

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

Printing date 22.03.2023

Version: 5.00 (replaces version 4.01)

Revision: 19.09.2022

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier****Trade name:** SONAX RADIATOR SEALANT**Article number:**

04421410, 04429000-050

UFI: K7HV-EU17-GXA7-6CRD**1.2 Relevant identified uses of the substance or mixture and uses advised against****Application of the substance / the mixture**

Radiator Sealant

Consumer uses: Private households / general public / consumers

Professional uses

Uses advised against There is currently no information available on this.**1.3 Details of the supplier of the safety data sheet****Manufacturer/Supplier:**

SONAX GmbH

Münchener Straße 75

D-86633 Neuburg (Donau)

Tel.: ++49 (0)8431/53-0

Further information obtainable from:

Product safety

E-mail: erp@sonax.de

Phone: + +49 (0) 8431 53 217

United Kingdom:

Anglo American Oil Company Ltd

58 Holton Road, Holton Heath Trading Park, Poole, Dorset, BH16 6LT

Telephone: (+44) 01929 551557

Email: info@aaoil.co.uk**1.4 Emergency telephone number:****European Union:** +49 (0) 89 19240 (Poison Centre Munich)**United Kingdom:** 0344 892 0111 (UK NPIS)

Members of Public in England, Scotland and Wales can contact NHS 111/NHS 24 by dialling 111

In Northern Ireland, contact your local GP

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008**

STOT RE 2 H373 May cause damage to the kidneys through prolonged or repeated exposure. Route of exposure: Oral.

2.2 Label elements**Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the GB CLP regulation.

Hazard pictograms

GHS08

Signal word Warning**Hazard-determining components of labelling:**

ethanediol

morpholine

Hazard statements

H373 May cause damage to the kidneys through prolonged or repeated exposure. Route of exposure: Oral.

Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P314 Get medical advice/attention if you feel unwell.

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

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2.3 Other hazards**Results of PBT and vPvB assessment****PBT:**

According to information provided in the supply chain, the mix contains less than 0.1% of any substances classified as PBT

vPvB:

According to information provided in the supply chain, the mix contains less than 0.1% of any substances classified as vPvB.

Determination of endocrine-disrupting properties

The substance/mixture does not contain components considered to have endocrine disrupting properties according to UK REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Description: Binding agent dispersion with organic pigments

Dangerous components:

CAS: 107-21-1 EINECS: 203-473-3 Reg.nr.: 01-2119456816-28-xxxx	ethanediol STOT RE 2, H373; Acute Tox. 4, H302	10-<20%
CAS: 110-91-8 EINECS: 203-815-1 Reg.nr.: 01-2119496057-30-xxxx	morpholine Flam. Liq. 3, H226; Acute Tox. 3, H311; Acute Tox. 3, H331; Skin Corr. 1B, H314; Acute Tox. 4, H302	0.1-<1%

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: Remove soiled clothing

After inhalation: Supply fresh air.

After skin contact: Wash the areas of skin affected with water and a mild detergent.

After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing:

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; call for medical help immediately.

4.2 Most important symptoms and effects, both acute and delayed

Headache

Nausea

Dizziness

Drowsiness

Reddening, drying and crack formation of the skin

4.3 Indication of any immediate medical attention and special treatment needed

Treatment in accordance with the doctor's assessment of the patient's condition. Symptomatic treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing agents:

Foam

Carbon dioxide

Fire-extinguishing powder

Water haze

For safety reasons unsuitable extinguishing agents: Water with full jet

5.2 Special hazards arising from the substance or mixture

In case of fire, the following can be released:

Carbon monoxide (CO)

Carbon dioxide (CO₂)

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5.3 Advice for firefighters

Protective equipment:

Do not inhale explosion gases or combustion gases.

Wear fully protective suit.

Do not enter the hazardous area without a self-contained breathing apparatus.

See Section 8 for information on personal protection equipment.

Additional information

Cool endangered receptacles with water spray.

Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures Ensure adequate ventilation

For non-emergency personnel

The usual precautionary measures are to be adhered to when handling chemicals.

For emergency responders Wear protective equipment. Keep unprotected persons away.

6.2 Environmental precautions:

Do not allow to penetrate the ground/soil.

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

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

6.3 Methods and material for containment and cleaning up:

Ensure adequate ventilation.

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

Dispose contaminated material as waste according to item 13.

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.

Information about fire - and explosion protection: Keep ignition sources away - Do not smoke.

7.2 Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles: Prevent any seepage into the ground.

Information about storage in one common storage facility:

Store away from foodstuffs.

Observe local/state/federal regulations.

Further information about storage conditions:

Keep container tightly sealed.

Protect from heat and direct sunlight.

Recommended storage temperature: 20 °C.

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:

CAS: 107-21-1 ethanediol

WEL (Great Britain)	Short-term value: 104** mg/m ³ , 40** ppm Long-term value: 10* 52** mg/m ³ , 20** ppm Sk *particulate **vapour
IOELV (EU)	Short-term value: 104 mg/m ³ , 40 ppm Long-term value: 52 mg/m ³ , 20 ppm Skin
OEL (Ireland)	Short-term value: 40 mg/m ³ , 104 ppm Long-term value: 52 mg/m ³ , 20 ppm Sk, IOELV

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CAS: 110-91-8 morpholine

WEL (Great Britain)	Short-term value: 72 mg/m ³ , 20 ppm Long-term value: 36 mg/m ³ , 10 ppm Sk
IOELV (EU)	Short-term value: 72 mg/m ³ , 20 ppm Long-term value: 36 mg/m ³ , 10 ppm
OEL (Ireland)	Short-term value: 72 mg/m ³ , 20 ppm Long-term value: 36 mg/m ³ , 10 ppm Sk, IOELV

Regulatory information

WEL (Great Britain): EH40/2020

IOELV (EU): (EU) 2019/1831

OEL (Ireland): 2021 CoP for the Safety, Health and Welfare at Work

DNELs

CAS: 107-21-1 ethanediol

Dermal	DNEL	53 mg/kg bw/day (consumer) (long term (chronic) / systemic) 106 mg/kg bw/day (worker) (long term (chronic) / systemic)
Inhalative	DNEL	7 mg/m ³ (consumer) (long term (chronic) / local) 35 mg/m ³ (worker) (long term (chronic) / local)

PNECs

CAS: 107-21-1 ethanediol

PNEC	199.5 mg/l (STP) 10 mg/l (water (intermittent release)) 10 mg/l (water (fresh water)) 1 mg/l (water (sea water))
PNEC	1.53 mg/kg (gro) 37 mg/kg (sediment (fresh water)) (dry weight) 3.7 mg/kg (sediment (sea water)) (dry weight)

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

8.2 Exposure controls

Suitable technical control devices

Ensure good ventilation. This can be achieved by localised extraction or general ventilation. If this is not sufficient to keep the concentration below the occupational exposure limit, suitable breathing protection is to be worn.

Individual protection measures, such as personal protective equipment

General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Respiratory protection:

If the occupational exposure limit is exceeded:

The following breathing protection is recommended:

Respiratory filter for organic gases and vapours (Type A)

Identification colour: Brown

[DIN EN 14387]

Hand protection Protective gloves

Material of gloves

Nitrile rubber, NBR

Recommended thickness of the material: ≥ 0.45 mm

[EN 374]

Eye/face protection

Goggles recommended during refilling

[EN 166]

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

Physical state	Fluid
Colour:	Green
Odour:	Citrus
Melting point/freezing point:	Undetermined.
Boiling point or initial boiling point and boiling range	100 - 198 °C
Flammability	Combustible liquid.
Lower and upper explosion limit	
Lower:	3.2 Vol %
Upper:	28 Vol %
Flash point:	> 111 °C (ISO 3679)
Decomposition temperature:	Not determined.
pH at 20 °C	8.5-10.5 (DIN 19268)
Viscosity:	
Kinematic viscosity at 40 °C	<20.5 mm²/s
Solubility	
water:	Easily soluble.
Partition coefficient n-octanol/water (log value)	Not determined.
Vapour pressure:	Not determined.
Density and/or relative density	
Density at 20 °C:	1.01-1.02 g/cm³ (DIN 51757)
Vapour density	Not determined.

9.2 Other information

Appearance:	
Form:	Fluid
Important information on protection of health and environment, and on safety.	
Auto-ignition temperature:	Product is not selfigniting.
Explosive properties:	Not determined.
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 dangerous reactions known.

10.2 Chemical stability Stable under normal conditions.

10.3 Possibility of hazardous reactions No dangerous reactions known.

10.4 Conditions to avoid

Keep ignition sources away - Do not smoke.

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See Section 7 for information on safe handling.

10.5 Incompatible materials: strong oxidizing agents**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 Based on available data, the classification criteria are not met.

LD/LC50 values relevant for classification:

CAS: 107-21-1 ethanediol

Oral	LD50	7,712 mg/kg (rat)
Dermal	LD50	>3,500 mg/kg (mouse)
Inhalative	LC50 / 6 h	>2.5 mg/l (rat)

CAS: 110-91-8 morpholine

Oral	LD50	1,900 mg/kg (rat)
Dermal	LD50	500 mg/kg (rabbit)
Inhalative	ATE	0.5 mg/l (aerosol)
	LC50 / 4h	8,000 ppm (rat) (gas)
	LC50 / 4h	8 mg/l (rat) (vapour)

Skin corrosion/irritation Based on available data, the classification criteria are not met.**Serious eye damage/irritation** Based on available data, the classification criteria are not met.**Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.**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 the kidneys through prolonged or repeated exposure. Route of exposure: Oral.

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

11.2 Information on other hazards

Endocrine disrupting properties

According to the current state of scientific knowledge, there is no data for the product regarding endocrine disrupting properties with health effects.

None of the ingredients is listed.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity:

CAS: 107-21-1 ethanediol

LC50 / 96h	72,860 mg/l (<i>Pimephales promelas</i>)
EC20 / 0.5 h	>1,995 mg/l (activated sludge)
EC50 / 48h	>100 mg/l (<i>Daphnia magna</i>)
EC50 / 96 h	6,500-13,000 mg/l (<i>Pseudokirchneriella subcapitata</i>)
NOEC / 7 d	8,590 mg/l (<i>Ceriodaphnia Dubia</i>) (EPA 600/4-89/001)
	15,380 mg/l (<i>Pimephales promelas</i>) (EPA 600/4-89/001)

CAS: 110-91-8 morpholine

LC50 / 96h	179 mg/l (<i>Oncorhynchus mykiss</i>)
EC50 / 48h	45 mg/l (<i>Daphnia magna</i>)
ErC 50 / 72h	58 mg/l (<i>Desmodesmus subspicatus</i>)
NOEC / 4 d	10 mg/l (<i>Desmodesmus subspicatus</i>)

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12.2 Persistence and degradability
CAS: 110-91-8 morpholine

Biodegradation 93 % (OECD 301E / 25d)

12.3 Bioaccumulative potential
CAS: 107-21-1 ethanediol

log POW 1.36

CAS: 110-91-8 morpholine

BCF <2.8

log POW ≤2.55

12.4 Mobility in soil No further relevant information available.

12.5 Results of PBT and vPvB assessment
PBT:

According to information provided in the supply chain, the mix contains less than 0.1% of any substances classified as PBT

vPvB:

According to information provided in the supply chain, the mix contains less than 0.1% of any substances classified as vPvB

12.6 Endocrine disrupting properties

According to the current state of scientific knowledge, there is no data for the product regarding endocrine disrupting properties with effects on the environment.

12.7 Other adverse effects
Additional ecological information:
General notes: The product may not be released into the environment without control.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste classified as hazardous according to Annex III to Directive 2008/98/EC.

Recommendation Waste must be disposed of while observing the local, official regulations.

European waste catalogue

1) Disposal / product

2) Disposal / contaminated packaging

07 06 01* aqueous washing liquids and mother liquors

15 01 02 plastic packaging

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

SECTION 14: Transport information

14.1 UN number or ID number

ADR/RID/ADN, IMDG, IATA Void

14.2 UN proper shipping name

ADR/RID/ADN, IMDG, IATA Void

14.3 Transport hazard class(es)

ADR/RID/ADN, ADN, IMDG, IATA
Class Void

14.4 Packing group

ADR/RID/ADN, IMDG, IATA Void

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.

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UN "Model Regulation":

Void

SECTION 15: Regulatory information

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

European Directives:

Directive 2010/75/EU (VOC) 21.00 %

Catégorie SEVESO (DIRECTIVE 2012/18/EU) not subject to

National regulations:

Information about limitation of use:

Employment restrictions concerning juveniles must be observed.

Employment restrictions concerning pregnant and lactating women must be observed.

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.

Relevant phrases

H226 Flammable liquid and vapour.

H302 Harmful if swallowed.

H311 Toxic in contact with skin.

H314 Causes severe skin burns and eye damage.

H331 Toxic if inhaled.

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

Classification according to Regulation (EC) No 1272/2008

Specific target organ toxicity (repeated exposure)

The classification of the mixture is generally based on the calculation method using substance data according to Regulation (EC) No 1272/2008.

Date of previous version: 22.04.2021

Version number of previous version: 4.01

Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

NOEL = No Observed Effect Level

NOEC = No Observed Effect Concentration

LC = Lethal Concentration

EC50 = half maximal effective concentration

log POW = Octanol / water partition coefficient

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

ATE: acute toxicity estimate

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

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)

DNEL: Derived No-Effect Level (UK REACH)

PNEC: Predicted No-Effect Concentration (UK REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

IOELV = indicative occupational exposure limit values

Flam. Liq. 3: Flammable liquids – Category 3

Acute Tox. 4: Acute toxicity – Category 4

Acute Tox. 3: Acute toxicity – Category 3

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

* Data compared to the previous version altered.

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