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Safety data sheet

BASF Safety data sheet according to Regulation UK SI 2019/758 and UK SI 2020/1577 as amended from time to time.
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Product: **Hydroxypropyl Acrylate (HPA)**
(ID no. 30041308/SDS_GEN_GB/EN)
Date of print 23.10.2025

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

1.1. Product identifier

Hydroxypropyl Acrylate (HPA)

Chemical name: hydroxypropyl acrylate
INDEX-Number: 607-108-00-2
CAS Number: 25584-83-2

REACH registration number: 01-2119459351-41-0000, 01-2119459351-41-0012

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

Relevant identified uses: Monomer.

For the detailed identified uses of the product see appendix of the safety data sheet.

1.3. Details of the supplier of the safety data sheet

Company:
BASF SE
67056 Ludwigshafen
GERMANY

Contact address:
BASF plc
4th and 5th Floors, 2 Stockport Exchange
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1.4. Emergency telephone number

International emergency number:
Telephone: +49 180 2273-112

SECTION 2: Hazards Identification

2.1. Classification of the substance or mixture

According to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567

Acute Tox. 3 (Inhalation - vapour)	H331 Toxic if inhaled.
Acute Tox. 3 (oral)	H301 Toxic if swallowed.
Acute Tox. 3 (dermal)	H311 Toxic in contact with skin.
Skin Corr./Irrit. 1B	H314 Causes severe skin burns and eye damage.
Eye Dam./Irrit. 1	H318 Causes serious eye damage.
Skin Sens. 1	H317 May cause an allergic skin reaction.
Aquatic Chronic 3	H412 Harmful to aquatic life with long lasting effects.

Specific Concentration Limits According to Regulation (EC) No 1272/2008 [CLP]

Skin Sens. 1: >= 0.2 %

According to BASF current knowledge and application of the criteria given in Annex I of Regulation (EC) No. 1272/2008, the following classification exceeding the classification given in Regulation (EC) No 1272/2008, Annex VI, Table 3.1 is required.

Acute Tox. 3 (Inhalation - vapour)
Acute Tox. 3 (oral)
Acute Tox. 3 (dermal)
Skin Corr./Irrit. 1B
Eye Dam./Irrit. 1
Skin Sens. 1B
Aquatic Chronic 3

For the classifications not written out in full in this section the full text can be found in section 16.

2.2. Label elements

According to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567

Pictogram:

Signal Word:
Danger

Hazard Statement:

H317	May cause an allergic skin reaction.
H314	Causes severe skin burns and eye damage.
H301 + H311 + H331	Toxic if swallowed, in contact with skin or if inhaled.
H412	Harmful to aquatic life with long lasting effects.

Precautionary Statements (Prevention):

P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves, protective clothing and eye protection or face protection.

Precautionary Statements (Response):

P310	Immediately call a POISON CENTER or physician.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Precautionary Statements (Storage):

P403 + P233	Store in a well-ventilated place. Keep container tightly closed.

Precautionary Statements (Disposal):

P501	Dispose of contents and container to hazardous or special waste collection point.

Hazard determining component(s) for labelling: acrylic acid, monoester with propane-1,2-diol

2.3. Other hazards

According to GB-CLP Regulations UK SI 2019/720 and UK SI 2020/1567

If applicable information is provided in this section on other hazards which do not result in classification but which may contribute to the overall hazards of the substance or mixture.

See section 12 - Results of PBT and vPvB assessment.

Product does not contain a substance above legal limits included in the list established in accordance with Article 59(1) of Regulation (EC) No 1907/2006 for having endocrine disrupting properties or is identified to have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 3: Composition/Information on Ingredients

3.1. Substances

Chemical nature

acrylic acid, monoester with propane-1,2-diol
CAS Number: 25584-83-2

EC-Number: 247-118-0
INDEX-Number: 607-108-00-2

Hazardous ingredients (GHS)

acrylic acid, monoester with propane-1,2-diol

Content (W/W): 98.5 % - 100 %	Acute Tox. 3 (Inhalation - vapour)
CAS Number: 25584-83-2	Acute Tox. 3 (oral)
EC-Number: 247-118-0	Acute Tox. 3 (dermal)
INDEX-Number: 607-108-00-2	Skin Corr./Irrit. 1B
	Eye Dam./Irrit. 1
	Skin Sens. 1
	Aquatic Chronic 3
	H317, H314, H301 + H311 + H331, H412
	Differing classification according to current knowledge and the criteria given in Annex I of Regulation (EC) No. 1272/2008
	Acute Tox. 3 (Inhalation - vapour)
	Acute Tox. 3 (oral)
	Acute Tox. 3 (dermal)
	Skin Corr./Irrit. 1B
	Eye Dam./Irrit. 1
	Skin Sens. 1B
	Aquatic Chronic 3
	Specific concentration limit:
	Skin Sens. 1: >= 0.2 %

acrylic acid

Content (W/W): 0.1 % - 0.5 %	Aquatic Acute 1
CAS Number: 79-10-7	Acute Tox. 4 (dermal)
EC-Number: 201-177-9	Flam. Liq. 3
INDEX-Number: 607-061-00-8	Eye Dam. 1
	Skin Corr. 1A
	Acute Tox. 4 (Inhalation - vapour)
	Aquatic Chronic 2
	Acute Tox. 4 (oral)
	M-factor acute: 1
	H226, H314, H302 + H312 + H332, H411, H400
	Specific concentration limit:
	STOT SE 3: >= 1 %

For the classifications not written out in full in this section, including the hazard classes and the hazard statements, the full text is listed in section 16.

3.2. Mixtures

Not applicable

SECTION 4: First-Aid Measures

4.1. Description of first aid measures

First aid personnel should pay attention to their own safety. Remove affected person from danger area. Immediately remove contaminated clothing. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Avoid contact with the skin, eyes and clothing.

If inhaled:
Keep patient calm, remove to fresh air, seek medical attention. Immediately administer a corticosteroid from a controlled/metered dose inhaler.

On skin contact:
Immediately wash thoroughly with soap and water, seek medical attention.

On contact with eyes:
Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

On ingestion:
Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention. Do not induce vomiting.

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

Symptoms: Information, i.e. additional information on symptoms and effects may be included in the GHS labeling phrases available in Section 2 and in the Toxicological assessments available in Section 11.

4.3. Indication of any immediate medical attention and special treatment needed

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

SECTION 5: Fire-Fighting Measures

5.1. Extinguishing media

Suitable extinguishing media:
dry powder, water spray, carbon dioxide, foam

Unsuitable extinguishing media for safety reasons:
water jet

Additional information:
Use extinguishing measures to suit surroundings.

5.2. Special hazards arising from the substance or mixture

Advice: Risk of violent self-polymerization if overheated in a container. Cool endangered containers with water-spray.

Advice: Burning produces harmful and toxic fumes. Do not breathe gas/vapour.

Advice: Shut off or stop released substance/product under safe conditions. Do not release chemically contaminated water into drains, soil or surface water. Sufficient measures must be taken to retain the water used for extinguishing. Dispose of contaminated water and soil according to local regulations.

5.3. Advice for fire-fighters

Special protective equipment:
Wear a self-contained breathing apparatus. Special protective equipment for firefighters

Further information:
Extend fire extinguishing measures to the surroundings. Fight fire from maximum distance. Vapours are heavier than air and may accumulate in low areas and travel a considerable distance up to the source of ignition.

In case of a fire in the vicinity a restabilization system should be used if the temperature in the bulk storage-tank reaches 45°C. Evacuate area of all unnecessary personnel. In case of a fire in the vicinity evacuate all personnel in a greater area if the temperature in the bulk storage-tank reaches 60°C.

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

SECTION 6: Accidental Release Measures

High risk of slipping due to leakage/spillage of product.

Release of substance/product can cause fire or explosion. Shut off or stop source of leak. Shut off or stop released substance/product under safe conditions.

Pack in tightly closed containers for disposal.

6.1. Personal precautions, protective equipment and emergency procedures

Avoid all sources of ignition: heat, sparks, open flame. Avoid contact with the skin, eyes and clothing. Ensure adequate ventilation. Breathing protection required.

Take off immediately all contaminated clothing. Keep people away and stay on the upwind side. Beware of pits and confined spaces.

Use antistatic tools. Handle in accordance with good industrial hygiene and safety practice.

6.2. Environmental precautions

Do not discharge into drains/surface waters/groundwater. Contain contaminated water/firefighting water.

6.3. Methods and material for containment and cleaning up

For large amounts: Pump off product.
Spills should be contained, solidified, and placed in suitable containers for disposal. Dispose of absorbed material in accordance with regulations. Ensure adequate ventilation. Suppress gases/vapours/mists with water spray jet. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations. Cleaning operations should be carried out only while wearing breathing apparatus. Pick up with suitable appliance and dispose of.

6.4. Reference to other sections
Information regarding exposure controls/personal protection and disposal considerations can be found in section 8 and 13.

SECTION 7: Handling and Storage

7.1. Precautions for safe handling
The substance/ product may be handled only by appropriately trained personnel. Facility parts must be checked for polymer residues and cleaned on regular basis in order to avoid hazardous reactions.

Ensure thorough ventilation of stores and work areas. Encapsulation or exhaust ventilation required. When filling, transferring, or emptying of containers, adequate local exhaust ventilation is necessary. Vent waste air to atmosphere only through suitable separators. Check the condition of seals and connector screw threads. Do not open warm or swollen product containers. Remove persons to safety and alert fire brigade.

The temperatures which must be avoided are to be considered. Protect against heat. Protect from direct sunlight. Protect contents from the effects of light.

Because of the possible separation from the stabilizer the product should never be partially melted and taken. Ensure that there is no crystallized product in the container before use.

Ensure adequate inhibitor and dissolved oxygen level. Avoid all sources of ignition: heat, sparks, open flame.

Avoid inhalation of dusts/mists/vapours. Avoid aerosol formation. Avoid all direct contact with the substance/product.

Protection against fire and explosion:
Avoid all sources of ignition: heat, sparks, open flame. Substance/product can form explosive mixture with air. Ground all transfer equipment properly to prevent electrostatic discharge. Containers should be grounded against electrostatic charge. It is recommended that all conductive parts of the machinery are grounded. Explosion-proof equipment is not necessary when loading and processing of the product takes place at a minimum of 5 °C below the flash point.

Heated containers should be cooled to prevent polymerization. If exposed to fire, keep containers cool by spraying with water. Emergency cooling must be provided for the eventuality of a fire in the vicinity. Avoid influence of heat.

7.2. Conditions for safe storage, including any incompatibilities
Further information on storage conditions: Prior to storage ensure that the transfer equipment used and the intended storage containers do not contain other substances/products. Before transfer to

stock the identity of the product must be proved to be without doubt. The entrance to storage rooms is to be granted only to appropriately trained personnel.
The stabilizer is only effective in the presence of oxygen. Maintain contact with atmosphere containing 5 - 21% oxygen. Never use tanks with inert-gas installation for storage.
Risk of polymerization. Protect against heat. Protect from direct sunlight. Protect contents from the effects of light. Avoid UV-light and other radiation with high energy. Protect against contamination.
In case of bulk storage, the storage-tanks should at least be equipped with two high temperature alert devices.
Do not store product below the indicated minimum temperature, because crystallization should be absolutely avoided.
Even if the product is stored and handled as prescribed/indicated it should be used up within the indicated duration of storage.

Storage stability:
Storage temperature: < 35 °C
Storage duration: 12 Months
The stated storage temperature should be noted.
Avoid prolonged storage.
This product should be processed as soon as possible.
Ensure adequate inhibitor and dissolved oxygen level.
Do not store with less than 10 % headspace above liquid.
Storage stability is based upon ambient temperatures and conditions described.
It is recommended to keep a safe distance of +2 degrees above the crystallization range.
The product is stabilized, the shelf life should be noted.
Storage temperature: 45 °C
A restabilization system should be used if the temperature in the bulk storage-tank reaches the indicated value.
Storage temperature: 60 °C
All personnel in a greater area should be evacuated if the temperature in the bulk storage-tank reaches the indicated value.

Protect from temperatures above: 35 °C
Changes in the properties of the product may occur if substance/product is stored above indicated temperature for extended periods of time.

7.3. Specific end use(s)
See exposure scenario(s) in the attachment to this safety data sheet.

SECTION 8: Exposure Controls/Personal Protection

8.1. Control parameters

Components with occupational exposure limits

79-10-7: acrylic acid
STEL value 59 mg/m3 ; 20 ppm (OEL (EU))
indicative
TWA value 29 mg/m3 ; 10 ppm (OEL (EU))
indicative

TWA value 29 mg/m3 ; 10 ppm (WEL/EH 40 (UK))
STEL value 59 mg/m3 ; 20 ppm (WEL/EH 40 (UK))
Ceiling limit value/factor: 15 min
STEL value 59 mg/m3 ; 20 ppm (WEL/EH 40 (UK))
Ceiling limit value/factor: 1 min

PNEC
freshwater: 0.0096 mg/l

marine water: 0.00096 mg/l

intermittent release: 0.0361 mg/l

STP: 10 mg/l

sediment (freshwater): 0.036 mg/kg

sediment (marine water): 0.0036 mg/kg

soil: 0.00156 mg/kg

DNEL
worker:
Long-term exposure - local effects, Inhalation: 2.4 mg/m3

consumer:
Long-term exposure - local effects, Inhalation: 1.2 mg/m3

8.2. Exposure controls

Personal protective equipment

Respiratory protection:
Suitable respiratory protection for lower concentrations or short-term effect: Gas filter for gases/vapours of organic compounds (boiling point >65 °C, e. g. EN 14387 Type A)

Hand protection:
Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN ISO 374-1):
fluoroelastomer (FKM) - 0.7 mm coating thickness
nitrile rubber (NBR) - 0.4 mm coating thickness
Supplementary note: The specifications are based on tests, literature data and information of glove manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g. temperature) it must be considered, that the practical usage of a chemical-protective glove in practice may be much shorter than the permeation time determined through testing.
Manufacturer's directions for use should be observed because of great diversity of types.

Eye protection:
Tightly fitting safety goggles (splash goggles) (e.g. EN 166)

Body protection:
Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

General safety and hygiene measures
Avoid inhalation of vapour. Avoid contact with the skin, eyes and clothing. Wearing of closed work clothing is required additionally to the stated personal protection equipment. Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls
All appropriate measures must be taken to prevent the release of this product to the environment and to limit the dispersion of any release when it occurs. Suitable risk management measures should be in place.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Form:	liquid	
Colour:	colourless	
Odour:	acrylic-like	
Odour threshold:	not determined	
pH value:	(20 °C) neutral, miscible	
Melting point:	-23.4 °C Literature data.	
Boiling point:	198.5 °C (1,013.25 hPa) Cannot be distilled without decomposition at normal pressure.	
Flash point:	99 °C	(ISO 2719, closed cup)
Evaporation rate:	Value can be approximated from Henry's Law Constant or vapor pressure.	
Flammability:	hardly combustible	(derived from flash point)
Lower explosion limit:	For liquids not relevant for classification and labelling., The lower explosion point may be 5 - 15 °C below the flash point.	
Upper explosion limit:	For liquids not relevant for classification and labelling.	
Ignition temperature:	308 °C	(DIN EN 14522)

Vapour pressure:	0.1 hPa (20 °C) dynamic	(measured)
Density:	1.054 g/cm3 (20 °C)	(ISO 2811-3)
	1.0256 g/cm3 (50 °C)	(OECD Guideline 109)
Relative density:	0.1049 (25 °C) Literature data.	
Relative vapour density (air):	4.5 (20 °C) Heavier than air.	(calculated)
Solubility in water:	miscible	(OECD Guideline 105)
Partitioning coefficient n-octanol/water (log Kow):	0.2 (25 °C)	(measured)
Self ignition:	Temperature: 20 °C Based on its structural properties the product is not classified as self-igniting.	Test type: Spontaneous self-ignition at room-temperature.
Viscosity, dynamic:	9.1 mPa.s (20 °C)	(calculated (from kinematic viscosity))
Viscosity, kinematic:	8.63 mm2/s (20 °C)	(OECD Guideline 114)
Explosion hazard:	Based on the chemical structure there is no indication of explosive properties.	
Fire promoting properties:	Based on its structural properties the product is not classified as oxidizing.	

9.2. Other information

Self heating ability:	Not tested on account of the low melting-point. It is not a substance capable of spontaneous heating.
SADT:	Not a substance/mixture liable to self-decomposition according to GHS.
pKA:	The substance does not dissociate., Study scientifically not justified.
Adsorption/water - soil:	KOC: 1.49; log KOC: 0.17 (calculated)
Surface tension:	Based on chemical structure, surface activity is not to be expected.
Grain size distribution:	The substance / product is marketed or used in a non solid or granular form.
Molar mass:	130.14 g/mol

SECTION 10: Stability and Reactivity

10.1. Reactivity
No hazardous reactions if stored and handled as prescribed/indicated.

Corrosion to metals:	No corrosive effect on metal.	
Reactions with water/air:	Reaction with:	water
	Flammable gases:	no
	Toxic gases:	no
Formation of flammable gases:	Remarks:	Forms no flammable gases in the presence of water.

10.2. Chemical stability
The product is stable if stored and handled as prescribed/indicated.

10.3. Possibility of hazardous reactions
Explosion and fire hazard exists under confined conditions. Ignitable air mixtures can form when the product is heated above the flash point and/or when sprayed or atomized. Formation of explosive gas/air mixtures.

Polymerization coupled with heat formation.

Risk of spontaneous polymerization by oxygen depletion of the liquid phase. Risk of spontaneous polymerization when heated or in the presence of UV radiation. Risk of spontaneous and violent self-polymerization if inhibitor is lost or product is exposed to excessive heat. Polymerization produces gases which may burst closed or confined containers. Reactions may cause ignition.

Radical formation can cause exothermic polymerization. Reacts with peroxides and other radical components. Risk of spontaneous polymerization in the presence of starters for radical chain reactions (e.g. peroxides). Reacts with nitric acid. Polymerizes explosively in contact with strong oxidizing agents. Risk of spontaneous polymerization in the presence of oxidizing agents.

Hazardous reactions in presence of mentioned substances to avoid.

The product is stabilized against spontaneous polymerization prior to despatch. The product is stable if stored and handled as prescribed/indicated.

10.4. Conditions to avoid
Avoid heat. Avoid oxygen content above the product of less than 5 %. Avoid UV-light and other radiation with high energy. Avoid direct sunlight. Avoid prolonged storage. Avoid inhibitor loss. Avoid excessive temperatures. Avoid all sources of ignition: heat, sparks, open flame. Avoid freezing. Avoid moisture. Avoid temperatures below the crystallization range.

10.5. Incompatible materials

Substances to avoid:
radical formers, free radical initiators, peroxides, mercaptans, nitro-compounds, perborates, azides, ether, ketones, aldehydes, amines, nitrates, nitrites, oxidizing agents, reducing agents, strong bases, alkaline reactive substances, acid anhydrides, acid chlorides, concentrated mineral acids, metal salts
Inert gas

10.6. Hazardous decomposition products

Hazardous decomposition products:
No hazardous decomposition products if stored and handled as prescribed/indicated.

SECTION 11: Toxicological Information

11.1. Information on toxicological effects

Acute toxicity

Assessment of acute toxicity:
Of moderate toxicity after single ingestion. Of moderate toxicity after short-term skin contact. The inhalation of a highly enriched/saturated vapor-air-mixture represents an unlikely acute hazard. The European Union (EU) has classified the substance as "toxic" after inhalation. The European Union (EU) has classified the substance as "toxic" after dermal exposure. The European Union (EU) has classified the substance as "toxic" after oral exposure.

Experimental/calculated data:
LD50 rat (oral): 820 mg/kg (similar to OECD guideline 401)

LC50 rat (by inhalation): > 0.38 mg/l 8 h (similar to OECD guideline 403)
Inhalation-risk test (IRT): No mortality within 8 hours as shown in animal studies. The inhalation of a highly saturated vapor-air mixture represents no acute hazard. The vapour was tested.

LD50 rat (dermal): > 1,000 mg/kg (OECD Guideline 402)
No mortality was observed.

LD50 mouse (intraperitoneal): approx. 0,45 ml/kg

Irritation

Assessment of irritating effects:
Corrosive! Damages skin and eyes.

Experimental/calculated data:
Skin corrosion/irritation
rabbit: Corrosive. (BASF-Test)

Serious eye damage/irritation
rabbit: irreversible damage (BASF-Test)

Respiratory/Skin sensitization

Assessment of sensitization:
Sensitization after skin contact possible.

Experimental/calculated data:
Mouse Local Lymph Node Assay (LLNA) mouse: skin sensitizing (similar to OECD guideline 429)

Germ cell mutagenicity

Assessment of mutagenicity:
Results from a number of mutagenicity studies with microorganisms, mammalian cell culture and mammals are available. Taking into account all of the information, there is no indication that the substance is mutagenic. The product has not been fully tested. The statements have been derived in parts from products of a similar structure or composition.

Carcinogenicity

Assessment of carcinogenicity:
In long-term animal studies in which the substance was given by inhalation, a carcinogenic effect was not observed. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Reproductive toxicity

Assessment of reproduction toxicity:
The results of animal studies gave no indication of a fertility impairing effect.

Developmental toxicity

Assessment of teratogenicity:
No indications of a developmental toxic / teratogenic effect were seen in animal studies. The product has not been fully tested. The statements have been derived in parts from products of a similar structure or composition.

Experiences in humans

Experimental/calculated data:

Danger of skin sensitization on repeated contact.

Specific target organ toxicity (single exposure)

Assessment of STOT single:
Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:
After repeated exposure the prominent effect is local irritation. No substance-specific organtoxicity was observed after repeated administration to animals. The product has not been fully tested. The statements have been derived in parts from products of a similar structure or composition.

Aspiration hazard

No aspiration hazard expected.

SECTION 12: Ecological Information

12.1. Toxicity

Assessment of aquatic toxicity:
Acutely toxic for aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

Toxicity to fish:
LC50 (96 h) 3.61 mg/l, Pimephales promelas (Fish test acute, Flow through.)
Literature data. The statement of the toxic effect relates to the analytically determined concentration.

Aquatic invertebrates:
EC50 (48 h) 24 mg/l, Daphnia magna (OECD Guideline 202, part 1, static)
The details of the toxic effect relate to the nominal concentration.

Aquatic plants:
EC50 (96 h) 6.98 mg/l (growth rate), Selenastrum capricornutum (OECD Guideline 201, static)
The details of the toxic effect relate to the nominal concentration.

Microorganisms/Effect on activated sludge:
EC20 (0.5 h) approx. 1,000 mg/l, activated sludge (DIN EN ISO 8192-OECD 209-88/302/EEC,P. C, aerobic)

Chronic toxicity to fish:
No data available.

Chronic toxicity to aquatic invertebrates:
No observed effect concentration (21 d) 0.86 mg/l, Daphnia magna (OECD Guideline 211, semistatic)
The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Assessment of terrestrial toxicity:

No data available.

12.2. Persistence and degradability

Assessment biodegradation and elimination (H2O):
Readily biodegradable (according to OECD criteria).

Elimination information:
90 - 100 % DOC reduction (14 d) (OECD 301 A (new version)) (aerobic, activated sludge, domestic)

Assessment of stability in water:
In contact with water the substance will hydrolyse slowly.
Information on Stability in Water (Hydrolysis):
$t_{1/2}$ > 490 d, (28 d) (25 °C, pH value 3), (OPPTS 835.2130, other)

$t_{1/2}$ > 230 d, (28 d) (25 °C, pH value 7), (OPPTS 835.2130, pH 7)

$t_{1/2}$ 12.27 d, (7 d) (25 °C, pH value 11), (OPPTS 835.2130, other)

12.3. Bioaccumulative potential

Assessment bioaccumulation potential:
Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.

Bioaccumulation potential:
No data available.

12.4. Mobility in soil

Assessment transport between environmental compartments:
Volatility: The substance will not evaporate into the atmosphere from the water surface.
Adsorption in soil: Adsorption to solid soil phase is not expected.

12.5. Results of PBT and vPvB assessment

According to Annex XIII of Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): The product does not fulfill the criteria for PBT (Persistent/bioaccumulative/toxic) and vPvB (very persistent/very bioaccumulative). Self classification

12.6. Other adverse effects

The substance is not listed in Regulation (EC) 1005/2009 on substances that deplete the ozone layer.

12.7. Additional information

Sum parameter

Chemical oxygen demand (COD): 1,705 mg/g

Biochemical oxygen demand (BOD) Incubation period 5 d: < 10 mg/g

Other ecotoxicological advice:
Do not release untreated into natural waters.

SECTION 13: Disposal Considerations

13.1. Waste treatment methods

Must be sent to a suitable incineration plant, observing local regulations.

The UK Environmental Protection (Duty of Care) Regulations (EP) and amendments should be noted (United Kingdom).
This product and any uncleaned containers must be disposed of as hazardous waste in accordance with the 2005 Hazardous Waste Regulations and amendments (United Kingdom)

Contaminated packaging:
Uncleaned empties should be disposed of in the same manner as the contents.

SECTION 14: Transport Information

Land transport

ADR

UN number or ID number:	UN1760
UN proper shipping name:	CORROSIVE LIQUID, N.O.S. (contains HYDROXYPROPYL ACRYLATE, STABILIZED)
Transport hazard class(es):	8
Packing group:	II
Environmental hazards:	no
Special precautions for user:	Tunnel code: E

RID

UN number or ID number:	UN1760
UN proper shipping name:	CORROSIVE LIQUID, N.O.S. (contains HYDROXYPROPYL ACRYLATE, STABILIZED)
Transport hazard class(es):	8
Packing group:	II
Environmental hazards:	no
Special precautions for user:	None known

Inland waterway transport

ADN

UN number or ID number:	UN1760
UN proper shipping name:	CORROSIVE LIQUID, N.O.S. (contains HYDROXYPROPYL ACRYLATE, STABILIZED)
Transport hazard class(es):	8
Packing group:	II
Environmental hazards:	no
Special precautions for user:	None known

Transport in inland waterway vessel
Not evaluated

Sea transport

IMDG

UN number or ID number:	UN 1760
UN proper shipping name:	CORROSIVE LIQUID, N.O.S. (contains HYDROXYPROPYL ACRYLATE, STABILIZED)
Transport hazard class(es):	8
Packing group:	II
Environmental hazards:	no Marine pollutant: NO
Special precautions for user:	

Air transport

IATA/ICAO

UN number or ID number:	UN 1760
UN proper shipping name:	CORROSIVE LIQUID, N.O.S. (contains HYDROXYPROPYL ACRYLATE, STABILIZED)
Transport hazard class(es):	8
Packing group:	II
Environmental hazards:	No Mark as dangerous for the environment is needed
Special precautions for user:	None known

14.1. UN number or ID number
See corresponding entries for “UN number or ID number” for the respective regulations in the tables above.

14.2. UN proper shipping name

See corresponding entries for “UN proper shipping name” for the respective regulations in the tables above.

14.3. Transport hazard class(es)
See corresponding entries for “Transport hazard class(es)” for the respective regulations in the tables above.

14.4. Packing group
See corresponding entries for “Packing group” for the respective regulations in the tables above.

14.5. Environmental hazards
See corresponding entries for “Environmental hazards” for the respective regulations in the tables above.

14.6. Special precautions for user
See corresponding entries for “Special precautions for user” for the respective regulations in the tables above.

14.7. Maritime transport in bulk according to IMO instruments

Maritime transport in bulk is not intended.

Further information
This product is subject to the most recent edition of "The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations" and their amendments (United Kingdom). According to SP386 it is ensured that the level of chemical stabilization is sufficient to prevent dangerous polymerization during total duration of carriage. This information is valid for the recently stabilized product.

SECTION 15: Regulatory Information

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

Prohibitions, Restrictions and Authorizations

Annex XVII of Regulation (EC) No 1907/2006: Number on List: 75, 3

Directive 2012/18/EU - Control of Major Accident Hazards involving dangerous substances (EU):
List entry in regulation: H2
Classification applies for standard conditions of temperature and pressure.

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

The data should be considered when making any assessment under the Control of Substances Hazardous to Health Regulations (COSHH), and related guidance, for example, 'COSHH Essentials' (United Kingdom).
This product may be subject to the Control of Major Accident Hazards Regulations (COMAH), and amendments if specific threshold tonnages are exceeded (United Kingdom).

15.2. Chemical Safety Assessment

Chemical Safety Assessment performed

SECTION 16: Other Information

Assessment of the hazard classes according to UN GHS criteria (most recent version)

Skin Corr./Irrit. 1B
Skin Sens. 1B
Acute Tox. 4 (dermal)
Acute Tox. 4 (oral)
Eye Dam./Irrit. 1
Aquatic Acute 2
Aquatic Chronic 3

Safe Handling and Storage aspects are covered in a brochure which is available on request.

Full text of the classifications, including the hazard classes and the hazard statements, if mentioned in section 2 or 3:

Acute Tox.	Acute toxicity
Skin Corr./Irrit.	Skin corrosion/irritation
Eye Dam./Irrit.	Serious eye damage/eye irritation
Skin Sens.	Skin sensitization
Aquatic Chronic	Hazardous to the aquatic environment - chronic
Aquatic Acute	Hazardous to the aquatic environment - acute
Flam. Liq.	Flammable liquids
Eye Dam.	Serious eye damage
Skin Corr.	Skin corrosion
STOT SE	Specific target organ toxicity — single exposure
H317	May cause an allergic skin reaction.
H314	Causes severe skin burns and eye damage.
H301 + H311 + H331	Toxic if swallowed, in contact with skin or if inhaled.
H412	Harmful to aquatic life with long lasting effects.
H226	Flammable liquid and vapour.
H302 + H312 + H332	Harmful if swallowed, in contact with skin or if inhaled.
H411	Toxic to aquatic life with long lasting effects.
H400	Very toxic to aquatic life.

Abbreviations

ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road. ADN = The European Agreement concerning the International Carriage of Dangerous Goods by Inland waterways. ATE = Acute Toxicity Estimates. CAO = Cargo Aircraft Only. CAS = Chemical Abstract Service. CLP = Classification, Labelling and Packaging of substances and mixtures. DIN = German national organization for standardization. DNEL = Derived No Effect Level. EC50 = Effective concentration median for 50% of the population. EC = European Community. EN = European Standards. IARC = International Agency for Research on Cancer. IATA = International Air Transport Association. IBC-Code = Intermediate Bulk Container code. IMDG = International Maritime Dangerous Goods Code. ISO = International Organization for Standardization. STEL = Short-Term Exposure Limit. LC50 = Lethal concentration median for 50% of the population. LD50 = Lethal dose median for 50% of the population. TLV = Threshold Limit Value. MARPOL = The International Convention for the Prevention of Pollution from Ships. NEN = Dutch Norm. NOEC = No Observed Effect Concentration. OEL = Occupational Exposure Limit. OECD = Organization for Economic Cooperation and Development. PBT = Persistent, Bioaccumulative and Toxic. PNEC = Predicted No Effect Level. PPM = Parts per million. RID = The European Agreement concerning the International Carriage of Dangerous Goods by Rail. TWA = Time Weight Average. UN-number = UN number at transport. vPvB = very Persistent and very Bioaccumulative.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

Annex: Exposure Scenarios

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1. Polymer production, (use in industrial settings)
SU8, SU9, SU12; ERC6c; PROC1, PROC2, PROC3, PROC4, PROC5, PROC8a, PROC8b, PROC9

2. Polymer production, Downstream User, (use in industrial settings)
SU8, SU9, SU12; ERC6c; PROC1, PROC2, PROC3, PROC4, PROC5, PROC8a, PROC8b, PROC9

3. Use as laboratory reagent/agent, (use in industrial settings)
SU8, SU9, SU24; ERC6c; PROC15

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1. Short title of exposure scenario

Polymer production, (use in industrial settings)
SU8, SU9, SU12; ERC6c; PROC1, PROC2, PROC3, PROC4, PROC5, PROC8a, PROC8b, PROC9

Control of exposure and risk management measures

Contributing exposure scenario		
Use descriptors covered	ERC6c: Use of monomer in polymerisation processes at industrial site (inclusion or not into/onto article)	
Operational conditions		
Annual amount used in the EU	3,000,000 kg	
Minimum emission days per year	100	
Emission factor air	0.01 %	
Emission factor water	5 %	
Emission factor soil	0 %	
Receive Surf. Water (Flow Rate).	18,000 m3/d	
Dilution factor river	10	
Dilution factor coast	100	
Risk Management Measures		
Soil treatment measures considered suitable are, e.g.		No application of sludge to soil
Type of STP		Municipal STP
Assumed sewage treatment plant flow (m3/d)		2,000 m3/d
Exposure estimate and reference to its source		
Assessment method	EASY TRA v5.2, ECETOC TRA v3.0, Environment	
Risk Characterization Ratio (RCR)	0.100218	
	Risk from environmental exposure is driven by freshwater.	

Maximum amount of safe use	299,347.1 kg/d
Risk from environmental exposure is driven by freshwater.	

Contributing exposure scenario	
Use descriptors covered	PROC1: Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions. Use domain: industrial
Operational conditions	
Concentration of the substance	acrylic acid, monoester with propane-1,2-diol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	1 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Avoid skin contact. Ensure doors and windows are opened (general ventilation).	
Use suitable eye protection.	
Avoid contact with contaminated tools. Avoid skin contact. Clean up contamination as soon as they occur. Wash off any skin contamination immediately.	
Change gloves, if duration of activity exceeds break through time, Wear chemically resistant gloves in combination with ‘basic’ employee training.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v5.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	0.0542 mg/m³
Risk Characterization Ratio (RCR)	0.022569
Assessment method	Qualitative assessment
	Worker - dermal
Additional good practice advice	
Local exhaust ventilation and / or general ventilation are / is advisable.	
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario

Use descriptors covered	PROC2: Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions Use domain: industrial
Operational conditions	
Concentration of the substance	acrylic acid, monoester with propane-1,2-diol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	1 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Local exhaust ventilation	Effectiveness: 90 %
Provide a good standard of general or controlled ventilation (5 to 10 air changes per hour)	Effectiveness: 70 %
Avoid skin contact. Ensure doors and windows are opened (general ventilation).	
Use suitable eye protection.	
Avoid contact with contaminated tools. Avoid skin contact. Clean up contamination as soon as they occur. Wash off any skin contamination immediately.	
Change gloves, if duration of activity exceeds break through time, Wear chemically resistant gloves in combination with ‘basic’ employee training.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v5.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	0.1625 mg/m³
Risk Characterization Ratio (RCR)	0.067708
Assessment method	Qualitative assessment
	Worker - dermal
Additional good practice advice	
Local exhaust ventilation and / or general ventilation are / is advisable.	
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC3: Manufacture or formulation in the chemical industry in closed batch processes with occasional

	controlled exposure or processes with equivalent containment condition Use domain: industrial
Operational conditions	
Concentration of the substance	acrylic acid, monoester with propane-1,2-diol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	1 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Local exhaust ventilation	Effectiveness: 90 %
Avoid skin contact. Ensure doors and windows are opened (general ventilation).	
Use suitable eye protection.	
Avoid contact with contaminated tools. Avoid skin contact. Clean up contamination as soon as they occur. Wash off any skin contamination immediately.	
Change gloves, if duration of activity exceeds break through time, Wear chemically resistant gloves in combination with 'basic' employee training.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v5.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	1.625 mg/m³
Risk Characterization Ratio (RCR)	0.677083
Assessment method	Qualitative assessment
	Worker - dermal
Additional good practice advice	
Local exhaust ventilation and / or general ventilation are / is advisable.	
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC4: Chemical production where opportunity for exposure arises Use domain: industrial
Operational conditions	
Concentration of the substance	acrylic acid, monoester with propane-1,2-diol

	Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	1 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Local exhaust ventilation	Effectiveness: 90 %
Provide a good standard of general or controlled ventilation (5 to 10 air changes per hour)	Effectiveness: 70 %
Avoid skin contact. Ensure doors and windows are opened (general ventilation).	
Use suitable eye protection.	
Avoid contact with contaminated tools. Avoid skin contact. Clean up contamination as soon as they occur. Wash off any skin contamination immediately.	
Change gloves, if duration of activity exceeds break through time, Wear chemically resistant gloves in combination with 'basic' employee training.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v5.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	0.8125 mg/m³
Risk Characterization Ratio (RCR)	0.338542
Assessment method	Qualitative assessment
	Worker - dermal
Additional good practice advice	
Local exhaust ventilation and / or general ventilation are / is advisable.	
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC5: Mixing or blending in batch processes Use domain: industrial
Operational conditions	
Concentration of the substance	acrylic acid, monoester with propane-1,2-diol Content: >= 0 % - <= 25 %
Physical state	liquid
Vapour pressure of the substance	1 Pa

during use	
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Local exhaust ventilation	Effectiveness: 90 %
Avoid skin contact. Ensure doors and windows are opened (general ventilation).	
Use suitable eye protection.	
Avoid contact with contaminated tools. Avoid skin contact. Clean up contamination as soon as they occur. Wash off any skin contamination immediately.	
Change gloves, if duration of activity exceeds break through time, Wear chemically resistant gloves in combination with 'basic' employee training.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v5.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	1.625 mg/m³
Risk Characterization Ratio (RCR)	0.677083
Assessment method	Qualitative assessment
	Worker - dermal
Additional good practice advice	
Local exhaust ventilation and / or general ventilation are / is advisable.	
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC8a: Transfer of substance or mixture (charging and discharging) at non-dedicated facilities Use domain: industrial
Operational conditions	
Concentration of the substance	acrylic acid, monoester with propane-1,2-diol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	1 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	

Provide a good standard of general or controlled ventilation (5 to 10 air changes per hour)	Effectiveness: 70 %
Wear suitable respiratory protection.	Effectiveness: 90 %
Avoid skin contact. Ensure doors and windows are opened (general ventilation).	
Use suitable eye protection.	
Avoid contact with contaminated tools. Avoid skin contact. Clean up contamination as soon as they occur. Wash off any skin contamination immediately.	
Change gloves, if duration of activity exceeds break through time, Wear chemically resistant gloves in combination with 'basic' employee training.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v5.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	1.625 mg/m³
Risk Characterization Ratio (RCR)	0.677083
Assessment method	Qualitative assessment
	Worker - dermal
Additional good practice advice	
Local exhaust ventilation and / or general ventilation are / is advisable.	
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC8b: Transfer of substance or mixture (charging and discharging) at dedicated facilities Use domain: industrial
Operational conditions	
Concentration of the substance	acrylic acid, monoester with propane-1,2-diol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	1 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Local exhaust ventilation	Effectiveness: 95 %
Avoid skin contact. Ensure doors and windows are opened (general	

ventilation).	
Use suitable eye protection.	
Avoid contact with contaminated tools. Avoid skin contact. Clean up contamination as soon as they occur. Wash off any skin contamination immediately.	
Change gloves, if duration of activity exceeds break through time, Wear chemically resistant gloves in combination with 'basic' employee training.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v5.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	1.3542 mg/m³
Risk Characterization Ratio (RCR)	0.564236
Assessment method	Qualitative assessment
	Worker - dermal
Additional good practice advice	
Local exhaust ventilation and / or general ventilation are / is advisable.	
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing). Use domain: industrial
Operational conditions	
Concentration of the substance	acrylic acid, monoester with propane-1,2-diol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	1 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Local exhaust ventilation	Effectiveness: 90 %
Provide a good standard of general or controlled ventilation (5 to 10 air changes per hour)	Effectiveness: 70 %
Avoid skin contact. Ensure doors and windows are opened (general ventilation).	
Use suitable eye protection.	
Avoid contact with contaminated tools.	

Avoid skin contact. Clean up contamination as soon as they occur. Wash off any skin contamination immediately.	
Change gloves, if duration of activity exceeds break through time, Wear chemically resistant gloves in combination with 'basic' employee training.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v5.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	0.8125 mg/m³
Risk Characterization Ratio (RCR)	0.338542
Assessment method	Qualitative assessment
	Worker - dermal
Additional good practice advice	
Local exhaust ventilation and / or general ventilation are / is advisable.	
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

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2. Short title of exposure scenario

Polymer production, Downstream User, (use in industrial settings)
SU8, SU9, SU12; ERC6c; PROC1, PROC2, PROC3, PROC4, PROC5, PROC8a, PROC8b, PROC9

Control of exposure and risk management measures

Contributing exposure scenario	
Use descriptors covered	ERC6c: Use of monomer in polymerisation processes at industrial site (inclusion or not into/onto article)
Operational conditions	
Annual amount used in the EU	3,000,000 kg
Minimum emission days per year	180
Emission factor air	0.01 %
Emission factor water	0.1 %
Emission factor soil	0 %
Receive Surf. Water (Flow Rate).	18,000 m3/d
Dilution factor river	10
Dilution factor coast	100

Risk Management Measures	
Soil treatment measures considered suitable are, e.g.	No application of sludge to soil
Type of STP	Municipal STP
Assumed sewage treatment plant flow (m3/d)	2,000 m3/d
Exposure estimate and reference to its source	
Assessment method	EASY TRA v5.2, ECETOC TRA v3.0, Environment
Risk Characterization Ratio (RCR)	0.516007
	Risk from environmental exposure is driven by freshwater.
Maximum amount of safe use	1,938 kg/d
Risk from environmental exposure is driven by freshwater.	

Contributing exposure scenario	
Use descriptors covered	PROC1: Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions. Use domain: industrial
Operational conditions	
Concentration of the substance	acrylic acid, monoester with propane-1,2-diol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	1 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Avoid skin contact. Ensure doors and windows are opened (general ventilation).	
Use suitable eye protection.	
Avoid contact with contaminated tools. Avoid skin contact. Clean up contamination as soon as they occur. Wash off any skin contamination immediately.	
Change gloves, if duration of activity exceeds break through time, Wear chemically resistant gloves in combination with ‘basic’ employee training.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v5.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	0.0542 mg/m³
Risk Characterization Ratio (RCR)	0.022569

Assessment method	Qualitative assessment
	Worker - dermal
Additional good practice advice	
Local exhaust ventilation and / or general ventilation are / is advisable.	
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC2: Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions Use domain: industrial
Operational conditions	
Concentration of the substance	acrylic acid, monoester with propane-1,2-diol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	1 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Local exhaust ventilation	Effectiveness: 90 %
Provide a good standard of general or controlled ventilation (5 to 10 air changes per hour)	Effectiveness: 70 %
Avoid skin contact. Ensure doors and windows are opened (general ventilation).	
Use suitable eye protection.	
Avoid contact with contaminated tools. Avoid skin contact. Clean up contamination as soon as they occur. Wash off any skin contamination immediately.	
Change gloves, if duration of activity exceeds break through time, Wear chemically resistant gloves in combination with ‘basic’ employee training.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v5.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	0.1625 mg/m³
Risk Characterization Ratio (RCR)	0.067708
Assessment method	Qualitative assessment
	Worker - dermal

Additional good practice advice
Local exhaust ventilation and / or general ventilation are / is advisable.
Guidance to Downstream Users
For scaling see: http://www.ecetoc.org/tra

Contributing exposure scenario	
Use descriptors covered	PROC3: Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition Use domain: industrial
Operational conditions	
Concentration of the substance	acrylic acid, monoester with propane-1,2-diol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	1 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Local exhaust ventilation	Effectiveness: 90 %
Avoid skin contact. Ensure doors and windows are opened (general ventilation).	
Use suitable eye protection.	
Avoid contact with contaminated tools. Avoid skin contact. Clean up contamination as soon as they occur. Wash off any skin contamination immediately.	
Change gloves, if duration of activity exceeds break through time, Wear chemically resistant gloves in combination with ‘basic’ employee training.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v5.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	1.625 mg/m³
Risk Characterization Ratio (RCR)	0.677083
Assessment method	Qualitative assessment
	Worker - dermal
Additional good practice advice	
Local exhaust ventilation and / or general ventilation are / is advisable.	
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC4: Chemical production where opportunity for exposure arises Use domain: industrial
Operational conditions	
Concentration of the substance	acrylic acid, monoester with propane-1,2-diol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	1 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Local exhaust ventilation	Effectiveness: 90 %
Provide a good standard of general or controlled ventilation (5 to 10 air changes per hour)	Effectiveness: 70 %
Avoid skin contact. Ensure doors and windows are opened (general ventilation).	
Use suitable eye protection.	
Avoid contact with contaminated tools. Avoid skin contact. Clean up contamination as soon as they occur. Wash off any skin contamination immediately.	
Change gloves, if duration of activity exceeds break through time, Wear chemically resistant gloves in combination with ‘basic’ employee training.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v5.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	0.8125 mg/m³
Risk Characterization Ratio (RCR)	0.338542
Assessment method	Qualitative assessment
	Worker - dermal
Additional good practice advice	
Local exhaust ventilation and / or general ventilation are / is advisable.	
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC5: Mixing or blending in batch processes

	Use domain: industrial
Operational conditions	
Concentration of the substance	acrylic acid, monoester with propane-1,2-diol Content: >= 0 % - <= 25 %
Physical state	liquid
Vapour pressure of the substance during use	1 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Local exhaust ventilation	Effectiveness: 90 %
Avoid skin contact. Ensure doors and windows are opened (general ventilation).	
Use suitable eye protection.	
Avoid contact with contaminated tools. Avoid skin contact. Clean up contamination as soon as they occur. Wash off any skin contamination immediately.	
Change gloves, if duration of activity exceeds break through time, Wear chemically resistant gloves in combination with 'basic' employee training.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v5.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	1.625 mg/m³
Risk Characterization Ratio (RCR)	0.677083
Assessment method	Qualitative assessment
	Worker - dermal
Additional good practice advice	
Local exhaust ventilation and / or general ventilation are / is advisable.	
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC8a: Transfer of substance or mixture (charging and discharging) at non-dedicated facilities Use domain: industrial
Operational conditions	
Concentration of the substance	acrylic acid, monoester with propane-1,2-diol Content: >= 0 % - <= 100 %

Physical state	liquid
Vapour pressure of the substance during use	1 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Provide a good standard of general or controlled ventilation (5 to 10 air changes per hour)	Effectiveness: 70 %
Wear suitable respiratory protection.	Effectiveness: 90 %
Avoid skin contact. Ensure doors and windows are opened (general ventilation).	
Use suitable eye protection.	
Avoid contact with contaminated tools. Avoid skin contact. Clean up contamination as soon as they occur. Wash off any skin contamination immediately.	
Change gloves, if duration of activity exceeds break through time, Wear chemically resistant gloves in combination with 'basic' employee training.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v5.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	1.625 mg/m³
Risk Characterization Ratio (RCR)	0.677083
Assessment method	Qualitative assessment
	Worker - dermal
Additional good practice advice	
Local exhaust ventilation and / or general ventilation are / is advisable.	
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC8b: Transfer of substance or mixture (charging and discharging) at dedicated facilities Use domain: industrial
Operational conditions	
Concentration of the substance	acrylic acid, monoester with propane-1,2-diol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	1 Pa

Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Local exhaust ventilation	Effectiveness: 95 %
Avoid skin contact. Ensure doors and windows are opened (general ventilation).	
Use suitable eye protection.	
Avoid contact with contaminated tools. Avoid skin contact. Clean up contamination as soon as they occur. Wash off any skin contamination immediately.	
Change gloves, if duration of activity exceeds break through time, Wear chemically resistant gloves in combination with 'basic' employee training.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v5.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	1.3542 mg/m³
Risk Characterization Ratio (RCR)	0.564236
Assessment method	Qualitative assessment
	Worker - dermal
Additional good practice advice	
Local exhaust ventilation and / or general ventilation are / is advisable.	
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Use descriptors covered	PROC9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing). Use domain: industrial
Operational conditions	
Concentration of the substance	acrylic acid, monoester with propane-1,2-diol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	1 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Local exhaust ventilation	Effectiveness: 90 %

Provide a good standard of general or controlled ventilation (5 to 10 air changes per hour)	Effectiveness: 70 %
Avoid skin contact. Ensure doors and windows are opened (general ventilation).	
Use suitable eye protection.	
Avoid contact with contaminated tools. Avoid skin contact. Clean up contamination as soon as they occur. Wash off any skin contamination immediately.	
Change gloves, if duration of activity exceeds break through time, Wear chemically resistant gloves in combination with 'basic' employee training.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v5.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	0.8125 mg/m³
Risk Characterization Ratio (RCR)	0.338542
Assessment method	Qualitative assessment
	Worker - dermal
Additional good practice advice	
Local exhaust ventilation and / or general ventilation are / is advisable.	
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

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3. Short title of exposure scenario

Use as laboratory reagent/agent, (use in industrial settings)
SU8, SU9, SU24; ERC6c; PROC15

Control of exposure and risk management measures

Contributing exposure scenario	
Use descriptors covered	ERC6c: Use of monomer in polymerisation processes at industrial site (inclusion or not into/onto article)
Operational conditions	
Annual amount used in the EU	1,000 kg
Minimum emission days per year	20
Emission factor air	0.01 %
Emission factor water	2 %

Emission factor soil	0.001 %
Receive Surf. Water (Flow Rate).	18,000 m3/d
Dilution factor river	10
Dilution factor coast	100
Risk Management Measures	
Soil treatment measures considered suitable are, e.g.	No application of sludge to soil
Type of STP	Municipal STP
Assumed sewage treatment plant flow (m3/d)	2,000 m3/d
Exposure estimate and reference to its source	
Assessment method	EASY TRA v5.2, ECETOC TRA v3.0, Environment
Risk Characterization Ratio (RCR)	0.141047
	Risk from environmental exposure is driven by freshwater.
Maximum amount of safe use	35.4 kg/d
Risk from environmental exposure is driven by freshwater.	

Contributing exposure scenario	
Use descriptors covered	PROC15: Use a laboratory reagent. Use domain: industrial
Operational conditions	
Concentration of the substance	acrylic acid, monoester with propane-1,2-diol Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	1 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Local exhaust ventilation	Effectiveness: 90 %
Provide a good standard of general or controlled ventilation (5 to 10 air changes per hour)	Effectiveness: 70 %
Avoid skin contact. Ensure doors and windows are opened (general ventilation).	
Use suitable eye protection.	
Avoid contact with contaminated tools. Avoid skin contact. Clean up contamination as soon as they occur. Wash off any skin contamination immediately.	

Change gloves, if duration of activity exceeds break through time, Wear chemically resistant gloves in combination with 'basic' employee training.	
Exposure estimate and reference to its source	
Assessment method	EASY TRA v5.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	0.8125 mg/m³
Risk Characterization Ratio (RCR)	0.338542
Assessment method	Qualitative assessment
	Worker - dermal
Additional good practice advice	
Local exhaust ventilation and / or general ventilation are / is advisable.	
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

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