

Safety data sheet

Page: 1/41

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: 26.09.2025 Version: 3.0
Date / Previous version: 15.09.2023 Previous version: 2.1

Product: tert-Butyl Acrylate (TBA)

(ID no. 30041990/SDS_GEN_DE/EN)

Date of print 19.10.2025

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

1.1. Product identifier

tert-Butyl Acrylate (TBA)

Chemical name: tert-butyl acrylate INDEX-Number: 607-245-00-8 CAS Number: 1663-39-4

REACH registration number: 01-2119451175-43-0000

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

Relevant identified uses: Monomer. Recommended use: 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
Operating Division Petrochemicals

Telephone: +49 621 60-42151

E-mail address: sds-petrochemicals@basf.com

1.4. Emergency telephone number

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

to Regulation (EC) No 1907/2006.

Date / Revised: 26.09.2025 Version: 3.0 Date / Previous version: 15.09.2023 Previous version: 2.1

Product: tert-Butyl Acrylate (TBA)

(ID no. 30041990/SDS_GEN_DE/EN)

Date of print 19.10.2025

SECTION 2: Hazards Identification

2.1. Classification of the substance or mixture

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

Flam. Liq. 2 H225 Highly flammable liquid and vapour.

Acute Tox. 3 (Inhalation -H331 Toxic if inhaled.

vapour)

Acute Tox. 4 (oral) H302 Harmful if swallowed. Acute Tox. 4 (dermal) H312 Harmful in contact with skin. Skin Irrit. 2 H315 Causes skin irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction. STOT SE 3 H335 May cause respiratory irritation.

H411 Toxic to aquatic life with long lasting effects. Aquatic Chronic 2

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:

H225 Highly flammable liquid and vapour.

H315 Causes skin irritation. Toxic if inhaled. H331

May cause an allergic skin reaction. H317 May cause respiratory irritation. H335

Harmful if swallowed or in contact with skin. H302 + H312 Toxic to aquatic life with long lasting effects. H411

Precautionary Statements (Prevention):

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves and eye protection or face protection. P210 Keep away from heat, hot surfaces, sparks, open flames and other

ignition sources. No smoking.

Precautionary Statements (Response):

Call a POISON CENTER or physician.

Precautionary Statements (Storage):

P403 + P235 Store in a well-ventilated place. Keep cool.

Precautionary Statements (Disposal):

P501 Dispose of contents and container to hazardous or special waste

collection point.

to Regulation (EC) No 1907/2006. Date / Revised: 26.09.2025

Version: 3.0 Previous version: 2.1

Date / Previous version: 15.09.2023 Product: **tert-Butyl Acrylate (TBA)**

(ID no. 30041990/SDS_GEN_DE/EN)

Date of print 19.10.2025

Hazard determining component(s) for labelling: tert-butyl acrylate, acrylic acid

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. The product does not fulfill the criteria for PBT (Persistent/bioaccumulative/toxic) and vPvB (very persistent/very bioaccumulative).

Skin resorption hazard.

SECTION 3: Composition/Information on Ingredients

3.1. Substances

Chemical nature

tert-butyl acrylate

CAS Number: 1663-39-4 EC-Number: 216-768-7 INDEX-Number: 607-245-00-8 Flam. Liq. 2

Acute Tox. 3 (Inhalation - vapour)

Acute Tox. 4 (oral) Acute Tox. 4 (dermal)

Skin Irrit. 2 Skin Sens. 1

STOT SE 3 (irr. to respiratory syst.)

Aquatic Chronic 2

H225, H315, H331, H317, H335, H302 + H312,

H411

Regulatory relevant ingredients

tert-butyl acrylate

to Regulation (EC) No 1907/2006.

Date / Revised: 26.09.2025 Version: 3.0 Date / Previous version: 15.09.2023 Previous version: 2.1

Product: tert-Butyl Acrylate (TBA)

(ID no. 30041990/SDS_GEN_DE/EN)

Date of print 19.10.2025

Content (W/W): >= 99 % - <= 100 Flam. Liq. 2

Acute Tox. 3 (Inhalation - vapour)

Acute Tox. 4 (oral) CAS Number: 1663-39-4 Acute Tox. 4 (dermal) EC-Number: 216-768-7

INDEX-Number: 607-245-00-8 Skin Irrit. 2 Skin Sens. 1

STOT SE 3 (irr. to respiratory syst.)

Aquatic Chronic 2

H225, H315, H331, H317, H335, H302 + H312,

H411

acrylic acid

Content (W/W): <= 0,2 % Acute Tox. 4 (Inhalation - vapour)

CAS Number: 79-10-7 Acute Tox. 4 (oral) EC-Number: 201-177-9 Aquatic Chronic 2 INDEX-Number: 607-061-00-8 Aquatic Acute 1 Acute Tox. 4 (dermal)

Substance with EU occupational Flam. Liq. 3

exposure limit Eve Dam. 1

Skin Corr. 1A M-factor acute: 1

H226, H314, H302 + H312 + H332, H411, H400

Specific concentration limit:

STOT SE 3, irr. to respiratory syst.: 1 - < 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.

On skin contact:

Immediately wash thoroughly with soap and water, seek medical attention.

On contact with eyes:

to Regulation (EC) No 1907/2006.

Date / Revised: 26.09.2025 Version: 3.0
Date / Previous version: 15.09.2023 Previous version: 2.1

Product: tert-Butyl Acrylate (TBA)

(ID no. 30041990/SDS_GEN_DE/EN)

Date of print 19.10.2025

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.

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: Flammable. 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.

to Regulation (EC) No 1907/2006. Date / Revised: 26.09.2025

Version: 3.0 Previous version: 2.1

Date / Previous version: 15.09.2023 Product: **tert-Butyl Acrylate (TBA)**

(ID no. 30041990/SDS_GEN_DE/EN)

Date of print 19.10.2025

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.

6.2. Environmental precautions

Discharge into the environment must be avoided. Collect contaminated washing water for appropriate disposal.

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.

Date / Revised: 26.09.2025 Version: 3.0
Date / Previous version: 15.09.2023 Previous version: 2.1

Product: tert-Butyl Acrylate (TBA)

(ID no. 30041990/SDS_GEN_DE/EN)

Date of print 19.10.2025

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.

Temperature class: T2 (Autoignition temperature >300 °C).

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: < 35 °C Storage duration: 12 Months

The stated storage temperature should be noted.

Avoid prolonged storage.

Date / Revised: 26.09.2025 Version: 3.0
Date / Previous version: 15.09.2023 Previous version: 2.1

Product: tert-Butyl Acrylate (TBA)

(ID no. 30041990/SDS_GEN_DE/EN)

Date of print 19.10.2025

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

The surveillance of the workplace by exposure measurements may be necessary, in order to prove the efficiency of safety measures, for example ventilation or the need of respiratory protection. Since this requires a specific competency, only accredited laboratories should be contracted. Regarding suitable methods to assess inhalation exposure, the European Standards EN 482, 689 and 14042 are to be considered. In addition, the TRGS 402 has to be observed in Germany.

79-10-7: acrylic acid

Short Term Exposure Classification: (TRGS 900 (DE))

Category I: Substances for which the localized effect has an assigned exposure limit or for substances with a sensitizing effect in respiratory passages

STEL value 59 mg/m3; 20 ppm (OEL (EU))

indicative

TWA value 29 mg/m3; 10 ppm (OEL (EU))

indicative

OEL 30 mg/m3; 10 ppm (TRGS 900 (DE))

Ceiling limit value/factor: 2

If the occupational exposure limit value (AGW) and the biological limit value (BGW) are complied with, there should be no risk of damage for the unborn child (see TRGS 900, Number 2.7)

Short Term Exposure Factor: (TRGS 900 (DE))

Ceiling limit value/factor: 1

Substance listed with exceeding factor and category of short time value.

Skin Designation (TRGS 900 (DE))

The substance can be absorbed through the skin.

to Regulation (EC) No 1907/2006.

Date / Revised: 26.09.2025 Version: 3.0
Date / Previous version: 15.09.2023 Previous version: 2.1

Product: tert-Butyl Acrylate (TBA)

(ID no. 30041990/SDS_GEN_DE/EN)

Date of print 19.10.2025

PNEC

freshwater: 0,00237 mg/l

marine water: 0,000237 mg/l

STP: 3,05 mg/l

sediment (freshwater): 0,0415 mg/kg

sediment (marine water): 0,00415 mg/kg

soil: 0,00688 mg/kg

DNEL

worker:

Long-term exposure - local effects, Inhalation: 11 mg/m3

worker:

Long-term exposure- systemic effects, Inhalation: 16,0 mg/m3

consumer:

Long-term exposure- systemic effects, Inhalation: 8,0 mg/m3

consumer:

Long-term exposure - local effects, Inhalation: 1,27 mg/m3

8.2. Exposure controls

Appropriate engineering controls

Ensure adequate ventilation.

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

Eye protection:

Safety glasses with side-shields (frame goggles) (e.g. EN 166)

Date / Revised: 26.09.2025 Version: 3.0
Date / Previous version: 15.09.2023 Previous version: 2.1

Product: tert-Butyl Acrylate (TBA)

(ID no. 30041990/SDS_GEN_DE/EN)

Date of print 19.10.2025

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 contact with skin. Avoid inhalation of vapour. 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: colourless
Odour: ester-like

Odour threshold:

Freezing point:

not determined approx. -69 °C

Literature data.

Boiling point: 119,2 °C

(1.013 hPa)

Flammability: Highly flammable. (derived from flash - and boiling

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.

0,7 %(V) (7,5 °C)

Upper explosion limit:

For liquids not relevant for classification and labelling.

7 %(V) (46 °C)

Flash point: 14 °C (DIN 51755, closed cup)

Auto-ignition temperature: 400 °C

Literature data.

Thermal decomposition: No decomposition if stored and handled as prescribed/indicated.

Date / Revised: 26.09.2025 Version: 3.0

Date / Previous version: 15.09.2023 Previous version: 2.1

Product: tert-Butyl Acrylate (TBA)

(ID no. 30041990/SDS_GEN_DE/EN)

Date of print 19.10.2025

SADT: Not a substance/mixture liable to self-decomposition according to

GHS.

pH value:

not applicable

Viscosity, kinematic:

(20 °C)

not determined

Viscosity, dynamic: approx. 0,5 - 1,0 mPa.s

(20 °C)

By analogy with a product of similar

composition

Thixotropy: not thixotropic

Solubility in water:

approx. 2 g/l (25 °C)

Solubility (qualitative) solvent(s): organic solvents

miscible

Partitioning coefficient n-octanol/water (log Kow): 2,32 (OECD Guideline 107)

(25 °C)

Vapour pressure: 20 hPa (measured)

(23,4 °C) 84,7 hPa (50 °C)

Relative density:

0,88 (20 °C)

Density: 0,88 g/cm3 (pyknometer)

(20 °C)

Relative vapour density (air):4,41 (calculated)

(20 °C)

Heavier than air.

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.

Pyrophoric properties

Self-ignition temperature: Test type: Spontaneous self-

ignition at room-temperature.

Date / Revised: 26.09.2025 Version: 3.0
Date / Previous version: 15.09.2023 Previous version: 2.1

Product: tert-Butyl Acrylate (TBA)

(ID no. 30041990/SDS_GEN_DE/EN)

Date of print 19.10.2025

Based on its structural properties the product is not classified as self-

igniting.

Self-heating substances and mixtures

Self heating ability: It is not a substance capable of

spontaneous heating.

Not tested on account of the low

melting-point.

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

No corrosive effect on metal.

Other safety characteristics

pKA:

The substance does not dissociate.,

Study scientifically not justified.

Adsorption/water - soil: KOC: 26,14; log KOC: 1,42 (calculated)

Adsorption to solid soil phase is not

expected.

Surface tension:

Based on chemical structure, surface

activity is not to be expected.

Molar mass: 128,17 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: No corrosive effect on metal.

Formation of Remarks: Forms no flammable gases in the

flammable gases: presence of water.

to Regulation (EC) No 1907/2006.

Date / Revised: 26.09.2025

Version: 3.0 Previous version: 2.1

Date / Previous version: 15.09.2023 Product: **tert-Butyl Acrylate (TBA)**

(ID no. 30041990/SDS_GEN_DE/EN)

Date of print 19.10.2025

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 lnert gas

to Regulation (EC) No 1907/2006.

Date / Revised: 26.09.2025 Version: 3.0 Date / Previous version: 15.09.2023 Previous version: 2.1

Product: tert-Butyl Acrylate (TBA)

(ID no. 30041990/SDS_GEN_DE/EN)

Date of print 19.10.2025

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

Experimental/calculated data:

LD50 rat (oral): approx. 1.047 mg/kg (BASF-Test) LC50 rat (by inhalation): 7 mg/l 4 h (BASF-Test)

The vapour was tested.

LD50 rabbit (dermal): 2.000 mg/kg (BASF-Test)

Irritation

Assessment of irritating effects:

Skin contact causes irritation. Not irritating to the eyes.

Experimental/calculated data:

Skin corrosion/irritation

rabbit: Irritant. (BASF-Test) Serious eye damage/irritation rabbit: non-irritant (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 (OECD Guideline 429)

Germ cell mutagenicity

Assessment of mutagenicity:

The substance was not mutagenic in bacteria. The substance was not mutagenic in mammalian cell culture. The substance was not mutagenic in a test with mammals.

Carcinogenicity

Assessment of carcinogenicity:

In long-term animal studies in which the substance was given by inhalation, a carcinogenic effect was not observed. The substance showed no carcinogenic activity in animals after chronic

Version: 3.0

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: 26.09.2025

Date / Previous version: 15.09.2023 Product: **tert-Butyl Acrylate (TBA)**

(ID no. 30041990/SDS_GEN_DE/EN)

Date of print 19.10.2025

Previous version: 2.1

administration to the skin. 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:

Animal studies gave no indication of a fertility impairing effect at doses which were not toxic to the parental animals. The chemical structure does not suggest a specific alert for such an effect. The results were determined in a Screening test (OECD 421/422).

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. The chemical structure does not suggest a specific alert for such an effect. The results were determined in a Screening test (OECD 421/422).

Specific target organ toxicity (single exposure)

Assessment of STOT single:

Causes temporary irritation of the respiratory tract.

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

Assessment of repeated dose toxicity:

The substance may cause damage to the olfactory epithelium after repeated inhalation.

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:

Date / Revised: 26.09.2025 Version: 3.0
Date / Previous version: 15.09.2023 Previous version: 2.1

Product: tert-Butyl Acrylate (TBA)

(ID no. 30041990/SDS_GEN_DE/EN)

Date of print 19.10.2025

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) 2,37 mg/l, Leuciscus idus (DIN 38412 Part 15, static)

Aquatic invertebrates:

EC50 (48 h) 8,74 mg/l, Daphnia magna (OECD Guideline 202, part 1, static)

The statement of the toxic effect relates to the analytically determined concentration. The product is highly volatile. Tested in a closed test system.

Aquatic plants:

EC50 (72 h) 14,6 mg/l (growth rate), Desmodesmus subspicatus (OECD Guideline 201, static) The product is highly volatile. Tested in a closed test system. The statement of the toxic effect relates to the analytically determined concentration.

Microorganisms/Effect on activated sludge:

EC20 (0,5 h) approx. 950 mg/l, activated sludge, domestic (OECD Guideline 209, aquatic) Nominal concentration.

Chronic toxicity to fish:

Study scientifically not justified.

Chronic toxicity to aquatic invertebrates:

No observed effect concentration (21 d) 0,136 mg/l, Daphnia magna (OECD Guideline 211, semistatic)

The statement of the toxic effect relates to the analytically determined concentration. The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

No observed effect concentration (21 d) 0,19 mg/l, Daphnia magna (Flow through.)

The statement of the toxic effect relates to the analytically determined concentration. 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 toxic effects have been observed in studies with soil living organisms.

Study scientifically not justified.

Soil living organisms:

EC50 (28 d) > 1.000 mg/kg, soil dwelling microorganisms (OECD Guideline 217)

Terrestrial plants:

No data available.

Other terrestrial non-mammals:

No data available.

Date / Revised: 26.09.2025 Version: 3.0
Date / Previous version: 15.09.2023 Previous version: 2.1

Product: tert-Butyl Acrylate (TBA)

(ID no. 30041990/SDS_GEN_DE/EN)

Date of print 19.10.2025

12.2. Persistence and degradability

Assessment biodegradation and elimination (H2O):

Moderately/partially biodegradable. Not readily biodegradable (by OECD criteria).

Elimination information:

50 - 60 % CO2 formation relative to the theoretical value (28 d) (ISO 14593) (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} > 365 d (25 °C, pH value7), (calculated, pH 7) In contact with water the substance will hydrolyse slowly.

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:

Because of the n-octanol/water distribution coefficient (log Pow) 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.

to Regulation (EC) No 1907/2006.

Date / Revised: 26.09.2025 Version: 3.0
Date / Previous version: 15.09.2023 Previous version: 2.1

Product: tert-Butyl Acrylate (TBA)

(ID no. 30041990/SDS_GEN_DE/EN)

Date of print 19.10.2025

12.7. Other adverse effects

The substance is not listed in Regulation (EU) 2024/590 on substances that deplete the ozone layer.

Results of PMT and vPvM assessment

Substance is not included in the list established in accordance with Article 59(1) of Regulation (EC) No 1907/2006 for having PMT/vPvM properties.

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: UN1992

UN proper shipping name: FLAMMABLE LIQUID, TOXIC, N.O.S. (TERT-BUTYLACRYLATE,

STABILIZED)

Transport hazard class(es): 3, 6.1, EHSM

Packing group: II Environmental hazards: yes

Special precautions for Tunnel code: D/E

user:

RID

UN number or ID number: UN1992

UN proper shipping name: FLAMMABLE LIQUID, TOXIC, N.O.S. (TERT-BUTYLACRYLATE,

STABILIZED)

Transport hazard class(es): 3, 6.1, EHSM

Packing group: II Environmental hazards: yes

Special precautions for None known

user:

to Regulation (EC) No 1907/2006.

Date / Revised: 26.09.2025 Version: 3.0 Date / Previous version: 15.09.2023 Previous version: 2.1

Product: tert-Butyl Acrylate (TBA)

(ID no. 30041990/SDS_GEN_DE/EN)

Date of print 19.10.2025

Inland waterway transport

ADN

UN number or ID number: UN1992

UN proper shipping name: FLAMMABLE LIQUID, TOXIC, N.O.S. (TERT-BUTYLACRYLATE,

STABILIZED)

Transport hazard class(es): 3, 6.1, EHSM

Packing group: II Environmental hazards: yes

Special precautions for N

None known

user:

Transport in inland waterway vessel

Not evaluated

Sea transport

IMDG

UN number or ID number: UN 1992

UN proper shipping name: FLAMMABLE LIQUID, TOXIC, N.O.S. (TERT-BUTYLACRYLATE,

STABILIZED)

Transport hazard class(es): 3, 6.1, EHSM

Packing group: II Environmental hazards: yes

Marine pollutant: YES

Special precautions for

user:

EmS: F-E; S-D

Air transport

IATA/ICAO

UN number or ID number: UN 1992

UN proper shipping name: FLAMMABLE LIQUID, TOXIC, N.O.S. (TERT-BUTYLACRYLATE,

STABILIZED)

Transport hazard class(es): 3, 6.1

Packing group:

Environmental hazards: No Mark as dangerous for the environment is needed

Special precautions for None known

user:

14.1. UN number or ID number

Date / Revised: 26.09.2025 Version: 3.0
Date / Previous version: 15.09.2023 Previous version: 2.1

Product: tert-Butyl Acrylate (TBA)

(ID no. 30041990/SDS_GEN_DE/EN)

Date of print 19.10.2025

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: 40, 3, 75, 3, 40, 75

Hazardous Incident Ordinance (Germany):

List entry in regulation: 2.15

Classification applies for standard conditions of temperature and pressure.

Directive 2012/18/EU - Control of Major Accident Hazards involving dangerous substances (EU):

List entry in regulation: 43

Classification applies for standard conditions of temperature and pressure.

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

Date / Revised: 26.09.2025 Version: 3.0
Date / Previous version: 15.09.2023 Previous version: 2.1

Product: tert-Butyl Acrylate (TBA)

(ID no. 30041990/SDS_GEN_DE/EN)

Date of print 19.10.2025

5.2.5 class I: Organic gases class I

0,20 %

acrylic acid

Water hazard class (§6 AwSV para.4 (Legal binding announcement of the substance in the Federal Gazette)): (2) significantly water polluting. ID-No.: 8360

Law on the Protection of Working Youth

The Maternity Protection Act needs to be considered.

The specifications of the Technical Rule for Hazardous Substances (TRGS) 401 must be observed (TRGS 401: Risks resulting from skin contact - identification, assessment, measures).

Regulation on prohibitions and restrictions on the marketing of dangerous substances, preparations and goods in accordance with the chemical law (Germany)

German Regulation TA Luft (Technical Instruction on Air Quality Control, i.e. first Directive to the Federal Immission Control Ordinance)

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)

Flam. Liq. 2 Aquatic Acute 2 Aquatic Chronic 2 Acute Tox. 4 (oral) Acute Tox. 4 (dermal)

Acute Tox. 3 (Inhalation - vapour)

Skin Sens. 1

STOT SE 3 (irritating to respiratory system)

Skin Irrit. 2

Acrylic esters: 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:

Flam. Liq. Flammable liquids
Acute Tox. Acute toxicity
Skin Irrit. Skin irritation
Skin Sens. Skin sensitization

STOT SE Specific target organ toxicity — single exposure
Aquatic Chronic Hazardous to the aquatic environment - acute
Hazardous to the aquatic environment - acute

Eye Dam. Serious eye damage Skin Corr. Skin corrosion

Date / Revised: 26.09.2025 Version: 3.0
Date / Previous version: 15.09.2023 Previous version: 2.1

Product: tert-Butyl Acrylate (TBA)

(ID no. 30041990/SDS_GEN_DE/EN)

Date of print 19.10.2025

H225	Highly flammable liquid and vapour.
H315	Causes skin irritation.
H331	Toxic if inhaled.
H317	May cause an allergic skin reaction.
H335	May cause respiratory irritation.
H302 + H312	Harmful if swallowed or in contact with skin.
H411	Toxic to aquatic life with long lasting effects.
H226	Flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
H302 + H312 + H332	Harmful if swallowed, in contact with skin or if inhaled.
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.

Vertical lines in the left hand margin indicate an amendment from the previous version.

to Regulation (EC) No 1907/2006.

Date / Revised: 26.09.2025 Version: 3.0 Date / Previous version: 15.09.2023 Previous version: 2.1

Product: tert-Butyl Acrylate (TBA)

(ID no. 30041990/SDS_GEN_DE/EN)

Date of print 19.10.2025

Annex: Exposure Scenarios

Index

1. Polymer production

ERC6c; PROC1, PROC2, PROC3, PROC4, PROC5, PROC8a, PROC8b, PROC9

2. Use as laboratory reagent/agent

ERC1; PROC15

* * * * * * * * * * * * * * * *

1. Short title of exposure scenario

Polymer production

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 industrial site (inclusion or	n polymerisation processes at not into/onto article)
Operational conditions		
Annual amount used in the EU	10.000.000 kg	
Minimum emission days per year	20	
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 sui	table are, e.g.	No application of sludge to soil
Type of STP		Municipal STP
Assumed sewage treatment plant flow (, ,	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)	0,430485	
	Risk from environmental ex	rposure is driven by freshwater.
Maximum amount of safe use	116.148	

Date / Revised: 26.09.2025 Version: 3.0
Date / Previous version: 15.09.2023 Previous version: 2.1

Product: tert-Butyl Acrylate (TBA)

(ID no. 30041990/SDS_GEN_DE/EN)

	kg/d
Risk from environmental exposure is dri	ven 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	tert-butyl acrylate Content: >= 0 % - <= 100 %	
Physical state	liquid	
Vapour pressure of the substance during use	2000 Pa	
Duration and Frequency of activity	480 min 5 days per week	
Indoor/Outdoor	Indoor	
	Assumes activities are at ambient temperature.	
Risk Management Measures		
Drain down and flush system prior to equipment break-in or maintenance. Regular inspection and maintenance of equipment and machines. Wash off any skin contamination immediately. Avoid frequent and direct contact with substance. Avoid skin contact. Provide basic employee training to prevent/minimize exposures. Handle in accordance with good industrial hygiene and safety practice. Avoid inhalation of the product., Wear suitable personal protective equipment. Use suitable eye protection.		
Avoid skin contact. Clean up contamination as soon as they occur. Wash off any skin contamination immediately. Hand protection: Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374): butyl rubber (butyl) - 0.7 mm coating thickness; nitrile rubber (NBR) - 0.4 mm coating thickness. Use suitable chemically resistant		

to Regulation (EC) No 1907/2006.

Date / Revised: 26.09.2025 Version: 3.0 Date / Previous version: 15.09.2023 Previous version: 2.1

Product: tert-Butyl Acrylate (TBA)

(ID no. 30041990/SDS_GEN_DE/EN)

gloves., Wear suitable working clothes., Change gloves, if duration of activity exceeds break through time, Wear chemically resistant gloves in combination with 'basic' employee training., Wear suitable personal protective equipment.			
Exposure estimate and reference to	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	0,0534 mg/m ³		
Risk Characterization Ratio (RCR)	0,004855		
Assessment method	Qualitative assessment		
	Worker - dermal		
Guidance to Downstream Users			
For scaling see: http://www.ecetoc.org/t	ra		

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	tert-butyl acrylate Content: >= 0 % - <= 100 %	
Physical state	liquid	
Vapour pressure of the substance during use	2000 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 %	
Drain down and flush system prior to equipment break-in or maintenance. Regular inspection and maintenance of equipment and machines. Wash off any skin contamination immediately. Avoid frequent and direct contact with substance. Avoid skin contact. Provide basic employee training to prevent/minimize exposures. Handle in accordance with good industrial hygiene and safety practice. Avoid inhalation of the product., Wear		
suitable personal protective		

Date / Revised: 26.09.2025

Date / Previous version: 15.09.2023

Version: 3.0

Previous version: 2.1

Product: tert-Butyl Acrylate (TBA)

(ID no. 30041990/SDS_GEN_DE/EN)

equipment.	
Use suitable eye protection.	
Avoid skin contact. Clean up	
contamination as soon as they occur.	
Wash off any skin contamination	
immediately. Hand protection:	
Suitable materials also with	
prolonged, direct contact	
(Recommended: Protective index 6,	
corresponding > 480 minutes of	
permeation time according to EN	
374): butyl rubber (butyl) - 0.7 mm	
coating thickness; nitrile rubber (NBR)	
- 0.4 mm coating thickness.	
Use suitable chemically resistant	
gloves., Wear suitable working	
clothes., Change gloves, if duration of	
activity exceeds break through time,	
Wear chemically resistant gloves in	
combination with 'basic' employee	
training., Wear suitable personal	
protective equipment.	4
Exposure estimate and reference to i	
Assessment method	EASY TRA v5.2, ECETOC TRA v3.0, Worker
Francisco estimants	Worker - inhalation, long-term - local
Exposure estimate	2,6702 mg/m³
Risk Characterization Ratio (RCR)	0,242744
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/t	ra

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	tert-butyl acrylate Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	2000 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.

to Regulation (EC) No 1907/2006.

Date / Revised: 26.09.2025 Version: 3.0 Date / Previous version: 15.09.2023 Previous version: 2.1

Product: tert-Butyl Acrylate (TBA)

(ID no. 30041990/SDS_GEN_DE/EN)

Risk Management Measures	
Wear suitable respiratory protection.	Effectiveness: 90 %
Drain down and flush system prior to	
equipment break-in or maintenance.	
Regular inspection and maintenance	
of equipment and machines. Wash off	
any skin contamination immediately.	
Avoid frequent and direct contact with	
substance. Avoid skin contact.	
Provide basic employee training to	
prevent/minimize exposures. Handle	
in accordance with good industrial	
hygiene and safety practice.	
Avoid inhalation of the product., Wear	
suitable personal protective	
equipment.	
Use suitable eye protection.	
Avoid skin contact. Clean up	
contamination as soon as they occur.	
Hand protection: Suitable materials	
also with prolonged, direct contact	
(Recommended: Protective index 6,	
corresponding > 480 minutes of	
permeation time according to EN	
374): butyl rubber (butyl) - 0.7 mm	
coating thickness; nitrile rubber (NBR)	
- 0.4 mm coating thickness.	
Change gloves, if duration of activity	
exceeds break through time, Wear	
suitable working clothes., Wear	
suitable personal protective	
equipment.	
Exposure estimate and reference to i	
Assessment method	EASY TRA v5.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	2,6702 mg/m³
Risk Characterization Ratio (RCR)	0,242744
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/t	ra

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	tert-butyl acrylate

Date / Revised: 26.09.2025 Version: 3.0
Date / Previous version: 15.09.2023 Previous version: 2.1

Product: tert-Butyl Acrylate (TBA)

(ID no. 30041990/SDS_GEN_DE/EN)

	Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	2000 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 %
Drain down and flush system prior to	
equipment break-in or maintenance.	
Regular inspection and maintenance	
of equipment and machines. Wash off	
any skin contamination immediately.	
Avoid frequent and direct contact with	
substance. Avoid skin contact.	
Provide basic employee training to	
prevent/minimize exposures. Handle	
in accordance with good industrial	
hygiene and safety practice.	
Avoid inhalation of the product., Wear	
suitable personal protective	
equipment.	
Use suitable eye protection.	
Avoid skin contact. Clean up	
contamination as soon as they occur.	
Hand protection: Suitable materials	
also with prolonged, direct contact	
(Recommended: Protective index 6,	
corresponding > 480 minutes of	
permeation time according to EN	
374): butyl rubber (butyl) - 0.7 mm	
coating thickness; nitrile rubber (NBR)	
 - 0.4 mm coating thickness. Change gloves, if duration of activity 	
exceeds break through time, Wear suitable working clothes., Wear	
suitable working clothes., wear	
equipment.	
Exposure estimate and reference to it	its source
Assessment method	EASY TRA v5.2, ECETOC TRA v3.0, Worker
7.00003IIIOIII IIIOIIIOU	Worker - inhalation, long-term - local
Exposure estimate	2,6702 mg/m ³
Risk Characterization Ratio (RCR)	0,242744
Assessment method	Qualitative assessment
Assessment method	Worker - dermal
Guidance to Downstream Users	I WOINEI - UEIIIIAI
	ro
For scaling see: http://www.ecetoc.org/t	ια

to Regulation (EC) No 1907/2006.

Date / Revised: 26.09.2025 Version: 3.0 Date / Previous version: 15.09.2023 Previous version: 2.1

Product: tert-Butyl Acrylate (TBA)

(ID no. 30041990/SDS_GEN_DE/EN)

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	tert-butyl acrylate Content: >= 0 % - <= 100 %	
Physical state	liquid	
Vapour pressure of the substance during use	2000 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 %	
Drain down and flush system prior to equipment break-in or maintenance. Regular inspection and maintenance of equipment and machines. Wash off any skin contamination immediately. Avoid frequent and direct contact with substance. Avoid skin contact. Provide basic employee training to prevent/minimize exposures. Handle in accordance with good industrial hygiene and safety practice. Avoid inhalation of the product., Wear suitable personal protective equipment.		
Use suitable eye protection. Avoid skin contact. Clean up contamination as soon as they occur. Hand protection: Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374): butyl rubber (butyl) - 0.7 mm coating thickness; nitrile rubber (NBR) - 0.4 mm coating thickness. Change gloves, if duration of activity exceeds break through time, Wear suitable working clothes., Wear suitable personal protective		

to Regulation (EC) No 1907/2006.

Date / Revised: 26.09.2025 Version: 3.0 Date / Previous version: 15.09.2023 Previous version: 2.1

Product: tert-Butyl Acrylate (TBA)

(ID no. 30041990/SDS_GEN_DE/EN)

equipment.	
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	5,3404 mg/m³
Risk Characterization Ratio (RCR)	0,485489
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	
Contributing exposure scenario	DDOOR Manufacture on terms 1-121-111-1-1-1
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	
Cperacera certainerie	tert-butyl acrylate
Concentration of the substance	Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	2000 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	·
Wear suitable respiratory protection.	Effectiveness: 90 %
Drain down and flush system prior to equipment break-in or maintenance.	
Regular inspection and maintenance	
of equipment and machines. Wash off	
any skin contamination immediately.	
Avoid frequent and direct contact with	
substance. Avoid skin contact.	
Provide basic employee training to	
prevent/minimize exposures. Handle	
in accordance with good industrial	
hygiene and safety practice.	
Avoid inhalation of the product., Wear	
suitable personal protective	
equipment.	
Use suitable eye protection.	
Avoid skin contact. Clean up contamination as soon as they occur.	
Hand protection: Suitable materials	
Tianu protection. Sultable materials	

to Regulation (EC) No 1907/2006.

Date / Revised: 26.09.2025 Version: 3.0 Date / Previous version: 15.09.2023 Previous version: 2.1

Product: tert-Butyl Acrylate (TBA)

(ID no. 30041990/SDS_GEN_DE/EN)

also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374): butyl rubber (butyl) - 0.7 mm coating thickness; nitrile rubber (NBR) - 0.4 mm coating thickness. Change gloves, if duration of activity	
exceeds break through time, Wear	
suitable working clothes., Wear	
suitable personal protective	
equipment.	
Exposure estimate and reference to	ts source
Assessment method	EASY TRA v5.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	5,3404 mg/m³
Risk Characterization Ratio (RCR)	0,485489
Assessment method	Qualitative assessment
	Worker - dermal
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	tert-butyl acrylate Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	2000 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 %
Wear suitable respiratory protection.	Effectiveness: 90 %
Drain down and flush system prior to equipment break-in or maintenance. Regular inspection and maintenance of equipment and machines. Wash off any skin contamination immediately. Avoid frequent and direct contact with substance. Avoid skin contact.	
Provide basic employee training to	

Date / Revised: 26.09.2025 Version: 3.0
Date / Previous version: 15.09.2023 Previous version: 2.1

Product: tert-Butyl Acrylate (TBA)

(ID no. 30041990/SDS_GEN_DE/EN)

prevent/minimize exposures. Handle	
in accordance with good industrial	
hygiene and safety practice.	
Avoid inhalation of the product., Wear	
suitable personal protective	
equipment.	
Use suitable eye protection.	
Avoid skin contact. Clean up	
contamination as soon as they occur.	
Hand protection: Suitable materials	
also with prolonged, direct contact	
(Recommended: Protective index 6,	
corresponding > 480 minutes of	
permeation time according to EN	
374): butyl rubber (butyl) - 0.7 mm	
coating thickness; nitrile rubber (NBR)	
- 0.4 mm coating thickness.	
Change gloves, if duration of activity	
exceeds break through time, Wear	
suitable working clothes., Wear	
suitable personal protective	
equipment.	4
Exposure estimate and reference to i	
Assessment method	EASY TRA v5.2, ECETOC TRA v3.0, Worker
E	Worker - inhalation, long-term - local
Exposure estimate	1,0681 mg/m³
Risk Characterization Ratio (RCR)	0,097098
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/t	ra

Contributing exposure scenario	
Use descriptors covered	PROC4: Chemical production where opportunity for exposure arises Use domain: industrial
Operational conditions	
Concentration of the substance	tert-butyl acrylate Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	2000 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	

to Regulation (EC) No 1907/2006. Date / Revised: 26.09.2025

Version: 3.0 Previous version: 2.1

Date / Previous version: 15.09.2023 Product: **tert-Butyl Acrylate (TBA)**

(ID no. 30041990/SDS_GEN_DE/EN)

Wear suitable respiratory protection.	Effectiveness: 95 %
Drain down and flush system prior to	
equipment break-in or maintenance.	
Regular inspection and maintenance	
of equipment and machines. Wash off	
any skin contamination immediately.	
Avoid frequent and direct contact with	
substance. Avoid skin contact.	
Provide basic employee training to	
prevent/minimize exposures. Handle	
in accordance with good industrial	
hygiene and safety practice.	
Avoid inhalation of the product., Wear	
suitable personal protective	
equipment.	
Use suitable eye protection.	
Avoid skin contact. Clean up	
contamination as soon as they occur.	
Hand protection: Suitable materials	
also with prolonged, direct contact	
(Recommended: Protective index 6,	
corresponding > 480 minutes of	
permeation time according to EN	
374): butyl rubber (butyl) - 0.7 mm	
coating thickness; nitrile rubber (NBR)	
- 0.4 mm coating thickness.	
Change gloves, if duration of activity	
exceeds break through time, Wear	
suitable working clothes., Wear	
suitable personal protective	
equipment.	
Exposure estimate and reference to i	
Assessment method	EASY TRA v5.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	5,3404 mg/m³
Risk Characterization Ratio (RCR)	0,485489
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/t	ra

Contributing exposure scenario	
Use descriptors covered	PROC5: Mixing or blending in batch processes Use domain: industrial
Operational conditions	
Concentration of the substance	tert-butyl acrylate Content: >= 0 % - <= 100 %
Physical state	liquid

to Regulation (EC) No 1907/2006.

Date / Revised: 26.09.2025 Version: 3.0 Date / Previous version: 15.09.2023 Previous version: 2.1

Product: tert-Butyl Acrylate (TBA)

(ID no. 30041990/SDS_GEN_DE/EN)

Vapour pressure of the substance during use	2000 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 %
Wear suitable respiratory protection.	Effectiveness: 90 %
Drain down and flush system prior to	
equipment break-in or maintenance.	
Regular inspection and maintenance	
of equipment and machines. Wash off	
any skin contamination immediately.	
Avoid frequent and direct contact with	
substance. Avoid skin contact.	
Provide basic employee training to	
prevent/minimize exposures. Handle	
in accordance with good industrial	
hygiene and safety practice.	
Avoid inhalation of the product., Wear	
suitable personal protective	
equipment.	
Use suitable eye protection.	
Avoid skin contact. Clean up	
contamination as soon as they occur.	
Hand protection: Suitable materials	
also with prolonged, direct contact	
(Recommended: Protective index 6,	
corresponding > 480 minutes of	
permeation time according to EN	
374): butyl rubber (butyl) - 0.7 mm	
coating thickness; nitrile rubber (NBR)	
- 0.4 mm coating thickness.	
Change gloves, if duration of activity	
exceeds break through time, Wear	
suitable working clothes., Wear	
suitable personal protective	
equipment.	
Exposure estimate and reference to it	
Assessment method	EASY TRA v5.2, ECETOC TRA v3.0, Worker
E and a self-real	Worker - inhalation, long-term - local
Exposure estimate	2,6702 mg/m ³
Risk Characterization Ratio (RCR)	0,242744
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

to Regulation (EC) No 1907/2006.

Date / Revised: 26.09.2025 Version: 3.0 Date / Previous version: 15.09.2023 Previous version: 2.1

Product: tert-Butyl Acrylate (TBA)

(ID no. 30041990/SDS_GEN_DE/EN)

Contributing exposure scenario	
Use descriptors covered	PROC8a: Transfer of substance or mixture (charging and discharging) at non-dedicated facilities Use domain: industrial
Operational conditions	
	tert-butyl acrylate
Concentration of the substance	Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	2000 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 %
Wear suitable respiratory protection.	Effectiveness: 90 %
Drain down and flush system prior to	
equipment break-in or maintenance.	
Regular inspection and maintenance	
of equipment and machines. Wash off	
any skin contamination immediately.	
Avoid frequent and direct contact with	
substance. Avoid skin contact.	
Provide basic employee training to	
prevent/minimize exposures. Handle	
in accordance with good industrial	
hygiene and safety practice.	
Avoid inhalation of the product., Wear	
suitable personal protective	
equipment.	
Use suitable eye protection.	
Avoid skin contact. Clean up	
contamination as soon as they occur.	
Wash off any skin contamination	
immediately. Hand protection:	
Suitable materials also with	
prolonged, direct contact	
(Recommended: Protective index 6,	
corresponding > 480 minutes of	
permeation time according to EN	
374): butyl rubber (butyl) - 0.7 mm	
coating thickness; nitrile rubber (NBR)	
- 0.4 mm coating thickness.	
Use suitable chemically resistant	
gloves., Wear suitable working	
clothes., Change gloves, if duration of	
activity exceeds break through time,	

to Regulation (EC) No 1907/2006.

Date / Revised: 26.09.2025 Version: 3.0 Date / Previous version: 15.09.2023 Previous version: 2.1

Product: tert-Butyl Acrylate (TBA)

(ID no. 30041990/SDS_GEN_DE/EN)

Wear chemically resistant gloves in combination with 'basic' employee training., Wear suitable personal protective equipment.	
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	2,6702 mg/m³
Risk Characterization Ratio (RCR)	0,242744
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/tra	

Contributing exposure scenario	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	tert-butyl acrylate Content: >= 0 % - <= 100 %	
Physical state	liquid	
Vapour pressure of the substance during use	2000 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 %	
Drain down and flush system prior to equipment break-in or maintenance. Regular inspection and maintenance of equipment and machines. Wash off any skin contamination immediately. Avoid frequent and direct contact with substance. Avoid skin contact. Provide basic employee training to prevent/minimize exposures. Handle in accordance with good industrial hygiene and safety practice. Avoid inhalation of the product., Wear		
suitable personal protective equipment.		
Use suitable eye protection.		
Avoid skin contact. Clean up contamination as soon as they occur.		

to Regulation (EC) No 1907/2006.

Date / Revised: 26.09.2025 Version: 3.0 Date / Previous version: 15.09.2023 Previous version: 2.1

Product: tert-Butyl Acrylate (TBA)

(ID no. 30041990/SDS_GEN_DE/EN)

Hand protection: Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374): butyl rubber (butyl) - 0.7 mm coating thickness; nitrile rubber (NBR) - 0.4 mm coating thickness. Change gloves, if duration of activity exceeds break through time, Wear suitable working clothes., Wear suitable personal protective equipment.	
Exposure estimate and reference to it	ts source
Assessment method	EASY TRA v5.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	6,6755 mg/m ³
Risk Characterization Ratio (RCR)	0,606861
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/t	ra

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	tert-butyl acrylate Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	2000 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor
	Assumes activities are at ambient temperature.
Risk Management Measures	
Wear suitable respiratory protection.	Effectiveness: 95 %
Drain down and flush system prior to	
equipment break-in or maintenance.	
Regular inspection and maintenance	
of equipment and machines. Wash off	
any skin contamination immediately.	
Avoid frequent and direct contact with substance. Avoid skin contact.	
Provide basic employee training to	
i Torido Dasio employee training to	<u> </u>

Date / Revised: 26.09.2025 Version: 3.0
Date / Previous version: 15.09.2023 Previous version: 2.1

Product: tert-Butyl Acrylate (TBA)

(ID no. 30041990/SDS_GEN_DE/EN)

prevent/minimize exposures. Handle	
in accordance with good industrial	
hygiene and safety practice.	
Avoid inhalation of the product., Wear	
suitable personal protective	
equipment.	
Use suitable eye protection.	
Avoid skin contact. Clean up	
contamination as soon as they occur.	
Hand protection: Suitable materials	
also with prolonged, direct contact	
(Recommended: Protective index 6,	
corresponding > 480 minutes of	
permeation time according to EN	
374): butyl rubber (butyl) - 0.7 mm	
coating thickness; nitrile rubber (NBR)	
- 0.4 mm coating thickness.	
Change gloves, if duration of activity	
exceeds break through time, Wear	
suitable working clothes., Wear	
suitable personal protective	
equipment.	
Exposure estimate and reference to i	
Assessment method	EASY TRA v5.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	6,6755 mg/m³
Risk Characterization Ratio (RCR)	0,606861
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/t	ra

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	tert-butyl acrylate Content: >= 0 % - <= 100 %	
Physical state	liquid	
Vapour pressure of the substance during use	2000 Pa	
Duration and Frequency of activity	480 min 5 days per week	
Indoor/Outdoor	Indoor	
	Assumes activities are at ambient temperature.	
Risk Management Measures		

to Regulation (EC) No 1907/2006.

Date / Revised: 26.09.2025 Version: 3.0 Date / Previous version: 15.09.2023 Previous version: 2.1

Product: tert-Butyl Acrylate (TBA)

(ID no. 30041990/SDS_GEN_DE/EN)

Date of print 19.10.2025

Local exhaust ventilation	Effectiveness: 90 %
Wear suitable respiratory protection.	Effectiveness: 90 %
Drain down and flush system prior to	
equipment break-in or maintenance.	
Regular inspection and maintenance	
of equipment and machines. Wash off	
any skin contamination immediately.	
Avoid frequent and direct contact with	
substance. Avoid skin contact.	
Provide basic employee training to	
prevent/minimize exposures. Handle	
in accordance with good industrial	
hygiene and safety practice.	
Avoid inhalation of the product., Wear	
suitable personal protective	
equipment.	
Use suitable eye protection.	
Avoid skin contact. Clean up	
contamination as soon as they occur.	
Hand protection: Suitable materials	
also with prolonged, direct contact	
(Recommended: Protective index 6,	
corresponding > 480 minutes of	
permeation time according to EN	
374): butyl rubber (butyl) - 0.7 mm	
coating thickness; nitrile rubber (NBR)	
- 0.4 mm coating thickness.	
Change gloves, if duration of activity	
exceeds break through time, Wear	
suitable working clothes., Wear	
suitable personal protective	
equipment.	4
Exposure estimate and reference to i	
Assessment method	EASY TRA v5.2, ECETOC TRA v3.0, Worker
E	Worker - inhalation, long-term - local
Exposure estimate	2,6702 mg/m³
Risk Characterization Ratio (RCR)	0,242744
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/t	ra

2. Short title of exposure scenario

Use as laboratory reagent/agent ERC1; PROC15

* * * * * * * * * * * * * * * * * *

to Regulation (EC) No 1907/2006.

Date / Revised: 26.09.2025 Version: 3.0 Date / Previous version: 15.09.2023 Previous version: 2.1

Product: tert-Butyl Acrylate (TBA)

(ID no. 30041990/SDS_GEN_DE/EN)

Date of print 19.10.2025

Control of exposure and risk management measures

Contributing exposure scenario			
Use descriptors covered	ERC1: Manufacture of the substance		
Operational conditions	Operational conditions		
Annual amount used in the EU	1.000 kg		
Minimum emission days per year	20		
Emission factor air	5 %		
Emission factor water	6 %		
Emission factor soil	0,01 %		
Receive Surf. Water (Flow Rate).	18.000 m3/d		
Dilution factor river	10		
Dilution factor coast	100		
Risk Management Measures			
Soil treatment measures considered s	uitable are, e.g.	No application of sludge to soil	
Type of STP	Type of 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	EASY TRA v5.2, ECETOC TRA v3.0, Environment	
Risk Characterization Ratio (RCR)	0,008632		
	Risk from environmental ex	xposure is driven by freshwater.	
	579,2		
Maximum amount of safe use	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	tert-butyl acrylate Content: >= 0 % - <= 100 %
Physical state	liquid
Vapour pressure of the substance during use	2000 Pa
Duration and Frequency of activity	480 min 5 days per week
Indoor/Outdoor	Indoor

to Regulation (EC) No 1907/2006. Date / Revised: 26.09.2025

Version: 3.0 Previous version: 2.1

Date / Previous version: 15.09.2023 Product: **tert-Butyl Acrylate (TBA)**

(ID no. 30041990/SDS_GEN_DE/EN)

Date of print 19.10.2025

	Assumes activities are at ambient temperature.
Risk Management Measures	
Local exhaust ventilation	Effectiveness: 90 %
Drain down and flush system prior to	
equipment break-in or maintenance.	
Regular inspection and maintenance	
of equipment and machines. Wash off	
any skin contamination immediately.	
Avoid frequent and direct contact with	
substance. Avoid skin contact.	
Provide basic employee training to	
prevent/minimize exposures. Handle	
in accordance with good industrial	
hygiene and safety practice.	
Avoid inhalation of the product., Wear	
suitable personal protective	
equipment.	
Use suitable eye protection.	
Avoid skin contact. Clean up	
contamination as soon as they occur.	
Hand protection: Suitable materials	
also with prolonged, direct contact	
(Recommended: Protective index 6,	
corresponding > 480 minutes of	
permeation time according to EN	
374): butyl rubber (butyl) - 0.7 mm	
coating thickness; nitrile rubber (NBR)	
- 0.4 mm coating thickness.	
Change gloves, if duration of activity	
exceeds break through time, Wear	
suitable working clothes., Wear	
suitable personal protective	
equipment.	
Exposure estimate and reference to it	
Assessment method	EASY TRA v5.2, ECETOC TRA v3.0, Worker
	Worker - inhalation, long-term - local
Exposure estimate	5,3404 mg/m³
Risk Characterization Ratio (RCR)	0,485489
Assessment method	Qualitative assessment
	Worker - dermal
Guidance to Downstream Users	
For scaling see: http://www.ecetoc.org/t	ra

* * * * * * * * * * * * * * *