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Safety data sheet

BASF safety data sheet. This is a translation of the country-specific safety data sheet into a language other than that required by law. This document does not replace the safety data sheet provided according to Regulation (EC) No 1907/2006.
Date / Revised: 18.09.2023 Version: 2.0
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Date / First version: 23.09.2022
Product: **DIMETHYLAMINOETHYL ACRYLATE**
(ID no. 30041959/SDS_GEN_DE/EN)
Date of print 14.10.2025

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

1.1. Product identifier

DIMETHYLAMINOETHYL ACRYLATE

Chemical name: 2-(Dimethylamino)ethyl acrylate
CAS Number: 2439-35-2

REACH registration number: 01-2119451172-49-0000

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

Telephone: +49 621 60-0
E-mail address: global.info@basf.com

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 Regulation (EC) No 1272/2008 [CLP]

Flam. Liq. 3	H226 Flammable liquid and vapour.
Acute Tox. 1 (Inhalation - vapour)	H330 Fatal if inhaled.
Acute Tox. 4 (oral)	H302 Harmful 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 Acute 1	H400 Very toxic to aquatic life.
Aquatic Chronic 3	H412 Harmful to aquatic life with long lasting effects.

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 Regulation (EC) No 1272/2008 [CLP]

Pictogram:

Signal Word:

Danger

Hazard Statement:

H226	Flammable liquid and vapour.
H311	Toxic in contact with skin.
H330	Fatal if inhaled.
H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H314	Causes severe skin burns and eye damage.
H412	Harmful to aquatic life with long lasting effects.
H400	Very toxic to aquatic life.

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.
P260	Do not breathe dust/mist/vapours.
P273	Avoid release to the environment.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P284	In case of inadequate ventilation wear respiratory protection.
P243	Take action to prevent static discharges.
P241	Use explosion-proof electrical, ventilating and lighting equipment.

P272	Contaminated work clothing should not be allowed out of the workplace.
P264	Wash contaminated body parts thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P242	Use non-sparking tools.
P240	Ground and bond container and receiving equipment.

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.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P361 + P364	Take off immediately all contaminated clothing and wash it before reuse.
P301 + P330 + P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P391	Collect spillage.
P370 + P378	In case of fire: Use … to extinguish.

Precautionary Statements (Storage):

P403 + P235	Store in a well-ventilated place. Keep cool.
P233	Keep container tightly closed.
P405	Store locked up.

Precautionary Statements (Disposal):

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

Hazard determining component(s) for labelling: mequinol, 2-(Dimethylamino)ethyl acrylate, 2-dimethylaminoethanol

2.3. Other hazards

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

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

2-(Dimethylamino)ethyl acrylate

CAS Number: 2439-35-2 EC-Number: 219-460-0	Flam. Liq. 3 Acute Tox. 1 (Inhalation - vapour) Acute Tox. 4 (oral) Acute Tox. 3 (dermal) Skin Corr./Irrit. 1B Eye Dam./Irrit. 1 Skin Sens. 1 Aquatic Acute 1 Aquatic Chronic 3 H226, H311, H330, H302, H317, H314, H412, H400

Regulatory relevant ingredients

2-(Dimethylamino)ethyl acrylate

Content (W/W): >= 99 % - <= 100 % CAS Number: 2439-35-2 EC-Number: 219-460-0	Flam. Liq. 3 Acute Tox. 1 (Inhalation - vapour) Acute Tox. 4 (oral) Acute Tox. 3 (dermal) Skin Corr./Irrit. 1B Eye Dam./Irrit. 1 Skin Sens. 1 Aquatic Acute 1 Aquatic Chronic 3 H226, H311, H330, H302, H317, H314, H412, H400

mequinol

Content (W/W): >= 0,07 % - <= 0,295 % CAS Number: 150-76-5 EC-Number: 205-769-8 INDEX-Number: 604-044-00-7	Acute Tox. 4 (oral) Eye Dam./Irrit. 2 Skin Sens. 1 Aquatic Chronic 3 H319, H302, H317, H412

2-dimethylaminoethanol

Content (W/W): >= 0 % - <= 0,1 %	Flam. Liq. 3
CAS Number: 108-01-0	Acute Tox. 3 (Inhalation - vapour)
EC-Number: 203-542-8	Acute Tox. 4 (oral)
INDEX-Number: 603-047-00-0	Acute Tox. 4 (dermal)
	Skin Corr./Irrit. 1B
	Eye Dam./Irrit. 1
	STOT SE 3 (irr. to respiratory syst.)
	H226, H331, H335, H314, H302 + H312
	Specific concentration limit:
	STOT SE 3, irr. to respiratory syst.: >= 5 %

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. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Immediately remove contaminated 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 plenty of water, apply sterile dressings, consult a skin specialist.

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

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.

Hazards: 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. (Further) symptoms and / or effects are not known so far

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: The product is combustible. See SDS section 7 - Handling and storage.

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

Handle in accordance with good industrial hygiene and safety practice.

Avoid all sources of ignition: heat, sparks, open flame. Use antistatic tools. Avoid contact with the skin, eyes and clothing.

Take off immediately all contaminated clothing.

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.

The temperatures which must be avoided are to be considered. Protect against heat. Protect from direct sunlight. Protect contents from the effects of light. Do not open warm or swollen product containers. Remove persons to safety and alert fire brigade.

Ensure adequate inhibitor and dissolved oxygen level.

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. 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.

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. 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.
Even if the product is stored and handled as prescribed/indicated it should be used up within the indicated duration of storage.

Storage class according to TRGS 510 (originally VCI, Germany): (3) Flammable liquids

Storage stability:
Storage temperature: < 25 °C
Storage duration: 6 Months
Storage temperature: 40 °C
Storage duration: 0,5 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.

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
No substance specific occupational exposure limits known.

PNEC
freshwater: 0,005 mg/l

marine water: 0,0005 mg/l

intermittent release: 0,0088 mg/l

STP: 210 mg/l

sediment (freshwater): 3,31 mg/kg

sediment (marine water): 0,331 mg/kg

soil: 0,657 mg/kg

DNEL
worker:
Long-term exposure- systemic effects, Inhalation: 0,9 mg/m3

worker:
Short-term exposure - systemic effects, Inhalation: 4,5 mg/m3

8.2. Exposure controls

Appropriate engineering controls
Provide local exhaust ventilation to maintain recommended P.E.L.

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):
butyl rubber (butyl) - 0.7 mm coating thickness
Manufacturer's directions for use should be observed because of great diversity of types.
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.

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

State of matter:	liquid
Form:	liquid
Colour:	yellowish clear
Odour:	amine-like
Odour threshold:	
	not determined
Melting point:	< -61 °C
	Literature data.

Boiling point:	172,8 °C (1.013,25 hPa) Extrapolated value	(measured)
Flammability:	Flammable.	
Lower explosion limit:	0,6 %(V) (45 °C) For liquids not relevant for classification and labelling.	
Upper explosion limit:	5,5 %(V) (88 °C) For liquids not relevant for classification and labelling.	
Flash point:	58 °C	(DIN 51755, closed cup)
Auto-ignition temperature:	195 °C	(DIN 51794)
Thermal decomposition:	No decomposition if stored and handled as prescribed/indicated.	
SADT:	Not a substance/mixture liable to self-decomposition according to GHS.	
pH value:	10,0 (143 g/l, 20 °C)	
Viscosity, kinematic:	1,43 mm2/s (20 °C) 1,04 mm2/s (40 °C)	(OECD 114) (OECD 114)
Viscosity, dynamic:	1,34 mPa.s (20 °C) 0,96 mPa.s (40 °C)	(calculated (from kinematic viscosity)) (calculated (from kinematic viscosity))
Thixotropy:	not thixotropic	
Solubility in water:	hydrolyzes 240 g/l (20 °C)	(calculated)
Solubility (qualitative) solvent(s):	organic solvents miscible	
Partitioning coefficient n-octanol/water (log Kow):	0,68 (25 °C)	(OECD Guideline 107)
Vapour pressure:	1 hPa (19,1 °C) dynamic 8 hPa (50 °C)	(measured)
Relative density:	0,938 (20 °C) Literature data.	
Density:	0,938 g/cm3 (20 °C) Literature data.	

	0,9124 g/cm3 (50 °C)	(OECD Guideline 109)
Relative vapour density (air):	4,93 (20 °C) Heavier than air.	(calculated)

Particle characteristics

Particle size distribution: The substance / product is marketed or used in a non solid or granular form. -

9.2. Other information

Information with regard to physical hazard classes

Explosives

Explosion hazard: Based on the chemical structure there is no indication of explosive properties.

Impact sensitivity:
Based on the chemical structure there is no shock-sensitivity.

Oxidizing properties

Fire promoting properties: Based on its structural properties the product is not classified as oxidizing.

Flammable liquids

Sustained combustibility:
not determined

Pyrophoric properties

Self-ignition temperature: Test type: Spontaneous self-ignition at room-temperature.

not self-igniting

Self-heating substances and mixtures

Self heating ability: Not tested on account of the low melting-point.
It is not a substance capable of spontaneous heating.

Substances and mixtures, which emit flammable gases in contact with water

Formation of flammable gases:
Forms no flammable gases in the presence of water.

Corrosion to metals

Corrosive effects to metal are not anticipated.

Other safety characteristics

pKA:	
	not applicable
Surface tension:	
	Based on chemical structure, surface activity is not to be expected.
Molar mass:	143,19 g/mol
SAPT-Temperature:	
	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.
Evaporation rate:	
	Value can be approximated from Henry's Law Constant or vapor pressure.

SECTION 10: Stability and Reactivity

10.1. Reactivity

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

Corrosion to metals:	Corrosive effects to metal are not anticipated.	
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.

Risk of spontaneous polymerization in the presence of starters for radical chain reactions (e.g. peroxides). Reacts with nitric acid. 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.

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 hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Assessment of acute toxicity:

Of moderate toxicity after single ingestion. Of very high toxicity after short-term inhalation. Of pronounced toxicity after short-term skin contact.

Experimental/calculated data:

LD50 rat (oral): > 455 mg/kg (OECD Guideline 401)
LC50 rat (by inhalation): 0,22 mg/l 4 h (BASF-Test)
LD50 rat (dermal): 419 mg/kg (OECD Guideline 402)

Irritation

Assessment of irritating effects:

Corrosive! Damages skin and eyes.

Experimental/calculated data:

Skin corrosion/irritation

rabbit: Corrosive. (OECD Guideline 404)

Serious eye damage/irritation

rabbit: irreversible damage (Draize test)

Respiratory/Skin sensitization

Assessment of sensitization:

Caused skin sensitization in animal studies.

Experimental/calculated data:

Guinea pig maximization test guinea pig: skin sensitizing (OECD Guideline 406)

Germ cell mutagenicity

Assessment of mutagenicity:

The substance was not mutagenic in bacteria. The substance was mutagenic in various cell culture test systems; however, these results could not be confirmed in tests with mammals.

Carcinogenicity

Assessment of carcinogenicity:
Study does not need to be conducted.

Reproductive toxicity

Assessment of reproduction toxicity:
The results of animal studies gave no indication of a fertility impairing effect. The product has not been fully tested. The statements have been derived in parts from products of a similar structure or composition.

Developmental toxicity

Assessment of teratogenicity:

Animal studies gave no indication of a developmental toxic effect at doses that were not toxic to the parental animals.

Specific target organ toxicity (single exposure)

Assessment of STOT single:
Based on available data, the classification criteria are not met.

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

Assessment of repeated dose toxicity:

After repeated administration the prominent effect is the induction of corrosion.

Aspiration hazard

not applicable

Interactive effects

No data available.

11.2. Information on other hazards

Endocrine disrupting properties

The substance is not identified to have endocrine disrupting properties according to Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 nor is included in the Candidate List of substances of very high concern according to EU REACh Article 59 for having endocrine disrupting properties.

SECTION 12: Ecological Information

12.1. Toxicity

Assessment of aquatic toxicity:
Very toxic (acute effect) to aquatic organisms. Harmful to aquatic organisms based on long-term (chronic) toxicity study data. 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) 8,49 mg/l, Oryzias latipes (OECD 203; ISO 7346; 84/449/EEC, C.1, semistatic)

Aquatic invertebrates:
EC50 (48 h) 9,92 mg/l, Daphnia magna (OECD Guideline 202, part 1, semistatic)

Aquatic plants:
EC50 (72 h) 0,88 mg/l (growth rate), Selenastrum capricornutum (Guideline 92/69/EEC, C.3, static)
The details of the toxic effect relate to the nominal concentration.

Microorganisms/Effect on activated sludge:
EC20 (0,5 h) > 1.000 mg/l, activated sludge (other)

Chronic toxicity to fish:
Study scientifically not justified.

Chronic toxicity to aquatic invertebrates:
No observed effect concentration (21 d) 3 mg/l, Daphnia magna (OECD Guideline 211, semistatic)

Assessment of terrestrial toxicity:
Study scientifically not justified.

12.2. Persistence and degradability

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

Elimination information:
96 % (28 d) (OECD 301 A (old version)) (aerobic, municipal sewage treatment plant effluent)

> 95 % (28 d) (OECD 302B; ISO 9888; 88/302/EEC,part C) (aerobic, activated sludge)

Assessment of stability in water:
In contact with water the substance will hydrolyse rapidly.

12.3. Bioaccumulative potential

Assessment bioaccumulation potential:
No significant accumulation in organisms is expected as a result of the distribution coefficient of n-octanol/water (log Pow).

Bioaccumulation potential:
Accumulation in organisms is not to be expected.

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. Endocrine disrupting properties

The substance is not identified to have endocrine disrupting properties according to Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 nor is included in the Candidate List of substances of very high concern according to EU REACh Article 59 for having endocrine disrupting properties.

12.7. Other adverse effects

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

12.8. Additional information

Other ecotoxicological advice:
Do not discharge product into the environment without control.

SECTION 13: Disposal Considerations

13.1. Waste treatment methods

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

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:	UN3302
UN proper shipping name:	2-DIMETHYLAMINOETHYL ACRYLATE STABILIZED
Transport hazard class(es):	6.1, EHSM
Packing group:	II
Environmental hazards:	yes
Special precautions for user:	Tunnel code: D/E

RID

UN number or ID number:	UN3302
UN proper shipping name:	2-DIMETHYLAMINOETHYL ACRYLATE STABILIZED
Transport hazard class(es):	6.1, EHSM
Packing group:	II
Environmental hazards:	yes
Special precautions for user:	None known

Inland waterway transport
ADN

UN number or ID number:	UN3302
UN proper shipping name:	2-DIMETHYLAMINOETHYL ACRYLATE STABILIZED
Transport hazard class(es):	6.1, EHSM
Packing group:	II
Environmental hazards:	yes
Special precautions for user:	None known

Transport in inland waterway vessel
Not evaluated

Sea transport

IMDG

UN number or ID number:	UN 3302
UN proper shipping name:	2-DIMETHYLAMINOETHYL ACRYLATE STABILIZED
Transport hazard class(es):	6.1, EHSM
Packing group:	II
Environmental hazards:	yes Marine pollutant: YES
Special precautions for user:	EmS: F-A; S-A

Air transport

IATA/ICAO

UN number or ID number:	UN 3302
UN proper shipping name:	2-DIMETHYLAMINOETHYL ACRYLATE STABILIZED
Transport hazard class(es):	6.1
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.

SECTION 15: Regulatory Information

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

Prohibitions, Restrictions and Authorizations

Chemical Prohibition Ordinance (DE): Annex 2
Restriction Type: Restricted substance

Annex XVII of Regulation (EC) No 1907/2006: Number on List: 3, 40, 75

Hazardous Incident Ordinance (Germany):
List entry in regulation: 1.1.1
List entry in regulation: 1.2.5.1
List entry in regulation: 1.2.5.2
List entry in regulation: 1.2.5.3
List entry in regulation: 1.3.1

Directive 2012/18/EU - Control of Major Accident Hazards involving dangerous substances (EU):
List entry in regulation: E1
List entry in regulation: P5a
List entry in regulation: P5b
List entry in regulation: P5c
List entry in regulation: H1

Classification according to 'TA-Luft' (Germany):

5.2.5 class I: Organic gases class I

Water hazard class (§6 AwSV para.4 (Legal binding announcement of the substance in the Federal Gazette)): (2) significantly water polluting. ID-No.: 1760

Regulation on prohibitions and restrictions on the marketing of dangerous substances, preparations and goods in accordance with the chemical law (Germany)
The specifications of the Technical Rule for Hazardous Substances (TRGS) 401 must be observed (TRGS 401: Risks resulting from skin contact - identification, assessment, measures).
German Regulation TA Luft (Technical Instruction on Air Quality Control, i.e. first Directive to the Federal Immission Control Ordinance)
Law on the Protection of Working Youth
The Maternity Protection Act needs to be considered.

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)

Acute Tox. 4 (oral)
Acute Tox. 3 (dermal)
Acute Tox. 1 (Inhalation - vapour)
Skin Corr./Irrit. 1B
Skin Sens. 1
Flam. Liq. 3
Aquatic Acute 1
Aquatic Chronic 3
Eye Dam./Irrit. 1

This product is of industrial quality and unless otherwise specified or agreed intended exclusively for industrial use. Any other intended applications should be discussed with the manufacturer.

Full text of the classifications, including the hazard classes and the hazard statements, if mentioned in section 2 or 3:
Flam. Liq. Flammable liquids

Acute Tox.	Acute toxicity
Skin Corr./Irrit.	Skin corrosion/irritation
Eye Dam./Irrit.	Serious eye damage/eye irritation
Skin Sens.	Skin sensitization
Aquatic Acute	Hazardous to the aquatic environment - acute
Aquatic Chronic	Hazardous to the aquatic environment - chronic
STOT SE	Specific target organ toxicity — single exposure
H226	Flammable liquid and vapour.
H311	Toxic in contact with skin.
H330	Fatal if inhaled.
H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H314	Causes severe skin burns and eye damage.
H412	Harmful to aquatic life with long lasting effects.
H400	Very toxic to aquatic life.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H335	May cause respiratory irritation.
H302 + H312	Harmful if swallowed or in contact with skin.

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

Index

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1. Short title of exposure scenario

Polymer production, Use as Monomer, (use in industrial settings)
IS; SU8, SU9, SU12; ERC6c, ERC6d; 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 per site	800 t	
Minimum emission days per year Continuous	48	
Emission factor air	1 %	
Emission factor water	1 %	
Emission factor soil	0 %	
Receive Surf. Water (Flow Rate).	18.000 m3/d	
Dilution factor river	10	
Dilution factor coast	100	
Other Factors: Environment	Indoor use.	
Risk Management Measures		
	No special measures are required.	
Type of STP		Municipal STP
Assumed sewage treatment plant flow (m3/d)		2.000 m3/d
Exposure estimate and reference to its source		

Risk Characterization Ratio (RCR)	0,199
Maximum amount of safe use	85,4 kg

Contributing exposure scenario		
Use descriptors covered	ERC6d: Use of reactive process regulators in polymerisation processes at industrial site (inclusion or not into/onto article)	
Operational conditions		
Annual amount per site	800 t	
Minimum emission days per year Continuous	48	
Emission factor air	1 %	
Emission factor water	1 %	
Emission factor soil	0 %	
Receive Surf. Water (Flow Rate).	18.000 m3/d	
Dilution factor river	10	
Dilution factor coast	100	
Other Factors: Environment	Indoor use.	
Risk Management Measures		
	No special measures are required.	
Type of STP		Municipal STP
Assumed sewage treatment plant flow (m3/d)		2.000 m3/d
Exposure estimate and reference to its source		
Risk Characterization Ratio (RCR)	0,199	
Maximum amount of safe use	85,4 kg	

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	2-(Dimethylamino)ethyl acrylate Content: >= 0 % - <= 100 %
Physical state	Liquid, low fugacity
Duration and Frequency of activity	480 min 240 days per year

Indoor/Outdoor	Indoor
Exposed skin area	Palm of one hand (240 cm²)
Exposure estimate and reference to its source	
PROC1	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - systemic
Exposure estimate	0,0597 mg/m³
Risk Characterization Ratio (RCR)	0,0663
PROC1	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - systemic
Exposure estimate	0,119 mg/m³
Risk Characterization Ratio (RCR)	0,0265
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	2-(Dimethylamino)ethyl acrylate Content: >= 0 % - <= 100 %
Physical state	Liquid, low fugacity
Duration and Frequency of activity	15 - 60 min 240 days per year
Indoor/Outdoor	Indoor
Exposed skin area	Palm of both hands (480 cm²)
Risk Management Measures	
Provide extract ventilation to points where emissions occur (LEV).	Effectiveness: 90 %
Wear chemically resistant gloves in combination with specific activity training Use suitable eye protection.	Effectiveness: 95 %
In case no suitable local exhaust ventilation is present:, Wear a suitable respiratory protection with adequate effectiveness .	
Exposure estimate and reference to its source	
PROC2	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - systemic
Exposure estimate	0,597 mg/m³
Risk Characterization Ratio (RCR)	0,0663

PROC2	
Assessment method	Qualitative assessment
	Worker - dermal, long-term - local
PROC2	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, short-term - systemic
Exposure estimate	1,193 mg/m³
Risk Characterization Ratio (RCR)	0,0265
PROC2	
Assessment method	Qualitative assessment
	Worker - dermal, short-term - local
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	2-(Dimethylamino)ethyl acrylate Content: >= 0 % - <= 100 %
Physical state	Liquid, low fugacity
Duration and Frequency of activity	15 - 60 min 240 days per year
Indoor/Outdoor	Indoor
Exposed skin area	Palm of one hand (240 cm²)
Risk Management Measures	
Provide extract ventilation to points where emissions occur (LEV).	Effectiveness: 90 %
Wear chemically resistant gloves in combination with specific activity training	Effectiveness: 95 %
Use suitable eye protection.	
Exposure estimate and reference to its source	
PROC3	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - systemic
Exposure estimate	0,358 mg/m³
Risk Characterization Ratio (RCR)	0,398
PROC3	
Assessment method	Qualitative assessment
	Worker - dermal, long-term - local
PROC3	
Assessment method	ECETOC TRA v2.0 Worker

	Worker - inhalation, short-term - systemic
Exposure estimate	1,790 mg/m³
Risk Characterization Ratio (RCR)	0,398
PROC3	
Assessment method	Qualitative assessment
	Worker - dermal, short-term - local
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	2-(Dimethylamino)ethyl acrylate Content: >= 0 % - <= 100 %
Physical state	Liquid, low fugacity
Duration and Frequency of activity	480 min 240 days per year
Indoor/Outdoor	Indoor
Exposed skin area	Palm of one hand (240 cm²)
Risk Management Measures	
Wear chemically resistant gloves in combination with specific activity training Wear suitable respiratory protection.	Effectiveness: 95 %
Use suitable eye protection.	
Exposure estimate and reference to its source	
PROC3	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - systemic
Exposure estimate	0,895 mg/m³
Risk Characterization Ratio (RCR)	0,994
PROC3	
Assessment method	Qualitative assessment
	Worker - dermal, long-term - local
PROC3	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, short-term - systemic
Exposure estimate	1,790 mg/m³
Risk Characterization Ratio (RCR)	0,398
	The short-term exposure value corresponds to the ECETOC TRA initial exposure value multiplied by a factor of 2.

PROC3	
Assessment method	Qualitative assessment
	Worker - dermal, short-term - local
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	2-(Dimethylamino)ethyl acrylate Content: >= 0 % - <= 100 %
Physical state	Liquid, low fugacity
Duration and Frequency of activity	15 - 60 min 44 weeks per year
Indoor/Outdoor	Indoor
Exposed skin area	Palm of both hands (480 cm^2)
Risk Management Measures	
Provide extract ventilation to points where emissions occur (LEV).	Effectiveness: 90 %
Wear chemically resistant gloves in combination with specific activity training Use suitable eye protection.	Effectiveness: 95 %
Exposure estimate and reference to its source	
PROC4	
Assessment method	ECETOC TRA v2.0 Worker; modified version
	Worker - inhalation, long-term - systemic
Exposure estimate	0,597 mg/m^3
Risk Characterization Ratio (RCR)	0,663
PROC4	
Assessment method	Qualitative assessment
	Worker - dermal, long-term - local
PROC4	
Assessment method	ECETOC TRA v2.0 Worker; modified version
	Worker - inhalation, short-term - systemic
Exposure estimate	2,983 mg/m^3
Risk Characterization Ratio (RCR)	0,663
PROC4	
Assessment method	Qualitative assessment
	Worker - dermal, short-term - local
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Operational conditions	
Concentration of the substance	2-(Dimethylamino)ethyl acrylate

	Content: >= 0 % - <= 100 %
Physical state	Liquid, low fugacity
Duration and Frequency of activity	60 - 240 min 44 weeks per year
Indoor/Outdoor	Indoor
Exposed skin area	Palm of both hands (480 cm²)
Risk Management Measures	
Wear suitable respiratory protection. Wear chemically resistant gloves in combination with specific activity training Use suitable eye protection.	Effectiveness: 95 %
Exposure estimate and reference to its source	
PROC4	
Assessment method	ECETOC TRA v2.0 Worker; modified version
	Worker - inhalation, long-term - systemic
Exposure estimate	0,895 mg/m³
Risk Characterization Ratio (RCR)	0,994
PROC4	
Assessment method	Qualitative assessment
	Worker - dermal, long-term - local
PROC4	
Assessment method	ECETOC TRA v2.0 Worker; modified version
	Worker - dermal, short-term - systemic
Exposure estimate	2,983 mg/m³
Risk Characterization Ratio (RCR)	0,663
PROC4	
Assessment method	Qualitative assessment
	Worker - dermal, short-term - local
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	2-(Dimethylamino)ethyl acrylate Content: >= 0 % - <= 100 %
Physical state	Liquid, low fugacity
Duration and Frequency of activity	15 - 60 min 44 weeks per year
Indoor/Outdoor	Indoor
Exposed skin area	Palm of both hands (480 cm²)
Risk Management Measures	
Provide extract ventilation to points where emissions occur (LEV).	Effectiveness: 90 %

Wear chemically resistant gloves in combination with specific activity training Use suitable eye protection.	Effectiveness: 95 %
Exposure estimate and reference to its source	
PROC4	
Assessment method	ECETOC TRA v2.0 Worker; modified version
	Worker - inhalation, long-term - systemic
Exposure estimate	0,597 mg/m³
Risk Characterization Ratio (RCR)	0,663
PROC4	
Assessment method	Qualitative assessment
	Worker - dermal, long-term - local
PROC4	
Assessment method	ECETOC TRA v2.0 Worker; modified version
	Worker - inhalation, short-term - systemic
Exposure estimate	2,983 mg/m³
Risk Characterization Ratio (RCR)	0,663
PROC4	
Assessment method	Qualitative assessment
	Worker - dermal, short-term - local
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	2-(Dimethylamino)ethyl acrylate Content: >= 0 % - <= 100 %
Physical state	Liquid, low fugacity
Duration and Frequency of activity	60 - 240 min 44 weeks per year
Indoor/Outdoor	Indoor
Exposed skin area	Palm of both hands (480 cm²)
Risk Management Measures	
Wear suitable respiratory protection. Wear chemically resistant gloves in combination with specific activity training Use suitable eye protection.	Effectiveness: 95 %
Exposure estimate and reference to its source	
PROC4	
Assessment method	ECETOC TRA v2.0 Worker; modified version
	Worker - inhalation, long-term - systemic
Exposure estimate	0,895 mg/m³
Risk Characterization Ratio (RCR)	0,994
PROC4	

Assessment method	Qualitative assessment
	Worker - dermal, long-term - local
PROC4	
Assessment method	ECETOC TRA v2.0 Worker; modified version
	Worker - dermal, short-term - systemic
Exposure estimate	2,983 mg/m³
Risk Characterization Ratio (RCR)	0,663
PROC4	
Assessment method	Qualitative assessment
	Worker - dermal, short-term - local
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	2-(Dimethylamino)ethyl acrylate Content: >= 0 % - <= 100 %
Physical state	Liquid, low fugacity
Duration and Frequency of activity	480 min 240 days per year
Indoor/Outdoor	Indoor
Exposed skin area	Both hands (960 cm²)
Risk Management Measures	
Wear suitable respiratory protection. Wear chemically resistant gloves in combination with specific activity training	Effectiveness: 90 %
Use suitable eye protection.	
Exposure estimate and reference to its source	
PROC8a	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, long-term - systemic
Exposure estimate	0,597 mg/m³
Risk Characterization Ratio (RCR)	0,663
PROC8a	
Assessment method	Qualitative assessment
	Worker - dermal, long-term - local
PROC8a	
Assessment method	ECETOC TRA v2.0 Worker
	Worker - inhalation, short-term - systemic
Exposure estimate	1,193 mg/m³
Risk Characterization Ratio (RCR)	0,265
PROC8a	

Assessment method	Qualitative assessment
	Worker - dermal, short-term - local
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	2-(Dimethylamino)ethyl acrylate Content: >= 0 % - <= 100 %
Physical state	Liquid, low fugacity
Duration and Frequency of activity	15 - 60 min 240 days per year
Indoor/Outdoor	Indoor
Exposed skin area	Both hands (960 cm²)
Risk Management Measures	
Wear suitable respiratory protection. Wear chemically resistant gloves in combination with specific activity training	Effectiveness: 95 %
Use suitable eye protection.	
Exposure estimate and reference to its source	
PROC8a	
Assessment method	ECETOC TRA v2.0 Worker; modified version
	Worker - inhalation, long-term - systemic
Exposure estimate	0,597 mg/m³
Risk Characterization Ratio (RCR)	0,663
PROC8a	
Assessment method	Qualitative assessment
	Worker - dermal, long-term - local
PROC8a	
Assessment method	ECETOC TRA v2.0 Worker; modified version
	Worker - inhalation, short-term - systemic
Exposure estimate	2,983 mg/m³
Risk Characterization Ratio (RCR)	0,663
PROC8a	
Assessment method	Qualitative assessment
	Worker - dermal, short-term - local
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	2-(Dimethylamino)ethyl acrylate Content: >= 0 % - <= 100 %
Physical state	Liquid, low fugacity
Duration and Frequency of activity	480 min 240 days per year
Indoor/Outdoor	Indoor
Exposed skin area	Palm of both hands (480 cm²)
Risk Management Measures	
Provide extract ventilation to points where emissions occur (LEV).	Effectiveness: 97 %
Wear chemically resistant gloves in combination with specific activity training	
Use suitable eye protection.	
Exposure estimate and reference to its source	
PROC8b	
Assessment method	ECETOC TRA v2.0 Worker; modified version
	Worker - inhalation, long-term - systemic
Exposure estimate	0,895 mg/m³
Risk Characterization Ratio (RCR)	0,994
PROC8b	
Assessment method	Qualitative assessment
	Worker - dermal, long-term - local
PROC8b	
Assessment method	ECETOC TRA v2.0 Worker; modified version
	Worker - inhalation, short-term - systemic
Exposure estimate	1,1790 mg/m³
Risk Characterization Ratio (RCR)	0,398
PROC8b	
Assessment method	Qualitative assessment
	Worker - dermal, short-term - local
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	2-(Dimethylamino)ethyl acrylate Content: >= 0 % - <= 100 %
Physical state	Liquid, low fugacity

Duration and Frequency of activity	60 - 240 min 240 days per year
Indoor/Outdoor	Indoor
Exposed skin area	Palm of both hands (480 cm²)
Risk Management Measures	
Wear suitable respiratory protection. Wear chemically resistant gloves in combination with specific activity training	Effectiveness: 95 %
Use suitable eye protection.	
Exposure estimate and reference to its source	
PROC8b	
Assessment method	ECETOC TRA v2.0 Worker; modified version
	Worker - inhalation, long-term - systemic
Exposure estimate	0,895 mg/m³
Risk Characterization Ratio (RCR)	0,994
PROC8b	
Assessment method	Qualitative assessment
	Worker - dermal, long-term - local
PROC8b	
Assessment method	ECETOC TRA v2.0 Worker; modified version
	Worker - inhalation, short-term - systemic
Exposure estimate	2,983 mg/m³
Risk Characterization Ratio (RCR)	0,663
PROC8b	
Assessment method	Qualitative assessment
	Worker - dermal, short-term - local
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	2-(Dimethylamino)ethyl acrylate Content: >= 0 % - <= 100 %
Physical state	Liquid, low fugacity
Duration and Frequency of activity	15 - 60 min 44 weeks per year
Indoor/Outdoor	Indoor
Exposed skin area	Palm of both hands (480 cm²)
Risk Management Measures	
Provide extract ventilation to points where emissions occur (LEV).	Effectiveness: 90 %
Use suitable eye protection. Wear	Effectiveness: 95 %

chemically resistant gloves in combination with specific activity training	
Exposure estimate and reference to its source	
PROC9	
Assessment method	ECETOC TRA v2.0 Worker; modified version
	Worker - inhalation, long-term - systemic
Exposure estimate	0,895 mg/m³
Risk Characterization Ratio (RCR)	0,994
PROC9	
Assessment method	Qualitative assessment
	Worker - dermal, long-term - local
PROC9	
Assessment method	ECETOC TRA v2.0 Worker; modified version
	Worker - inhalation, short-term - systemic
Exposure estimate	2,983 mg/m³
Risk Characterization Ratio (RCR)	0,663
PROC9	
Assessment method	Qualitative assessment
	Worker - dermal, short-term - local
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	2-(Dimethylamino)ethyl acrylate Content: >= 0 % - <= 100 %
Physical state	Liquid, low fugacity
Duration and Frequency of activity	60 - 240 min 44 weeks per year
Indoor/Outdoor	Indoor
Exposed skin area	Palm of both hands (480 cm²)
Risk Management Measures	
Wear suitable respiratory protection. Wear chemically resistant gloves in combination with specific activity training Use suitable eye protection.	Effectiveness: 95 %
Exposure estimate and reference to its source	
PROC9	
Assessment method	ECETOC TRA v2.0 Worker; modified version
	Worker - inhalation, long-term - systemic
Exposure estimate	0,895 mg/m³
Risk Characterization Ratio (RCR)	0,994

PROC9	
Assessment method	Qualitative assessment
	Worker - dermal, long-term - local
PROC9	
Assessment method	ECETOC TRA v2.0 Worker; modified version
	Worker - inhalation, short-term - systemic
Exposure estimate	2,983 mg/m³
Risk Characterization Ratio (RCR)	0,663
PROC9	
Assessment method	Qualitative assessment
	Worker - dermal, short-term - local
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

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2. Short title of exposure scenario

Use in laboratories, (use in industrial settings)
IS; SU8, SU9, SU24; ERC1; PROC15

Control of exposure and risk management measures

Contributing exposure scenario		
Use descriptors covered	ERC1: Manufacture of the substance	
Operational conditions		
Annual amount per site	10.000.000 kg	
Minimum emission days per year	300	
Emission factor air	0,01 %	
Emission factor water	0,3 %	
Emission factor soil	0,001 %	
Receive Surf. Water (Flow Rate).	18.000 m3/d	
Dilution factor river	10	
Dilution factor coast	100	
Other Factors: Environment	Indoor use.	
Risk Management Measures		
	No special measures are required.	
Type of STP		Municipal STP
Assumed sewage treatment plant flow (m3/d)		2.000 m3/d

Exposure estimate and reference to its source	
Risk Characterization Ratio (RCR)	0,199
Maximum amount of safe use	165,8 kg
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	2-(Dimethylamino)ethyl acrylate Content: >= 0 % - <= 100 %
Physical state	Liquid, low fugacity
Duration and Frequency of activity	> 240 min 240 days per year
Indoor/Outdoor	Indoor
Exposed skin area	Palm of one hand (240 cm²)
Risk Management Measures	
Provide extract ventilation to points where emissions occur (LEV).	Effectiveness: 90 %
Wear suitable respiratory protection. Wear chemically resistant gloves in combination with specific activity training	Effectiveness: 90 %
Use suitable eye protection.	
Exposure estimate and reference to its source	
PROC15	
Assessment method	ECETOC TRA v2.0 Worker; modified version
	Worker - inhalation, short-term - systemic
Exposure estimate	0,298 mg/m³
Risk Characterization Ratio (RCR)	0,331
PROC15	
Assessment method	ECETOC TRA v2.0 Worker; modified version
	Worker - inhalation, short-term - systemic
Exposure estimate	0,597 mg/m³
Risk Characterization Ratio (RCR)	0,133
	The short-term exposure value corresponds to the ECETOC TRA initial exposure value multiplied by a factor of 2.
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

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