

Revision: 10.10.2023

Safety data sheet according to 1907/2006/EC, Article 31

Printing date 10.10.2023 Version number 3 (replaces version 2)

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

undertaking

· 1.1 Product identifier

· Trade name: <u>Unocol 382</u> · Article number: 102834

- 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



GHS05 corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS09 environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



Acute Tox. 4 H302 Harmful if swallowed.

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

- · 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 GHS09

· Signal word Danger

Hazard-determining components of labelling:

N,N-dimethylacrylamide

exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate [3-(2,3-epoxypropoxy)propyl]trimethoxysilane 2-hydroxyethyl acrylate

· Hazard statements

H302 Harmful if swallowed.

H318 Causes serious eve damage.

H317 May cause an allergic skin reaction.

H411 Toxic to aquatic life with long lasting effects.

· Precautionary statements

P261 Avoid breathing 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 GHS09

· Signal word Danger

· Hazard-determining components of labelling:

N,N-dimethylacrylamide

exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate [3-(2,3-epoxypropoxy)propyl]trimethoxysilane

2-hydroxyethyl acrylate

Hazard statements

H318 Causes serious eye damage.

H317 May cause an allergic skin reaction.

Precautionary statements

P261 Avoid breathing 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.

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 compor	nents:	
CAS: 5888-33-5 EINECS: 227-561-6	exo-1,7,7-trimethylbicyclo[2.2.1]hept-2-yl acrylate Skin Sens. 1A, H317	>10–≤50%
CAS: 2680-03-7 EINECS: 220-237-5	N,N-dimethylacrylamide ♦ Acute Tox. 3, H301; Acute Tox. 3, H311; ♦ Eye Dam. 1, H318	≥3–≤25%
CAS: 2530-83-8 EINECS: 219-784-2	[3-(2,3-epoxypropoxy)propyl]trimethoxysilane ♦ Eye Dam. 1, H318; Aquatic Chronic 3, H412	≥2.5–<3%
CAS: 24650-42-8 EINECS: 246-386-6	2,2-dimethoxy-1,2-diphenylethan-1-one Aquatic Acute 1, H400; Aquatic Chronic 1, H410	≥2.5–≤10%
CAS: 508-32-7	1,7,7-trimethyltricyclo[2.2.1.02,6]heptane Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Eye Irrit. 2, H319	≥0.25–<2.5%
CAS: 75980-60-8 EINECS: 278-355-8	diphenyl(2,4,6- trimethylbenzoyl)phosphine oxide Repr. 2, H361f	≥0–≤2.5%
CAS: 79-10-7 EINECS: 201-177-9	acrylic acid ♦ Flam. Liq. 3, H226; ♦ Skin Corr. 1A, H314; ♦ Aquatic Acute 1, H400; ↑ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332 Specific concentration limit: STOT SE 3; H335: C ≥ 1 %	≥0–<0.25%
CAS: 79-92-5 EINECS: 201-234-8	camphene ♠ Flam. Sol. 2, H228; ♦ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ♠ Eye Irrit. 2, H319	≥0.025–<0.25%
CAS: 818-61-1 EINECS: 212-454-9	2-hydroxyethyl acrylate Acute Tox. 3, H311; Skin Corr. 1B, H314; Aquatic Acute 1, H400; Skin Sens. 1, H317 Specific concentration limit: Skin Sens. 1; H317: C ≥ 0.2 %	≥0.1–<0.2%

·SVHC

75980-60-8 diphenyl(2,4,6- trimethylbenzoyl)phosphine oxide

· 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: 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.

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· 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:

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· 5.2 Special hazards arising from the substance or mixture

No further relevant information available.

- 5.3 Advice for firefighters
- · Protective equipment: Wear self-contained respiratory protective device.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

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

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

- $\cdot \ \textbf{Information about fire and explosion protection:} \ \ \textbf{No special measures required}.$
- · 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:

79-10-7 acrylic acid

OEL Short-term value: 59* mg/m³, 20* ppm Long-term value: 29 mg/m³, 10 ppm

IOELV, *1-minute reference period

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

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- · 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.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

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: Clear

Odour: Characteristic
 Odour threshold: Not determined.
 Melting point/freezing point: Undetermined.

· Boiling point or initial boiling point and

boiling range >93 °C

· Flammability Not applicable.

· Lower and upper explosion limit

· Lower: Not determined. · Upper: Not determined.

· Flash point: 77.8 °C

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• Decomposition temperature: Not determined. • pH Not determined.

Vicesity:

· Viscosity:

Kinematic viscosityDynamic:Not determined.Not determined.

· Solubility

· water:

Not miscible or difficult to mix.

Not determined.

Partition coefficient n-octanol/water (log

value)

Vapour pressure at 20 °C: 6.7 hPa

· Density and/or relative density

Density at 20 °C:
 Relative density
 Vapour density
 Not determined.
 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:

· VOC (EC) 3.00 % · Solids content: 0.0 %

· 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

Substances and mixtures, which emit flammable gases in contact with water
 Oxidising liquids
 Oxidising solids
 Organic peroxides
 Corrosive to metals
 Desensitised explosives

SECTION 10: Stability and reactivity

- · 10.1 Reactivity No further relevant information available.
- 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

- · 10.3 Possibility of hazardous reactions No dangerous reactions known.
- · 10.4 Conditions to avoid No further relevant information available.

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- 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.

· LD/LC50	values re	levant for c	lassification:
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Oral LD50 714–1,000 mg/kg

Dermal LD50 2,143-3,000 mg/kg

79-10-7 acrylic acid

Oral	LD50	250 mg/kg (rat)
Dermal	LD50	280 mg/kg (rabbit)

79-92-5 camphene

Oral	LD50	5,000 mg/kg (rat)
Dermal	LD50	2,500 mg/kg (rab)

- · 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 Based on available data, the classification criteria are not met.
- · 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: Toxic for 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.

Also poisonous for fish and plankton in water bodies.

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Toxic for aquatic organisms

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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
HP6	Acute Toxicity
HP13	Sensitising
HP14	Ecotoxic

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

SECTION 14: Transport information	ation
· 14.1 UN number or ID number · ADR, IMDG, IATA	UN3082
· 14.2 UN proper shipping name · ADR	3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (exo-1,7,7- trimethylbicyclo[2.2.1]hept-2-yl acrylate, ACRYLIO ACID, STABILIZED)
·IMDG	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (exo-1,7,7- trimethylbicyclo[2.2.1]hept-2-yl acrylate, ACRYLIC ACID, STABILIZED), MARINE POLLUTANT ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (exo-1,7,7-
· 14.3 Transport hazard class(es) · ADR, IMDG, IATA	trimethylbicyclo[2.2.1]hept-2-yl acrylate, ACRYLICACID, STABILIZED)
ADA, IMBO, IATA	
Class	9 Miscellaneous dangerous substances and articles.9
· 14.4 Packing group · ADR, IMDG, IATA	III
· 14.5 Environmental hazards:	Product contains environmentally hazardous substances: 2-hydroxyethyl acrylate
· Marine pollutant: · Special marking (ADR):	Symbol (fish and tree) Symbol (fish and tree)

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Special marking (IATA):	Symbol (fish and tree)
14.6 Special precautions for user	Warning: Miscellaneous dangerous substances and articles.
Hazard identification number (Kemler code): EMS Number:	90 F-A,S-F
Segregation groups	(SGG1) Acids
Stowage Category	A
14.7 Maritime transport in bulk according to	
IMO instruments	Not applicable.
Transport/Additional information:	
ADR Limited quantities (LQ)	5L
Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 m Maximum net quantity per outer packaging: 1000 ml
Transport category	3
Tunnel restriction code	(-)
IMDG	
Limited quantities (LQ)	5L
Excepted quantities (EQ)	Code: E1
	Maximum net quantity per inner packaging: 30 m Maximum net quantity per outer packaging: 1000 ml
UN "Model Regulation":	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EXO-1,7,7- TRIMETHYLBICYCLO[2.2.1]HEPT-2-YL
	ACRYLATE, ACRYLIC ACID, STABILIZED), 9, 11

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.
- · Seveso category E2 Hazardous to the Aquatic Environment
- Qualifying quantity (tonnes) for the application of lower-tier requirements 200 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t
- REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
- 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.

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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.

- · National regulations:
- · Other regulations, limitations and prohibitive regulations
- Substances of very high concern (SVHC) according to REACH, Article 57

75980-60-8 diphenyl(2,4,6- trimethylbenzoyl)phosphine oxide

· 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 Sheets is in compliance with Regulation (EC) No 1907/2006, Article 31 as amended by Regulation (EU) 2020/878.

Relevant phrases

H226 Flammable liquid and vapour.

H228 Flammable solid.

H301 Toxic if swallowed.

H302 Harmful if swallowed.

H311 Toxic in contact with skin.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H361f Suspected of damaging fertility.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.

Classification according to Regulation (EC) No 1272/2008

Acute toxicity - oral

Serious eye damage/irritation

Skin sensitisation

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.

· Department issuing SDS: Technology · Contact: msds@apm-technica.com Date of previous version: 10.10.2023 · 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 SVHC: Substances of Very High Concern

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vPvB: very Persistent and very Bioaccumulative Flam. Liq. 3: Flammable liquids – Category 3 Flam. Sol. 2: Flammable solids – Category 2 Acute Tox. 3: Acute toxicity – Category 3 Acute Tox. 4: Acute toxicity – Category 4

Skin Corr. 1A: Skin corrosion/irritation – Category 1A
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Skin Sens. 1: Skin sensitisation – Category 1 Skin Sens. 1A: Skin sensitisation – Category 1A Repr. 2: Reproductive toxicity – Category 2

Repr. 2: Reproductive toxicity – Category 2
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 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

* Data compared to the previous version altered.

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