PNEC aquatic, marine water	1.9 mg/L
34590-94-8	(2-methoxymethylethoxy)propanol	PNEC aquatic, intermittent release	190 mg/L
34590-94-8	(2-methoxymethylethoxy)propanol	PNEC aquatic, freshwater	19 mg/L
34590-94-8	(2-methoxymethylethoxy)propanol	PNEC sediment, marine water	7.02 mg/kg
34590-94-8	(2-methoxymethylethoxy)propanol	PNEC soil, freshwater	2.74 mg/kg
34590-94-8	(2-methoxymethylethoxy)propanol	PNEC sewage treatment plant (STP)	4,168 mg/L
107-98-2	1-methoxy-2-propanol	PNEC sediment, freshwater	52.3 mg/kg
107-98-2	1-methoxy-2-propanol	PNEC aquatic, marine water	1 mg/L
107-98-2	1-methoxy-2-propanol	PNEC aquatic, intermittent release	100 mg/L
107-98-2	1-methoxy-2-propanol	PNEC aquatic, freshwater	10 mg/L
107-98-2	1-methoxy-2-propanol	PNEC sediment, marine water	5.2 mg/kg
107-98-2	1-methoxy-2-propanol	PNEC soil, freshwater	4.59 mg/kg
107-98-2	1-methoxy-2-propanol	PNEC sewage treatment plant (STP)	100 mg/L

8.2 Exposure controls

Provide good ventilation. This can be achieved with local or room suction. If this should not be sufficient to keep aerosol and solvent vapour concentration below the exposure limit values, a suitable respiratory protection must be used.

Personal protection equipment

Respiratory protection

If concentration of solvents is beyond the occupational exposure limit values, approved and suitable respiratory protection must be used. Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190). Use only respiratory protection equipment with CE-symbol including four digit test number.

Hand protection

Suitable material: NBR (Nitrile rubber)

Thickness of the glove material >= 0.4 mm

Breakthrough time >= 480 min

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. Observe the instructions and details for use, storage, maintenance and replacement provided by the protective glove manufacturer. Penetration time of glove material depending on intensity and duration of exposure to skin. Recommended glove articles: EN ISO 374

Skin protection

Barrier creams can help protecting exposed skin areas. In no case should they be used after contact.

Eye/face protection

Eye glasses with side protection: EN 166

Body protection

When handling with chemical substances, protective clothing with CE-labels including the four control digits must be worn. Anti-static clothing including shoes are recommended.

Remark

After contact clean skin thoroughly with water and soap or use appropriate cleanser.

Environmental exposure controls

Do not allow to enter into surface water or drains. See section 7. No additional measures necessary.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	Liquid
Colour	refer to label

205X00
Version 1.0

Graining Pen
Revision date 16 Oct 2025

Odour	characteristic
pH at 20 °C	not applicable
Melting point/freezing point	-96 °C
	Source: 1-methoxy-2-propanol
Initial boiling point and boiling range	78 °C
	Source: Ethanol
Flash point	12 °C
flammability	Highly flammable liquid and vapour.
Lower explosion limit at 20°C	1.1 Vol-%
	Source: (2-methoxymethylethoxy)propanol
Upper explosion limit at 20°C	15 Vol-%
	Source: Ethanol
Vapour pressure at 20°C	30.297 mbar
Relative vapour density	not applicable
Density at 20 °C	0.9 kg/l
Water solubility at 20°C	partially soluble
Partition coefficient: n-octanol/water	see section 12
Auto-ignition temperature	207 °C
	Source: (2-methoxymethylethoxy)propanol
Decomposition temperature	not determined
Viscosity at 20 °C	80 mm ² /s
particle characteristics	not applicable

9.2 Other information

solvent content	92.3 %
Water content:	0 %

SECTION 10: Stability and reactivity

10.1 Reactivity

No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to section 7.

10.3 Possibility of hazardous reactions

Keep away from strong acids, strong bases and strong oxidizing agents to avoid exothermic reactions.

10.4 Conditions to avoid

Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to section 7. Hazardous decomposition byproducts may form with exposure to high temperatures.

10.5 Incompatible materials

No further relevant information available.

10.6 Hazardous decomposition products

Decomposition products in case of fire: see section 5.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Based on available data, the classification criteria are not met.

(2-methoxymethylethoxy)propanol

LD50: dermal (Rabbit): = 9,510 mg/kg

LD50: oral (Rat): > 5,000 mg/kg

LC50: inhalative (Rat): = 3.35 mg/L (4 h)

1-methoxy-2-propanol

LD50: oral (Rat): = 4,016 mg/kg

LD50: dermal (Rabbit): > 2,000 mg/kg

LC50: inhalative (Rat): > 25.8 mg/L (4 h)

C.I. Solvent Red 122

LD50: dermal (Rabbit): > 2,000 mg/kg

LD50: oral (Rat): > 2,000 mg/kg

C.I. Solvent Yellow 88

LD50: oral (Rat): > 5,000 mg/kg

LC50: inhalative (Rat): > 9.5 mg/L (4 h)

Skin corrosion/irritation

Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation

Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation

May cause an allergic skin reaction.

Overall assessment on CMR properties

Based on available data, the classification criteria are not met.

STOT-single exposure

May cause drowsiness or dizziness.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

Practical experience/human evidence

Inhaling of solvent components above the MWC-value can lead to health damage, e.g. irritation of the mucous membrane and respiratory organs, as well as damage to the liver, kidneys and the central nerve system. Indications for this are: Headache, Dizziness, fatigue, amyostenia, Dizziness, in serious cases: unconsciousness. Solvents may cause some of the aforementioned effects through skin resorption. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and/or absorption through skin. Splashing may cause eye irritation and reversible damage.

11.2 Information on other hazards

Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

SECTION 12: Ecological information

12.1 Toxicity

Based on available data, the classification criteria are not met.

(2-methoxymethylethoxy)propanol

EC10: (Pseudomonas putida): = 4,168 mg/L (18 h)

C.I. Solvent Yellow 88

EC50 > 100 mg/L (3 h)

Algae toxicity

(2-methoxymethylethoxy)propanol

ErC50: (Pseudokirchneriella subcapitata): > 969 mg/L (96 h)

Method: OECD 201

1-methoxy-2-propanol

ErC50: (Pseudokirchneriella subcapitata): > 1,000 mg/L (168 h)

Method: OECD 201

ErC50: (Pseudokirchneriella subcapitata): > 1,000 mg/L (168 h)

Daphnia toxicity

Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH)
according to Regulation (EU) 2020/878

205X00
Version 1.0

Graining Pen
Revision date 16 Oct 2025



(2-methoxymethylethoxy)propanol

EC50 (Daphnia magna (Big water flea)): = 1,919 mg/L (48 h)
Method: OECD 202

NOEC (Daphnia magna (Big water flea)): > 0.5 mg/L (22 d)

Fish toxicity

LC50: (Poecilia reticulata (Guppy)): > 1,000 mg/L (96 h)
Method: OECD 203

1-methoxy-2-propanol

LC50: (Leuciscus idus (golden orfe)): = 6,812 mg/L (96 h)

12.2 Persistence and degradability

(2-methoxymethylethoxy)propanol

Biodegradation = 75 % (10 d)

1-methoxy-2-propanol

Biodegradation = 96 % (28 d)

12.3 Bioaccumulative potential

(2-methoxymethylethoxy)propanol

Bioconcentration factor (BCF) = 100

Partition coefficient: n-octanol/water = 0.006

1-methoxy-2-propanol

Partition coefficient: n-octanol/water = 0.37

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6 Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7 Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product/Packaging disposal

Do not empty into drains; dispose of this material and its container in a safe way. Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

Waste codes/waste designations according to EWC/AVV

080111* - Waste paint and varnish containing organic solvents or other dangerous substances

* Hazardous waste according to Directive 2008/98/EC (waste framework directive).

Other disposal recommendations

Non-contaminated packages may be recycled. Vessels not properly emptied are special waste.

SECTION 14: Transport information

14.1 UN number or ID number

UN 1263

14.2 UN proper shipping name

Land transport (ADR/RID)

Paint

Sea transport (IMDG)

Paint

Air transport (ICAO-TI / IATA-DGR)

Paint

14.3 Transport hazard class(es)

Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH)
according to Regulation (EU) 2020/878

205X00
Version 1.0

Graining Pen
Revision date 16 Oct 2025



Land transport (ADR/RID)	3
Sea transport (IMDG)	3
Air transport (ICAO-TI / IATA-DGR)	3

14.4 Packing group

Land transport (ADR/RID)	II
Sea transport (IMDG)	II
Air transport (ICAO-TI / IATA-DGR)	II

14.5 Environmental hazards

Land transport (ADR/RID)	not applicable
Sea transport (IMDG)	not applicable

14.6 Special precautions for user

Transport always in closed, upright and safe containers. Make sure that persons transporting the product know what to do in case of an accident or leakage.
Advices on safe handling: see parts 6 - 8

14.7 Maritime transport in bulk according to IMO instruments

No transport as bulk according to IBC Code.

14.8 Additional information

Land transport (ADR/RID)

Tunnel restriction code: D/E
Limited quantity (LQ): 5 ltr
Hazard identification number (Kemler No.): 33

Sea transport (IMDG)

EmS-No.: F-E, S-E
Limited quantity (LQ): 5 ltr

Air transport (ICAO-TI / IATA-DGR)

Limited quantity (LQ): 1 Liter

SECTION 15: Regulatory information

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

EU legislation

Authorisations and/or restrictions on use

Regulation (EC) No. 1907/2006 (REACH), Annex XVII (restrictions)

Use restriction according to REACH annex XVII, no.: 03, 40

Restrictions of occupation

Observe employment restrictions under the Maternity Protection Directive 92/85/EEC or stricter national regulations, if applicable.
Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC) or stricter national regulations, if applicable.

Directive 2010/75/EU on industrial emissions [Industrial Emissions Directive]

VOC value: 830 g/l

Regulation (EU) No. 528/2012 on biocides

biocide, active substance: 3-methyl-1-phenyl-5-pyrazolone
biocide, active substance: Ethanol

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive]

Hazard categories / Named dangerous substances

P5c FLAMMABLE LIQUIDS

Quantity 1: 5,000t; Quantity 2: 50,000t

National regulations

Observe in addition any national regulations!

Water hazard class

15.2 Chemical Safety Assessment

For the following substances of this mixture a chemical safety assessment has been carried out:

REACH No.	Substance name	CAS No. EC No.

Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH)
according to Regulation (EU) 2020/878



205X00
Version 1.0

Graining Pen
Revision date 16 Oct 2025

Print date 16 Oct 2025

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01-2119457435-35-xxxx	1-methoxy-2-propanol	107-98-2 203-539-1
01-2120766190-58-xxxx	C.I. Solvent Yellow 88	85408-46-4 287-007-4

SECTION 16: Other information

List of relevant hazard statements and/or precautionary statements from sections 2 to 15

H226	Flammable liquid and vapour.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

Flam. Liq. 2	On basis of test data.
Skin Sens. 1	Calculation method.
STOT SE 3 Narcotic effects	Calculation method.

Key literature references and sources for data

Data arise from reference works and literature.

Abbreviations and acronyms

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
OEL: Occupational Exposure Limit Value

BLV: Biological limit values

CAS: Chemical Abstracts Service

CLP: Classification, Labelling and Packaging

CMR: Carcinogenic, Mutagenic and Reprotoxic

DIN: German Institute for Standardization / German industrial standard

DNEL: Derived No-Effect Level

EAKV: European Waste Catalogue Directive

EC: Effective Concentration

EC: European Community

EN: European Standard

EU/EEA: European Economic Area

IATA-DGR: International Air Transport Association – Dangerous Goods Regulations

IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk

ICAO-TI: International Civil Aviation Organization Technical Instructions for the Safe Transport of Dangerous Goods by Air

IMDG Code: International Maritime Code for Dangerous Goods

ISO: International Organization for Standardization

LC: Lethal Concentration

LD: Lethal Dose

:

MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships

OECD: Organisation for Economic Cooperation and Development

PBT: persistent, bioaccumulative, toxic

PNEC: Predicted No Effect Concentration

RID: Regulations concerning the International Carriage of Dangerous Goods by Rail

REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals

UN: United Nations

VOC: Volatile Organic Compounds

vPvB: very persistent and very bioaccumulative

Indication of changes

* Data changed compared with the previous version.