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

1.1. Product identifier

121-2 part A

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified Uses

SU3	Industrial uses: Uses of substances as such or in preparations at industrial sites
PC1	Adhesives, sealants

Uses advised against

SU21	Consumer uses: Private households (= general public = consumers)

1.3. Details of the supplier of the safety data sheet

Address/Supplier

Cyanotec Ltd
Bay 2 Building 62, Third Avenue,
Pensnett Trading Estate,
Kingswinford, West Midlands DY6
7XT United Kingdom
Tel: +44 (0)1384 294753
Email: sales@cyanotec.com

1.4. Emergency telephone number

: +44 (0)1384 294753 (Office Hours: Monday - Thurday 9:00 to 17:00)

SECTION 2: Hazards identification ***

2.1. Classification of the substance or mixture

Classification (Regulation (EC) No. 1272/2008)

Classification (Regulation (EC) No. 1272/2008)

Flam. Liq. 2	H225
Skin Irrit. 2	H315
Eye Irrit. 2	H319
Skin Sens. 1	H317
STOT SE 3	H335
Aquatic Chronic 3	H412

The product is classified and labelled in accordance with Regulation (EC) No 1272/2008
For explanation of abbreviations see section 16.

2.2. Label elements

Hazard pictograms

Signal word

Danger

Hazard statements ***

H225	Highly flammable liquid and vapour.
H315	Causes skin irritation.
H319	Causes serious eye irritation.

H317	May cause an allergic skin reaction.
H335	May cause respiratory irritation.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261.9	Avoid breathing vapours/spray.
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.

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

contains 2-Hydroxyethyl methacrylate; Methyl-methacrylate; 1,4-Dihydroxybenzene; Cumene Hydroperoxide

2.3. Other hazards

No special hazards have to be mentioned.

SECTION 3: Composition/information on ingredients

Hazardous ingredients

Methyl-methacrylate

CAS No.	80-62-6
EINECS no.	201-297-1
Concentration	>= 50 %

Classification (Regulation (EC) No. 1272/2008)

Flam. Liq. 2	H225
STOT SE 3	H335
Skin Irrit. 2	H315
Skin Sens. 1	H317

Additional remarks:

DSD	Directive 67/548/EEC, Annex I, Note D
CLP	Regulation (EC) No 1272/2008, Annex VI, Note D

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

Cumene Hydroperoxide

CAS No.	80-15-9
EINECS no.	201-254-7
Concentration	>= 1 < 2,5 %

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	>= 3 < 10
STOT SE 3	H335	>= 1 < 10
Skin Corr. 1B	H314	>= 10
Eye Irrit. 2	H319	>= 1 < 3
Skin Irrit. 2	H315	>= 3 < 10

Propylidynetrimethyl trimethacrylate

CAS No. 3290-92-4
EINECS no. 221-950-4
Registration no. 01-2119542176-41
Concentration >= 1 < 2,5 %
Classification (Regulation (EC) No. 1272/2008)

Aquatic Chronic 2	H411

1,4-Dihydroxybenzene

CAS No. 123-31-9
EINECS no. 204-617-8
Registration no. 01-2119524016-51
Concentration >= 0,1 < 1 %
Classification (Regulation (EC) No. 1272/2008)

Aquatic Acute 1	H400
Skin Sens. 1	H317
Eye Dam. 1	H318
Carc. 2	H351
Acute Tox. 4	H302
Muta. 2	H341

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

Aquatic Acute 1	M = 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. In the event of symptoms take medical treatment.

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. Wear full protective suit.

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

Keep away sources of ignition. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Use personal protective 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. Do not discharge into the subsoil/soil. 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. Do not pick up with the help of saw-dust or other combustible substances. Containers in which spilt substance has been collected must be adequately labelled. Dispose of as prescribed.

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). Avoid impact, friction and electro-static loading; risk of ignition!. Keep container tightly closed. Observe the usual precautions for handling chemicals.

Advice on protection against fire and explosion

Keep away from sources of heat and ignition. No smoking. Take precautionary measures against static discharge. Avoid impact and friction. Keep away from combustible material.

7.2. Conditions for safe storage, including any incompatibilities

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.

Hints on storage assembly

Do not store with strong oxidizing agents.

Storage classes

Storage class according to TRGS 510 3 Flammable liquid

Further information on storage conditions

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

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limit values

1,4-Dihydroxybenzene

Value	0,5	mg/m³		

Methyl-methacrylate

Value	208	mg/m³	50	ppm(V)
Short term exposure limit	416	mg/m³	100	ppm(V)

Other information

There are not known any further control parameters.

8.2. Exposure controls

General protective and hygiene measures

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

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment. 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

Form	liquid
Colour	green
Odour	characteristic

Odour threshold

Remarks not determined

pH value

Remarks not determined

Melting point

Remarks	not determined				

Freezing point

Remarks	not determined				

Initial boiling point and boiling range

Value	101				°C

Flash point

Value	10				°C

Evaporation rate (ether = 1) :

Remarks	not determined				

Flammability (solid, gas)

not determined

Upper/lower flammability or explosive limits

Remarks	not determined				

Vapour pressure

Value	47				hPa
Temperature	20	°C			

Vapour density

Remarks	not determined				

Density

Value	1				g/cm³
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	4000	to	6000		mPa.s
Temperature	25	°C			

kinematic

Value	4000	to	6000		mm²/s
Temperature	23	°C			

Explosive properties

evaluation	not determined				

Oxidising properties

Remarks	not determined				

9.2. Other information

Other information

None known

SECTION 10: Stability and reactivity

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.

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)

Methyl-methacrylate

Species	rat		
LD50		7872	mg/kg

Cumene Hydroperoxide

Species	rat		
LD50		382	mg/kg
Source	GESTIS-Stoffdatenbank		

Acute dermal toxicity

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

Acute dermal toxicity (Components)

Methyl-methacrylate

Species	rabbit		
LC50	>	5000	mg/kg

Cumene Hydroperoxide

Species	rat		
LD50		500	mg/kg
Source	GESTIS-Stoffdatenbank		

Acute inhalational toxicity

ATE	>	100	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)

Methyl-methacrylate

Species	rat		
LC50		78000	mg/m³
Duration of exposure		4 h	

Cumene Hydroperoxide

Species	rat			
LC50	1,37			mg/l
Duration of exposure	4	h		
Source	GESTIS-Stoffdatenbank			

Skin corrosion/irritation

Remarks: not determined

Serious eye damage/irritation

Remarks: not determined

Sensitization

Remarks: not determined

Sensitization (Components)

Methyl-methacrylate

evaluation: 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)

Methyl-methacrylate

Species	Fathead minnow (Pimephales promelas)			
LC50	125,5	to	275,0	mg/l
Duration of exposure	96	h		

Daphnia toxicity (Components)

Methyl-methacrylate

Species	Daphnia magna	
EC50	720	mg/l

Algae toxicity (Components)

Methyl-methacrylate

Species	Algae	
EC50	170	mg/l
Duration of exposure	96 h	

12.2. Persistence and degradability

General information

not determined

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.

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	Marine transport IMDG/GGVSee	Air transport ICAO/IATA
Tunnel restriction code	E		
EmS		F-E, S-D	
14.1. UN number	1133	1133	1133
14.2. UN proper shipping name	ADHESIVES (Methyl-methacrylate)	ADHESIVES (Methyl-methacrylate)	ADHESIVES
14.3. Transport hazard class(es)	3	3	3
Label			
14.4. Packing group	III	III	III
Remarks	The product is viscous; packing group III in containers with not more than 450 ltrs.	The product is viscous; packing group III in containers with not more than 450 ltrs.	The product is viscous; packing group III in containers with not more than 450 ltrs.
Limited Quantity	5 l		
Transport category	3		
14.5. Environmental hazards	-	no	-

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

Other information

All components are contained in the TSCA inventory or exempted.
All components are contained in the IECSC inventory.
All components are contained in the ECL inventory.

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

H225	Highly 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.
H335	May cause respiratory irritation.
H341	Suspected of causing genetic defects.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure:
H400	Very toxic to aquatic life.
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 2	Hazardous to the aquatic environment, chronic, Category 2
Carc. 2	Carcinogenicity, Category 2
Eye Dam. 1	Serious eye damage, Category 1
Eye Irrit. 2	Eye irritation, Category 2
Flam. Liq. 2	Flammable liquid, Category 2
Muta. 2	Germ cell mutagenicity, Category 2
Org. Perox. E	Organic peroxide, Type E
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.

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

1.1. Product identifier

Tradelock Pink and Green Part B

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified Uses

SU3	Industrial uses: Uses of substances as such or in preparations at industrial sites
PC1	Adhesives, sealants

Uses advised against

SU21	Consumer uses: Private households (= general public = consumers)

1.3. Details of the supplier of the safety data sheet

Address/Supplier

Trade Grade Products Ltd
10 Victory Close
Wimborne, Dorset
BH21 6SX

Tel: +44(0)1202 820177
Email: sales@thegluepeople.co.uk

1.4. Emergency telephone number

During regular office hours +44(0)1202 820177; all other times call your local Poison Control Center.

SECTION 2: Hazards identification ***

2.1. Classification of the substance or mixture

Classification (Regulation (EC) No. 1272/2008)

Classification (Regulation (EC) No. 1272/2008)

Flam. Liq. 2	H225
Skin Corr. 1A	H314
Eye Dam. 1	H318
Skin Sens. 1	H317
STOT SE 3	H335

The product is classified and labelled in accordance with Regulation (EC) No 1272/2008
For explanation of abbreviations see section 16.

2.2. Label elements

Hazard pictograms

Signal word

Danger

Hazard statements ***

H225	Highly flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H335	May cause respiratory irritation.

Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261.9	Avoid breathing vapours/spray.
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 Methacrylic acid; 1-Benzoyl-2-Ethylimidazol; 2-Hydroxyethyl methacrylate; Methyl-methacrylate

2.3. Other hazards

No special hazards have to be mentioned.

SECTION 3: Composition/information on ingredients

Hazardous ingredients

Methyl-methacrylate

CAS No. 80-62-6
EINECS no. 201-297-1
Concentration >= 50 %
Classification (Regulation (EC) No. 1272/2008)

Flam. Liq. 2	H225
STOT SE 3	H335
Skin Irrit. 2	H315
Skin Sens. 1	H317

Additional remarks:
DSD Directive 67/548/EEC, Annex I, Note D
CLP Regulation (EC) No 1272/2008, Annex VI, Note D

2-Hydroxyethyl methacrylate

CAS No. 868-77-9
EINECS no. 212-782-2
Registration no. 01-2119490169-29
Concentration >= 25 < 50 %
Classification (Regulation (EC) No. 1272/2008)

Eye Irrit. 2	H319
Skin Sens. 1	H317
Skin Irrit. 2	H315

Methacrylic acid

CAS No. 79-41-4
EINECS no. 201-204-4
Registration no. 01-2119463884-26
Concentration >= 10 < 19 %
Classification (Regulation (EC) No. 1272/2008)

Acute Tox. 3	H311
Acute Tox. 4	H302
Skin Corr. 1A	H314
Acute Tox. 4	H332
STOT SE 3	H335

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

STOT SE 3	H335	>= 1

Additional remarks:

DSD Directive 67/548/EEC, Annex I, Note D
CLP Regulation (EC) No 1272/2008, Annex VI, Note D

Monobenzoyl Thiourea
CAS No. 614-23-3
Concentration >= 1 < 9,6 %
Classification (Regulation (EC) No. 1272/2008)
Acute Tox. 4 H302

1-Benzoyl-2-Ethylimidazol
CAS No. 137590-32-0
EINECS no. 415-820-8
Concentration >= 1 < 3 %
Classification (Regulation (EC) No. 1272/2008)
Eye Dam. 1 H318
Skin Sens. 1 H317
Aquatic Chronic 3 H412

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. Wear full protective suit.

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

Keep away sources of ignition. Ensure adequate ventilation. Avoid contact with skin, eyes and clothing. Use personal protective 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. Do not discharge into the subsoil/soil. 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. Do not pick up with the help of saw-dust or other combustible substances. Containers in which spilt substance has been collected must be adequately labelled. Dispose of as prescribed.

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). Observe the usual precautions for handling chemicals. Avoid impact, friction and electro-static loading; risk of ignition!. Keep container tightly closed.

Advice on protection against fire and explosion

Keep away from sources of heat and ignition. No smoking. Take precautionary measures against static discharge. Avoid impact and friction. Keep away from combustible material.

7.2. Conditions for safe storage, including any incompatibilities

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.

Hints on storage assembly

Do not store with strong oxidizing agents.

Storage classes

Storage class according to TRGS 510 3 Flammable liquid

Further information on storage conditions

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

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limit values

Methyl-methacrylate

Value	208	mg/m³	50	ppm(V)
Short term exposure limit	416	mg/m³	100	ppm(V)

Methacrylic acid

Value	72	mg/m³	20	ppm(V)
Short term exposure limit	143	mg/m³	40	ppm(V)

Other information

There are not known any further control parameters.

8.2. Exposure controls

General protective and hygiene measures

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

Respiratory protection

Use NIOSH approved respirator if there is potential to exceed exposure limits. If this material is handled at elevated temperatures, or under mist-forming conditions without engineering controls, a NIOSH approved respirator must be used.

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

Form liquid

Colour pink

Odour characteristic

Odour threshold

Remarks not determined

pH value

Remarks not determined

Melting point

Remarks not determined

Freezing point

Remarks not determined

Initial boiling point and boiling range

Value 101 °C

Flash point

Value 10 °C

Evaporation rate (ether = 1) :

Remarks	not determined			

Flammability (solid, gas)

not determined

Upper/lower flammability or explosive limits

Remarks	not determined			

Vapour pressure

Value	47			hPa
Temperature	20	°C		

Vapour density

Remarks	not determined			

Density

Value	1			g/cm³
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	4000	to	6000	mPa.s
Temperature	25	°C		

kinematic

Value	4000	to	6000	mm²/s
Temperature	23	°C		

Explosive properties

evaluation	not determined			

Oxidising properties

Remarks	not determined			

9.2. Other information

Other information

None known

SECTION 10: Stability and reactivity

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.

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		5.689,6552		mg/kg
Method	calculated value according to GHS (e.g see UN GHS)			

Acute oral toxicity (Components)

Methacrylic acid

Species	rat			
LD50		1320		mg/kg

Methyl-methacrylate

Species	rat			
LD50		7872		mg/kg

Acute dermal toxicity

ATE		5.000		mg/kg
Method	calculated value according to GHS (e.g see UN GHS)			

Acute dermal toxicity (Components)

Methacrylic acid

Species	rabbit			
LD50		500	to 1000	mg/kg

Methyl-methacrylate

Species	rabbit			
LC50	>	5000		mg/kg

Acute inhalational toxicity

ATE		15		mg/l
Administration/Form	Dust/Mist			
Method	calculated value according to GHS (e.g see UN GHS)			
ATE	>	100		mg/l
Administration/Form	Vapors			
Method	calculated value according to GHS (e.g see UN GHS)			

Acute inhalative toxicity (Components)

Methacrylic acid

Species	rat			
LC50		7,1		mg/l
Duration of exposure		4	h	

Methyl-methacrylate

Species	rat			
LC50		78000		mg/m³
Duration of exposure		4	h	

Skin corrosion/irritation

Remarks	not determined

Serious eye damage/irritation

Remarks	not determined

Sensitization

Remarks not determined

Sensitization (Components)

Methacrylic acid

Route of exposure	dermal
Species	guinea pig
evaluation	non-sensitizing

Methyl-methacrylate

evaluation	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)

Methacrylic acid

Species	rainbow trout (Oncorhynchus mykiss)			
LC50	85			mg/l
Duration of exposure	96	h		

Methyl-methacrylate

Species	Fathead minnow (Pimephales promelas)			
LC50	125,5	to	275,0	mg/l
Duration of exposure	96	h		

Daphnia toxicity (Components)

Methacrylic acid

Species	Daphnia magna		
EC50	> 130		mg/l
Duration of exposure	48	h	

Methacrylic acid

Species	Daphnia magna	
NOEC	53	mg/l

Methyl-methacrylate

Species	Daphnia magna	
EC50	720	mg/l

Algae toxicity (Components)

Methacrylic acid

Species	Selenastrum capricornutum		
EC50	45		mg/l
Duration of exposure	72	h	

Methacrylic acid

Species	Selenastrum capricornutum		
NOEC	8,2		mg/l
Duration of exposure	72	h	

Methyl-methacrylate

Species	Algae		
EC50	170		mg/l
Duration of exposure	96	h	

12.2. Persistence and degradability

General information

not determined

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.

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	Marine transport IMDG/GGVSee	Air transport ICAO/IATA
Tunnel restriction code	E		
EmS		F-E, S-D	
14.1. UN number	1133	1133	1133
14.2. UN proper shipping name	ADHESIVES (Methyl-methacrylate, Methacrylic acid)	ADHESIVES (Methyl-methacrylate, Methacrylic acid)	ADHESIVES
14.3. Transport hazard class(es)	3	3	3
Label			
14.4. Packing group	III	III	III
Remarks	The product is viscous; packing group III in containers with not more than 450 ltrs.	The product is viscous; packing group III in containers with not more than 450 ltrs.	The product is viscous; packing group III in containers with not more than 450 ltrs.
Limited Quantity	5 l		
Transport category	3		

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

Other information

All components are contained in the TSCA inventory or exempted.
All components are contained in the IECSC inventory.
All components are contained in the ECL inventory.

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

H225 Highly flammable liquid and vapour.
H302 Harmful if swallowed.
H311 Toxic 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.

H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H412	Harmful 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 Chronic 3	Hazardous to the aquatic environment, chronic, Category 3
Eye Dam. 1	Serious eye damage, Category 1
Eye Irrit. 2	Eye irritation, Category 2
Flam. Liq. 2	Flammable liquid, Category 2
Skin Corr. 1A	Skin corrosion, Category 1A
Skin Irrit. 2	Skin irritation, Category 2
Skin Sens. 1	Skin sensitization, Category 1
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.