

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 02.10.2023

Version number 3 (replaces version 2)

Revision: 02.10.2023

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

- **1.1 Product identifier**
- **Trade name:** Unocol 110 LV
- **Article number:** 103786
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Sector of Use**
SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites
- **Product category** PC1 Adhesives, sealants
- **Application of the substance / the mixture** Adhesives
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
APM Technica AG
Max-Schmidheiny-Str.201
CH-9435 HEERBRUGG
SCHWEIZ
- **Further information obtainable from:**
Tel. +41 71 788 31 00 (At office times only)
E-Mail: msds@apm-technica.com
- **1.4 Emergency telephone number:**
Tox Info Suisse
Freiestrasse 16
CH-8032 Zürich
Swiss Emergency phone number: 145 (24h). From outside of Switzerland: +41 44 251 51 51

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS08 health hazard

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.



GHS05 corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Skin Sens. 1 H317 May cause an allergic skin reaction.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.

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· Hazard pictograms

GHS05 GHS07 GHS08

· Signal word Danger**· Hazard-determining components of labelling:**

4-(1-oxo-2-propenyl)-morpholine

2-ethyl-2-[(3-mercapto-1-oxopropoxy)methyl]propane-1,3-diylbis[3-mercaptopropionate]

· Hazard statements

H302 Harmful if swallowed.

H318 Causes serious eye damage.

H317 May cause an allergic skin reaction.

H373 May cause damage to organs through prolonged or repeated exposure.

H412 Harmful to aquatic life with long lasting effects.

· Precautionary statements

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

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

P310 Immediately call a POISON CENTER/doctor.

P330 Rinse mouth.

P362+P364 Take off contaminated clothing and wash it before reuse.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· Labelling of packages where the contents do not exceed 125 ml**· Hazard pictograms**

GHS05 GHS07 GHS08

· Signal word Danger**· Hazard-determining components of labelling:**

4-(1-oxo-2-propenyl)-morpholine

2-ethyl-2-[(3-mercapto-1-oxopropoxy)methyl]propane-1,3-diylbis[3-mercaptopropionate]

· Hazard statements

H318 Causes serious eye damage.

H317 May cause an allergic skin reaction.

H412 Harmful to aquatic life with long lasting effects.

· Precautionary statements

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

P310 Immediately call a POISON CENTER/doctor.

P362+P364 Take off contaminated clothing and wash it before reuse.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· 2.3 Other hazards**· Results of PBT and vPvB assessment****· PBT:** Not applicable.**· vPvB:** Not applicable.

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SECTION 3: Composition/information on ingredients

3.2 Mixtures

Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components:

CAS: 5117-12-4 ELINCS: 418-140-1	4-(1-oxo-2-propenyl)-morpholine ⚠ STOT RE 2, H373; ⚠ Eye Dam. 1, H318; ⚠ Acute Tox. 4, H302; Skin Sens. 1, H317	>50–≤100%
CAS: 102-71-6 EINECS: 203-049-8	Triethanolamine substance with a Community workplace exposure limit	>25–≤50%
CAS: 33007-83-9	2-ethyl-2-[(3-mercapto-1-oxopropoxy)methyl]propane-1,3-diylbis[3-mercaptopropionate] ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H302; Skin Sens. 1A, H317	≥1–<2.5%
CAS: 110-82-7 EINECS: 203-806-2	cyclohexane ⚠ Flam. Liq. 2, H225; ⚠ Asp. Tox. 1, H304; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Skin Irrit. 2, H315; STOT SE 3, H336	≥0.025–<0.25%

Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information:

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

After inhalation:

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

After skin contact:

If skin irritation continues, consult a doctor.

Immediately wash with water and soap and rinse thoroughly.

After eye contact:

Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing: Call for a doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.

5.2 Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.

During heating or in case of fire poisonous gases are produced.

5.3 Advice for firefighters

Protective equipment:

Wear self-contained respiratory protective device.

Mouth respiratory protective device.

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SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Mount respiratory protective device.

Wear protective equipment. Keep unprotected persons away.

· 6.2 Environmental precautions:

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

· 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Use neutralising agent.

Dispose contaminated material as waste according to section 13.

Ensure adequate ventilation.

· 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

Keep away from heat and direct sunlight.

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

· Information about fire - and explosion protection: Keep respiratory protective device available.

· 7.2 Conditions for safe storage, including any incompatibilities

· Storage:

· Requirements to be met by storerooms and receptacles: No special requirements.

· Information about storage in one common storage facility: Not required.

· Further information about storage conditions: Keep container tightly sealed.

· 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

· 8.1 Control parameters

· Ingredients with limit values that require monitoring at the workplace:

102-71-6 Triethanolamine

OEL Long-term value: 5 mg/m³

110-82-7 cyclohexane

OEL Long-term value: 700 mg/m³, 200 ppm
IOELV

· Additional information: The lists valid during the making were used as basis.

· 8.2 Exposure controls

· Appropriate engineering controls No further data; see section 7.

· Individual protection measures, such as personal protective equipment

· General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

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- **Respiratory protection:**

Not necessary if room is well-ventilated.

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

- **Hand protection**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye/face protection**



Tightly sealed goggles

- **Body protection:** Protective work clothing

SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**

- **General Information**

- **Physical state**

Fluid

- **Colour:**

Beige

- **Odour:**

Characteristic

- **Odour threshold:**

Not determined.

- **Melting point/freezing point:**

Undetermined.

- **Boiling point or initial boiling point and boiling range**

286 °C (102-71-6 Triethanolamine)

- **Flammability**

Not applicable.

- **Lower and upper explosion limit**

- **Lower:**

Not determined.

- **Upper:**

Not determined.

- **Flash point:**

179 °C

- **Decomposition temperature:**

Not determined.

- **pH**

Not determined.

- **Viscosity:**

- **Kinematic viscosity**

Not determined.

- **Dynamic at 20 °C:**

50,000–60,000 mPas

- **Solubility**

- **water:**

Not miscible or difficult to mix.

- **Partition coefficient n-octanol/water (log value)**

Not determined.

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· Vapour pressure at 20 °C:	0 hPa
· Density and/or relative density	
· Density at 20 °C:	1.095 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· 9.2 Other information	
· Appearance:	
· Form:	Fluid
· Important information on protection of health and environment, and on safety.	
· Ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product does not present an explosion hazard.
· Solvent content:	
· Organic solvents:	≥28.9—<29 %
· VOC (EC)	≥28.88—<28.97 %
· Change in condition	
· Evaporation rate	Not determined.
· Information with regard to physical hazard classes	
· Explosives	Void
· Flammable gases	Void
· Aerosols	Void
· Oxidising gases	Void
· Gases under pressure	Void
· Flammable liquids	Void
· Flammable solids	Void
· Self-reactive substances and mixtures	Void
· Pyrophoric liquids	Void
· Pyrophoric solids	Void
· Self-heating substances and mixtures	Void
· Substances and mixtures, which emit flammable gases in contact with water	Void
· Oxidising liquids	Void
· Oxidising solids	Void
· Organic peroxides	Void
· Corrosive to metals	Void
· Desensitised explosives	Void

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** Keep away from UV and sunlight.
- **10.3 Possibility of hazardous reactions** Danger of polymerisation.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Harmful if swallowed.

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· LD/LC50 values relevant for classification:		
· ATE (Acute Toxicity Estimates)		
Oral	LD50	723 mg/kg
· 102-71-6 Triethanolamine		
Oral	LD50	8,000 mg/kg (rat)
· 110-82-7 cyclohexane		
Oral	LD50	12,705 mg/kg (rat)
· Skin corrosion/irritation Based on available data, the classification criteria are not met.		
· Serious eye damage/irritation Causes serious eye damage.		
· Respiratory or skin sensitisation May cause an allergic skin reaction.		
· Germ cell mutagenicity Based on available data, the classification criteria are not met.		
· Carcinogenicity Based on available data, the classification criteria are not met.		
· Reproductive toxicity Based on available data, the classification criteria are not met.		
· STOT-single exposure Based on available data, the classification criteria are not met.		
· STOT-repeated exposure May cause damage to organs through prolonged or repeated exposure.		
· Aspiration hazard Based on available data, the classification criteria are not met.		
· 11.2 Information on other hazards		
· Endocrine disrupting properties		
None of the ingredients is listed.		

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties**
The product does not contain substances with endocrine disrupting properties.
- **12.7 Other adverse effects**
- **Remark:** Harmful to fish
- **Additional ecological information:**
- **General notes:**
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Must not reach sewage water or drainage ditch undiluted or unneutralised.
Danger to drinking water if even small quantities leak into the ground.
Harmful to aquatic organisms

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· European waste catalogue	
08 04 09*	waste adhesives and sealants containing organic solvents or other hazardous substances
HP4	Irritant - skin irritation and eye damage

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HP5	Specific Target Organ Toxicity (STOT)/Aspiration Toxicity
HP6	Acute Toxicity
HP13	Sensitising
HP14	Ecotoxic

- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

- **14.1 UN number or ID number**
- **ADR, IMDG, IATA** not regulated
- **14.2 UN proper shipping name**
- **ADR, IMDG, IATA** not regulated
- **14.3 Transport hazard class(es)**
- **ADR, ADN, IMDG, IATA**
- **Class** not regulated
- **14.4 Packing group**
- **ADR, IMDG, IATA** not regulated
- **14.5 Environmental hazards:** Not applicable.
- **14.6 Special precautions for user** Not applicable.
- **14.7 Maritime transport in bulk according to IMO instruments** Not applicable.
- **UN "Model Regulation":** not regulated

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3, 57
- **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**
- None of the ingredients is listed.
- **REGULATION (EU) 2019/1148**
- **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**
- None of the ingredients is listed.
- **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**
- None of the ingredients is listed.
- **Regulation (EC) No 273/2004 on drug precursors**
- None of the ingredients is listed.
- **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**
- None of the ingredients is listed.

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- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. This Safety Data Sheet is in compliance with Regulation (EC) No 1907/2006, Article 31 as amended by Regulation (EU) 2020/878.

- **Relevant phrases**

H225 Highly flammable liquid and vapour.
 H302 Harmful if swallowed.
 H304 May be fatal if swallowed and enters airways.
 H315 Causes skin irritation.
 H317 May cause an allergic skin reaction.
 H318 Causes serious eye damage.
 H336 May cause drowsiness or dizziness.
 H373 May cause damage to organs through prolonged or repeated exposure.
 H400 Very toxic to aquatic life.
 H410 Very toxic to aquatic life with long lasting effects.

- **Classification according to Regulation (EC) No 1272/2008**

Acute toxicity - oral Serious eye damage/irritation Skin sensitisation Specific target organ toxicity (repeated exposure) Hazardous to the aquatic environment - long-term (chronic) aquatic hazard	The classification of the mixture is generally based on the calculation method using substance data according to Regulation (EC) No 1272/2008.
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- **Department issuing SDS:** Technology

- **Contact:** msds@apm-technica.com

- **Date of previous version:** 02.10.2023

- **Version number of previous version:** 2

- **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association
 GHS: Globally Harmonised System of Classification and Labelling of Chemicals
 EINECS: European Inventory of Existing Commercial Chemical Substances
 ELINCS: European List of Notified Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 VOC: Volatile Organic Compounds (USA, EU)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 PBT: Persistent, Bioaccumulative and Toxic
 vPvB: very Persistent and very Bioaccumulative
 Flam. Liq. 2: Flammable liquids – Category 2
 Acute Tox. 4: Acute toxicity – Category 4
 Skin Irrit. 2: Skin corrosion/irritation – Category 2
 Eye Dam. 1: Serious eye damage/eye irritation – Category 1
 Skin Sens. 1: Skin sensitisation – Category 1
 Skin Sens. 1A: Skin sensitisation – Category 1A
 STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
 STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
 Asp. Tox. 1: Aspiration hazard – Category 1
 Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
 Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1
 Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

- *** Data compared to the previous version altered.**