



Trade name: Vitralit ® 4282 mod./2

Version: 3 / GB

Date revised: 18.04.2017

Replaces Version: 2 / GB

Print date: 06.06.2017

P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
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 or doctor.

**Hazardous component(s) to be indicated on label (Regulation (EC) No. 1272/2008)**

contains Acrylic acid;2-Hydroxyethyl methacrylate;Maleic acid;Isobornyl acrylate

**2.3. Other hazards**

No special hazards have to be mentioned.

**SECTION 3: Composition/information on ingredients****Hazardous ingredients (Regulation (EC) No. 1272/2008)****Isobornyl acrylate**

CAS No.	5888-33-5
EINECS no.	227-561-6
Concentration	>= 25 < 50 %
Classification (Regulation (EC) No. 1272/2008)	
	Aquatic Chronic 2 H411
	Skin Irrit. 2 H315
	Eye Irrit. 2 H319
	STOT SE 3 H335

**2-Hydroxyethyl methacrylate**

CAS No.	868-77-9
EINECS no.	212-782-2
Registration no.	01-2119490169-29
Concentration	>= 10 < 25 %
Classification (Regulation (EC) No. 1272/2008)	
	Eye Irrit. 2 H319
	Skin Sens. 1 H317
	Skin Irrit. 2 H315

**Acrylic acid**

CAS No.	79-10-7
EINECS no.	201-177-9
Registration no.	01-2119452449-31
Concentration	>= 3 < 5 %
Classification (Regulation (EC) No. 1272/2008)	
	Aquatic Acute 1 H400
	Flam. Liq. 3 H226
	Acute Tox. 4 H332
	Acute Tox. 4 H312
	Acute Tox. 4 H302
	Skin Corr. 1A H314
	Eye Dam. 1 H318
	Aquatic Chronic 2 H411

Concentration limits (Regulation (EC) No. 1272/2008)

STOT SE 3 H335 &gt;= 1

Additional remarks:

CLP Regulation (EC) No 1272/2008, Annex VI, Note D

DSD Directive 67/548/EEC, Annex I, Note D

**2,2-Dimethoxy-1,2-diphenylethan-1-one**

CAS No. 24650-42-8

Trade name: Vitralit® 4282 mod./2

Version: 3 / GB

Date revised: 18.04.2017

Replaces Version: 2 / GB

Print date: 06.06.2017

EINECS no. 246-386-6  
 Registration no. 01-2120000336-73  
 Concentration  $\geq 2,5 < 10$  %  
 Classification (Regulation (EC) No. 1272/2008)  
 Acute Tox. 4 H302  
 STOT RE 2 H373  
 Aquatic Chronic 1 H410

**Maleic acid**

CAS No. 110-16-7  
 EINECS no. 203-742-5  
 Registration no. 01-2119488705-25  
 Concentration  $\geq 0,1 < 1$  %  
 Classification (Regulation (EC) No. 1272/2008)  
 Skin Sens. 1 H317  
 Eye Irrit. 2 H319  
 STOT SE 3 H335  
 Skin Irrit. 2 H315  
 Acute Tox. 4 H302

Concentration limits (Regulation (EC) No. 1272/2008)

Skin Sens. 1 H317  $\geq 0,1$ **Cumene Hydroperoxide**

CAS No. 80-15-9  
 EINECS no. 201-254-7  
 Concentration  $\geq 0,1 < 1$  %  
 Classification (Regulation (EC) No. 1272/2008)  
 STOT RE 2 H373  
 Skin Corr. 1B H314  
 Acute Tox. 4 H302  
 Acute Tox. 4 H312  
 Acute Tox. 3 H331  
 Org. Perox. E H242  
 Aquatic Chronic 2 H411

Concentration limits (Regulation (EC) No. 1272/2008)

Eye Dam. 1 H318  $\geq 3 < 10$ STOT SE 3 H335  $\geq 1 < 10$ Skin Corr. 1B H314  $\geq 10$ Eye Irrit. 2 H319  $\geq 1 < 3$ Skin Irrit. 2 H315  $\geq 3 < 10$ **SECTION 4: First aid measures****4.1. Description of first aid measures****General information**

Remove contaminated, soaked clothing immediately and dispose of safely. Adhere to personal protective measures when giving first aid. In any case show the physician the Safety Data Sheet.

**After inhalation**

Ensure supply of fresh air. When vapours are intensively inhaled, seek medical help immediately.

**After skin contact**

Wash off immediately with soap and water. Consult a doctor if skin irritation persists.

**After eye contact**

Separate eyelids, wash the eyes thoroughly with water (15 min.). Summon a doctor immediately.

**After ingestion**

If swallowed, seek medical advice immediately and show this container or label. Rinse mouth thoroughly with water. Let plenty of water be drunk in small gulps. Do not induce vomiting.

**Adhere to personal protective measures when giving first aid**

First aider: Pay attention to self-protection!

**4.2. Most important symptoms and effects, both acute and delayed**

Until now no symptoms known so far.

**4.3. Indication of any immediate medical attention and special treatment needed****Hints for the physician / hazards**

In the case of swallowing with subsequent vomiting, aspiration of the lungs can occur which can lead to chemical pneumonia or asphyxiation.

**SECTION 5: Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media**

Dry powder, Carbon dioxide, Foam

**Non suitable extinguishing media**

Full water jet

**5.2. Special hazards arising from the substance or mixture**

In case of combustion evolution of dangerous gases possible.

**5.3. Advice for firefighters****Special protective equipment for fire-fighting**

Do not inhale explosion and/or combustion gases. In case of combustion use a suitable breathing apparatus.

**Other information**

Collect contaminated fire-fighting water separately, must not be discharged into the drains. Fire residues and contaminated fire-fighting water must be disposed of in accordance with the local regulations.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Avoid contact with skin, eyes and clothing. Refer to protective measures listed in Sections 7 and 8.

**6.2. Environmental precautions**

Prevent spread over a wide area (e.g. by containment or oil barriers). Do not discharge into the drains/surface waters/groundwater. In case the product spills into sewage waters, immediately inform the authorities.

**6.3. Methods and material for containment and cleaning up**

Pick up with absorbent material. Dispose of absorbed material in accordance with the regulations.

**6.4. Reference to other sections**

Refer to protective measures listed in Sections 7 and 8.

**SECTION 7: Handling and storage****7.1. Precautions for safe handling****Advice on safe handling**

Avoid formation of aerosols. Provide good ventilation of working area (local exhaust ventilation if necessary). Keep container tightly closed. Observe the usual precautions for handling chemicals.

**7.2. Conditions for safe storage, including any incompatibilities**

Trade name: Vitralit® 4282 mod./2

Version: 3 / GB

Date revised: 18.04.2017

Replaces Version: 2 / GB

Print date: 06.06.2017

**Requirements for storage rooms and vessels**

Keep in original packaging, tightly closed. Storage rooms must be properly ventilated. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Provide solvent-resistant and impermeable floor.

**Storage class according to TRGS 510**

Storage class according to 10 Flammable liquids  
TRGS 510

**Further information on storage conditions**

Keep container tightly closed and dry in a cool, well-ventilated place. Protect from heat and direct sunlight.

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****Exposure limit values****Isopropylbenzene**

Value	100	mg/m <sup>3</sup>	20	ppm(V)
Short term exposure limit	250	mg/m <sup>3</sup>	50	ppm(V)

**Isopropylbenzene**

Value	125	mg/m <sup>3</sup>	25	ppm(V)
Short term exposure limit	375	mg/m <sup>3</sup>	75	ppm(V)

**Other information**

There are not known any further control parameters.

**8.2. Exposure controls****General protective and hygiene measures**

Hold eye wash fountain available. Do not inhale gases/vapours/aerosols. Avoid contact with skin and eyes. Do not eat, drink or smoke during work time. Wash hands before breaks and after work. Clean skin thoroughly after work; apply skin cream.

**Respiratory protection**

If workplace limits are exceeded, a respiratory protection approved for this particular job must be worn.  
Short term: filter apparatus, Filter A

**Hand protection**

Chemical resistant gloves	
Use	Short-term hand contact
Appropriate Material	nitrile
Material thickness	>= 0,4 mm
Breakthrough time	> 480 min

**Eye protection**

Safety glasses with side protection shield

**Body protection**

Clothing as usual in the chemical industry.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

<b>Form</b>	liquid
<b>Colour</b>	light green
<b>Odour</b>	characteristic
<b>Odour threshold</b>	
Remarks	not determined

Trade name: Vitralit ® 4282 mod./2

Version: 3 / GB

Date revised: 18.04.2017

Replaces Version: 2 / GB

Print date: 06.06.2017

**pH value**

Remarks not determined

**Melting point**

Remarks not determined

**Freezing point**

Remarks not determined

**Initial boiling point and boiling range**

Remarks not determined

**Flash point**

Value &gt; 100 °C

**Evaporation rate (ether = 1) :**

Remarks not determined

**Flammability (solid, gas)**

not determined

**Upper/lower flammability or explosive limits**

Remarks not determined

**Vapour pressure**

Remarks not determined

**Vapour density**

Remarks not determined

**Density**Value 1,1 g/cm<sup>3</sup>

Temperature 25 °C

**Solubility in water**

Remarks not determined

**Solubility(ies)**

Remarks not determined

**Partition coefficient: n-octanol/water**

Remarks not determined

**Ignition temperature**

Remarks not determined

**Decomposition temperature**

Remarks not determined

**Viscosity****dynamic**

Value 600 mPa.s

Temperature 25 °C

**Explosive properties**

evaluation not determined

**Oxidising properties**

Remarks not determined

**9.2. Other information****Other information**

None known

**SECTION 10: Stability and reactivity**

Trade name: Vitralit ® 4282 mod./2

Version: 3 / GB

Date revised: 18.04.2017

Replaces Version: 2 / GB

Print date: 06.06.2017

**10.1. Reactivity**

No hazardous reactions when stored and handled according to prescribed instructions.

**10.2. Chemical stability**

No hazardous reactions known.

**10.3. Possibility of hazardous reactions**

No hazardous reactions known.

**10.4. Conditions to avoid**

No hazardous reactions known.

**Decomposition temperature**

Remarks not determined

**10.5. Incompatible materials**

None known

**10.6. Hazardous decomposition products**

Irritant gases/vapours

**SECTION 11: Toxicological information****11.1. Information on toxicological effects****Acute oral toxicity**

ATE	>	10.000	mg/kg
Method	calculated value according to GHS (e.g see UN GHS)		

**Acute oral toxicity (Components)****2,2-Dimethoxy-1,2-diphenylethan-1-one**

Species	rat		
LD50	>	1694	mg/kg

**Acrylic acid**

Species	rat		
LD50	=	1500	mg/kg

**Acute dermal toxicity**

ATE	>	10.000	mg/kg
Method	calculated value according to GHS (e.g see UN GHS)		

**Acute dermal toxicity (Components)****2,2-Dimethoxy-1,2-diphenylethan-1-one**

Species	rat		
LD50	>	5000	mg/kg

**Acrylic acid**

Species	rabbit		
LD50	>=	2000	mg/kg

**Acute inhalational toxicity**

ATE		82,8923	mg/l
Administration/Form	Vapors		
Method	calculated value according to GHS (e.g see UN GHS)		

ATE	>	20	mg/l
Administration/Form	Dust/Mist		
Method	calculated value according to GHS (e.g see UN GHS)		

**Acute inhalative toxicity (Components)****Acrylic acid**

Species	rat		
LC50	>=	5,1	mg/l

Trade name: Vitralit ® 4282 mod./2

Version: 3 / GB

Date revised: 18.04.2017

Replaces Version: 2 / GB

Print date: 06.06.2017

Duration of exposure 4 h  
Administration/Form Vapors

**Skin corrosion/irritation**

Remarks not determined

**Serious eye damage/irritation**

Remarks not determined

**Sensitization**

Remarks not determined

**Sensitization (Components)****Acrylic acid**

evaluation non-sensitizing

**Subacute, subchronic, chronic toxicity**

Remarks not determined

**Mutagenicity**

Remarks not determined

**Reproductive toxicity**

Remarks not determined

**Carcinogenicity**

Remarks not determined

**Specific Target Organ Toxicity (STOT)**

Remarks not determined

**Experience in practice**

Inhalation may lead to irritation of the respiratory tract.

**Other information**

No toxicological data are available.

**SECTION 12: Ecological information****12.1. Toxicity****General information**

not determined

**Fish toxicity (Components)****2,2-Dimethoxy-1,2-diphenylethan-1-one**

Species Bluegill (*Lepomis macrochirus*)  
LC50 6 mg/l  
Duration of exposure 96 h

**Acrylic acid**

Species rainbow trout (*Oncorhynchus mykiss*)  
LC50 = 27 mg/l  
Duration of exposure 96 h

**Daphnia toxicity (Components)****2,2-Dimethoxy-1,2-diphenylethan-1-one**

Species *Daphnia magna*  
EC50 26 mg/l  
Duration of exposure 24 h

**Acrylic acid**

Species *Daphnia magna*  
EC50 = 47 to 95 mg/l  
Duration of exposure 48 h



Trade name: Vitralit ® 4282 mod./2

Version: 3 / GB

Date revised: 18.04.2017

Replaces Version: 2 / GB

Print date: 06.06.2017

**Algae toxicity (Components)****2,2-Dimethoxy-1,2-diphenylethan-1-one**

Species	Scenedesmus subspicatus	
EC50	0,17	mg/l
Duration of exposure	72	h

**Acrylic acid**

Species	Scenedesmus subspicatus	
ErC50	= 0,13	mg/l
Duration of exposure	72	h

**Bacteria toxicity (Components)****2,2-Dimethoxy-1,2-diphenylethan-1-one**

Species	activated sludge	
EC50	> 100	mg/l
Duration of exposure	3	h

**12.2. Persistence and degradability****General information**

not determined

**Chemical oxygen demand (COD) (Components)****Acrylic acid**

Value	= 1,48	kg/kg
-------	--------	-------

**Biochemical oxygen demand (BOD5) (Components)****Acrylic acid**

Value	= 0,31	kg/kg
-------	--------	-------

**12.3. Bioaccumulative potential****General information**

not determined

**Partition coefficient: n-octanol/water**

Remarks not determined

**12.4. Mobility in soil****General information**

not determined

**12.5. Results of PBT and vPvB assessment****General information**

not determined

**12.6. Other adverse effects****General information**

not determined

**General information / ecology**

Do not allow to enter soil, waterways or waste water canal. Avoid release into the atmosphere.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Disposal recommendations for the product**

EWC waste code 08 04 09\* waste adhesives and sealants containing organic solvents or other dangerous substances

Dispose of waste according to applicable legislation.

Trade name: Vitralit ® 4282 mod./2

Version: 3 / GB

Date revised: 18.04.2017

Replaces Version: 2 / GB

Print date: 06.06.2017

**Disposal recommendations for packaging**

EWC waste code 15 01 10\* packaging containing residues of or contaminated by dangerous substances

Packaging that cannot be cleaned should be disposed off in agreement with the regional waste disposal company.

**SECTION 14: Transport information**

**Land transport ADR/RID**

**14.1. UN number**

UN 3082

**14.2. UN proper shipping name**

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Acrylic acid)

**14.3. Transport hazard class(es)**

Class 9

Label



**14.4. Packing group**

Packing group III

Remarks

The product is not subject to any other provisions of ADR provided packaging of not more than 5 l / 5 kg (SP 375)

Limited Quantity 5 l

Transport category 3

Tunnel restriction code E

**Marine transport IMDG/GGVSee**

**14.1. UN number**

UN 3082

**14.2. UN proper shipping name**

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Acrylic acid)

**14.3. Transport hazard class(es)**

Class 9

Label



**14.4. Packing group**

Packing group III

Remarks

The product can be transported in accordance with IMDG Code paragraph 2.10.2.7, provided packaging not more than 5 l / 5 kg. F-A, S-F

EmS

**Air transport ICAO/IATA**

**14.1. UN number**

UN 3082

**14.2. UN proper shipping name**

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Acrylic acid)

**14.3. Transport hazard class(es)**

Class 9

Label



Trade name: Vitralit ® 4282 mod./2

Version: 3 / GB

Date revised: 18.04.2017

Replaces Version: 2 / GB

Print date: 06.06.2017

**14.4. Packing group**Packing group  
Remarks

III

The product is not subject to any other provisions of IATA provided packaging of not more than 5 l / 5 kg (A197)

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****VOC**

VOC (EU) 0 % 0 g/l

**15.2. Chemical safety assessment**

For this preparation a chemical safety assessment has not been carried out.

**SECTION 16: Other information****Hazard statements listed in Chapter 3**

H226	Flammable liquid and vapour.
H242	Heating may cause a fire.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
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.
H411	Toxic to aquatic life with long lasting effects.

**CLP categories listed in Chapter 3**

Acute Tox. 3	Acute toxicity, Category 3
Acute Tox. 4	Acute toxicity, Category 4
Aquatic Acute 1	Hazardous to the aquatic environment, acute, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment, chronic, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic, Category 2
Eye Dam. 1	Serious eye damage, Category 1
Eye Irrit. 2	Eye irritation, Category 2
Flam. Liq. 3	Flammable liquid, Category 3
Org. Perox. E	Organic peroxide, Type E
Skin Corr. 1A	Skin corrosion, Category 1A
Skin Corr. 1B	Skin corrosion, Category 1B
Skin Irrit. 2	Skin irritation, Category 2
Skin Sens. 1	Skin sensitization, Category 1
STOT RE 2	Specific target organ toxicity - repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity - single exposure, Category 3

**Department issuing safety data sheet**

Department product safety

**Supplemental information**

Relevant changes compared with the previous version of the safety data sheet are marked with: \*\*\*  
This information is based on our present state of knowledge. However, it should not constitute a guarantee for any specific product properties and shall not establish a legally valid relationship.

Trade name: Vitralit ® 4282 mod./2

Version: 3 / GB

Date revised: 18.04.2017

Replaces Version: 2 / GB

Print date: 06.06.2017