| | MASTER SAFETY DATA SHEET | MSDS No. | M-02 |
|---|--|----------------|------------|
| BloomchemAG | BUTYL ACRYLATE | Effective From | 02/01/2023 |
| | | | |
| | tance/mixture and of the company/unde | rtaking | |
| .1 Product identifier: | | | |
| dentification on the label/Trade name: | Butyl acrylate | | |
| Additional identification: | Nanoform is NOT covered by this eSDS. | | |
| dentification of the product: | CAS#141-32-2 EC#205-480-7 | | |
| ndex Number: | 607-062-00-3 | | |
| REACH registration No.: | 01-2119453155-43-XXXX | | |
| .2 Relevant identified uses of the sub | stance or mixture and uses advised against | : | |
| 1.2.1 Identified uses: | | | |
| IW-3: Polymerization at production | sites (use of monomers) | | |
| IW-4: Polymerization at production | sites (use of process regulators) | | |
| IW-5: Polymerization at downstrea | m user sites (use of monomers) | | |
| IW-6: Polymerization at downstrea | m user sites (use of process regulators) | | |
| IW-7: Manufacture of intermediates | s at downstream user sites | | |
| 1.2.2 Uses advised against: | | | |
| No uses advised against are identi | fied. | | |
| .3 Details of the supplier of the safety | data sheet: | | |
| Supplier (Only representative): | Chemical Inspection & Regulation Service I | Limited | |
| Supplier | Bloomchemag BV | | |
| Address: | Sint-Antoniusstraat 16 b1 | | |
| | B-2400, Mol, Belgium | | |
| -mail | info@bloomchemag.com | | |
| elephone: | +91 72919 74484 / 72919 74050 | | |
| .4 Emergency telephone Number: | | | |
| Only available during office hours (9:00a | a.m17:30p.m.) | | |
| Available outside office hours? | YES NC | | |
| Section 2 Hazards Identification | | | |
| 2.1 Classification of the substance or I | nixture: | | |
| 2.1.1 Classification of the substance: | | | |
| | | | |

| REGULATION (EC) NO 1272/2008 | |
|----------------------------------|------------------|
| Hazard classes/Hazard categories | Hazard statement |
| Flam. Liq. 3 | H226 |
| Skin Irrit. 2 | H315 |
| Skin Sens. 1B | H317 |
| Eye Irrit. 2 | H319 |
| Acute Tox. 4 | H332 |

| STOT SE 3 | H335 | |
|-------------------|------|--|
| Aquatic Chronic 3 | H412 | |
| | | |

For full text of H- phrases: see section 2.2.

2.2 Label elements:

Hazard pictogram(s):



Signal word: Hazard statement(s):

Precautionary statement(s):

Warning

H226: Flammable liquid and vapour.

H315: Causes skin irritation.

H317: May cause an allergic skin reaction.

H319: Causes serious eye irritation.

H332: Harmful if inhaled.

H335: May cause respiratory irritation.

H412: Harmful to aquatic life with long lasting effects.

P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P233: Keep container tightly closed. If product is volatile so as to generate hazardous atmosphere.

P240: Ground/bond container and receiving equipment.

P241: Use explosion-proof electrical/ventilating/lighting equipment.

Manufacturer/supplier to specify other equipment.

P242: Use only non-sparking tools.

P243: Take precautionary measures against static discharge.

P261: Avoid breathing dust/fume/ gas/mist/vapours/spray.

P264: Wash hands thoroughly after handling.

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

P272: Contaminated work clothing should not be allowed out of the workplace.

P273: Avoid release to the environment.

P280: Wear protective gloves/ protective clothing/eye protection/face protection.

P302+P352: IF ON SKIN: Wash with plenty of water.

P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P312: Call a POISON CENTRE/ doctor if you feel unwell.

P333+P313: If skin irritation or rash occurs: Get medical advice/attention.

P337+P313: If eye irritation persists: Get medical advice/attention.

P362+P364: Take off contaminated clothing and wash it before reuse.

P370+P378: In case of fire: Use carbon dioxide, dry extinguishing media, water spray, and foam to extinguish.

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

P405: Store locked up.

Not applicable.

P501: Dispose of contents/ container in accordance with local/ regional/ national/international regulation (to be specified).

Supplemental Hazard information (EU)

2.3 Other hazards:

The substance is not PBT / vPvB.

The substance is not identified as having endocrine disrupting properties.

| Section 3 Composition/information on ingredients | | | | | |
|--|-----------------------|----------|-----------|---------------|--|
| Substance/Mixture: | Ire: Substance | | | | |
| Ingredient(s): | | | | | |
| Chemical Name | Registration No. | CAS No. | EC No. | Concentration | Specific Concentration limits, M-Factors, Acute Toxicity Estimates (ATE) |
| Butyl acrylate | 01-2119453155-43-XXXX | 141-32-2 | 205-480-7 | > 99 % (w/w) | N/A |

Section 4 First aid measures

4.1 Description of first aid measures:

Immediately remove contaminated clothing. If danger of loss of consciousness, place patient in recovery position and transport accordingly. Apply artificial respiration if necessary. First aid personnel should pay attention to their own safety. In all cases of doubt, or when symptoms persist, seek medical attention.

4.1.1 In case of inhalation:

Keep patient calm, remove to fresh air, and seek medical attention.

4.1.2 In case of skin contact:

Flush with copious amounts of water for at least 15 minutes. Immediate medical attention required.

4.1.3 In case of eyes contact:

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

4.1.4 In case of ingestion:

Immediately rinse mouth and then drink plenty of water, do not induce vomiting, seek medical attention.

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

Symptoms: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11. Further symptoms are possible.

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

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote, administer corticosteroid dose aerosol to prevent pulmonary edema.

If skin irritation or rash occurs, get medical advice/attention.

Section 5 Firefighting measures

. . .

| 5.1 Extinguishing media: | |
|--|---|
| Suitable extinguishing media: | Carbon dioxide, dry extinguishing media, water spray, foam. |
| Unsuitable extinguishing media: | High volume water jet. |
| 5.2 Special hazards arising from the substance or mixture | May be released in case of fire: carbon monoxide, carbon dioxide, organic |
| | products of decomposition. |
| | Risk of violent self-polymerization if overheated in a container. |
| 5.3 Advice for firefighters: | Special protective equipment: Wear a self-contained breathing apparatus. |
| | Further information: In case of a fire in the vicinity a restabilization system |
| | should be used if the temperature in the storage container reaches 45°C. |
| | Evacuate area of all unnecessary personnel. In case of a fire in the vicinity |

Section 6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

| 6.1.1 For non-emergency personnel: | Eliminate all sources of ignition. Wear appropriate protective clothing. Avoid breathing vapours. Keep unnecessary people away; isolate hazard area and deny entry. Consider need for evacuation. Stay up wind and keep out of low areas where vapour may accumulate and ignite. |
|--|--|
| 6.1.2 For emergency responders: | Wear an appropriate NIOSH/MSHA approved respirator if vapour is generated. Apply the same recommendations as above. |
| 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. Dispose of absorbed material in accordance with regulations. For residues: Pick up with suitable absorbent material. Dispose of absorbed material in accordance with regulations. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations. |
| 6.4 Reference to other sections: | See Section 8 for information on personal protection equipment. See Section 13 for information on disposal. |

Section 7 Handling and storage

7.1 Precautions for safe handling:

7.1.1 Protective measures:

Handle in accordance with good industrial hygiene and safety practice. The substance/ product may be handled only by appropriately trained personnel. Facility parts must be checked for polymer residues and cleaned on regular basis in order to avoid hazardous reactions. Ensure thorough ventilation of stores and work areas. Encapsulation or exhaust ventilation required. When filling, transferring, or emptying of containers, adequate local exhaust ventilation is necessary. Vent waste air to atmosphere only through suitable separators. Check the condition of seals and connector screw threads. Do not open warm or swollen product containers. Remove persons to safety and alert fire brigade. The temperatures which must be avoided are to be considered. Protect against heat. Protect from direct sunlight. Protect contents from the effects of light. Ensure adequate inhibitor and dissolved oxygen level.

Protection against fire and explosion:

Substance/product can form explosive mixture with air. Ground all transfer equipment properly to prevent electrostatic discharge. Containers should be grounded against electrostatic charge. It is recommended that all conductive parts of the machinery are grounded. Avoid all sources of ignition: heat, sparks, and open flame. Vapours may form explosive mixture with air. Ignitable mixtures can be formed in the emptied container. 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. Sealed containers should be protected against heat as this results in pressure build-up. Avoid influence of heat.

7.1.2 Advice on general occupational hygiene:

Good personal washing routines should be followed. Avoid contact with the skin, eyes and clothing. Avoid inhalation of vapour. Do not eat, drink and smoke in work areas. Wash hands after use. Wearing of closed work clothing is required additionally to the stated personal protection equipment. Remove

7.2 Conditions for safe storage, including any incompatibilities:

contaminated clothing and protective equipment before entering eating areas. Further information on storage conditions: Prior to storage ensure that the transfer equipment used and the intended storage containers do not contain other substances/products. Before transfer to stock the identity of the product must be proved to be without doubt. The entrance to storage rooms is to be granted only to appropriately trained personnel. The stabilizer is only effective in the presence of oxygen. Maintain contact with atmosphere containing 5 - 21% oxygen. Never use tanks with inert-gas installation for storage. Risk of polymerization. Protect against heat. Protect from direct sunlight. Protect contents from the effects of light. Avoid UV-light and other radiation with high energy. Protect against contamination. All storage containers 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 stability:

Storage temperature: < 35 °C

Storage duration: 12 Months

The stated storage temperature should be noted.

Avoid prolonged storage.

This product should be processed as soon as possible.

Ensure adequate inhibitor and dissolved oxygen level.

The product is stabilized, the shelf life should be noted.

Do not store with less than 10 % headspace above liquid.

Storage stability is based upon ambient temperatures and conditions described. Shelf life is limited; see product information leaflet. Storage temperature: 45 °C

A restabilization system should be used if the temperature in the storage container reaches the indicated value.

Storage temperature: 60 °C

All personnel in a greater area should be evacuated if the temperature in the storage container reaches the indicated value. Not applicable.

7.3 Specific end use(s):

Section 8 Exposure Controls/Personal Protection

8.1 Control parameters:

8.1.1 Occupational exposure limits:

| | | | | Occupation | al Exposure | Occupation | al Exposure | Limit Value (15-minute |
|-----------|----------------|-----------|----------|---------------------|-------------------|-------------------|-------------------|------------------------|
| | | | | Limit Value (8-hour | | reference period) | | e period) |
| | | | | referenc | e period) | | | |
| Country | Substance | EINECS | CAS No. | Ppm | mg/m ³ | ppm | mg/m ³ | Note |
| | | No. | | | | | | |
| Belgium | Butyl acrylate | 205-480-7 | 141-32-2 | 2 | 11 | 10 | 53 | - |
| Bulgaria | Butyl acrylate | 205-480-7 | 141-32-2 | - | 11 | - | 53 | - |
| Denmark | Butyl acrylate | 205-480-7 | 141-32-2 | 2 | 11 | - | - | - |
| Germany | Butyl acrylate | 205-480-7 | 141-32-2 | 2 | 11 | - | - | - |
| Ireland | Butyl acrylate | 205-480-7 | 141-32-2 | 2 | 11 | 10 | 53 | IOELV |
| Italy | Butyl acrylate | 205-480-7 | 141-32-2 | 2 | 11 | 10 | 53 | - |
| Lithuania | Butyl acrylate | 205-480-7 | 141-32-2 | 2 | 11 | 10 | 53 | - |
| Spain | Butyl acrylate | 205-480-7 | 141-32-2 | 2 | 11 | 10 | 53 | VLI, Sen |
| Sweden | Butyl acrylate | 205-480-7 | 141-32-2 | 10 | 50 | 15 | 80 | S |
| France | Butyl acrylate | 205-480-7 | 141-32-2 | 2 | 11 | 10 | 53 | - |

| Europe Butyl acrylate 205 | -480-7 141-32-2 | 2 11 | 10 53 | - |
|---------------------------|-----------------|------|-------|---|
|---------------------------|-----------------|------|-------|---|

8.1.2 Additional exposure limits under

Not available.

the conditions of use:

8.1.3 DNEL/DMEL and PNEC-Values:

| Workers - Hazard via inhalation route | Systemic effects-Long term exposure | No hazard identified |
|--|-------------------------------------|----------------------------------|
| Workers - Hazard via inhalation route | Local effects-Long term exposure | DNEL = 11 mg/m ³ |
| Workers - Hazard via dermal route | Systemic effects-Long term exposure | No hazard identified |
| General Population - Hazard via inhalation route | Systemic effects-Long term exposure | No hazard identified |
| General Population - Hazard via dermal route | Systemic effects-Long term exposure | No hazard identified |
| General Population - Hazard via oral route | Systemic effects-Long term exposure | No hazard identified |
| Hazard for aquatic organisms | Freshwater | PNEC=0.003 mg/L |
| Hazard for aquatic organisms | Marine water | PNEC=0 mg/L |
| Hazard for aquatic organisms | Freshwater-Intermittent releases | PNEC=0.011 mg/L |
| Hazard for aquatic organisms | STP | PNEC=3.5 mg/L |
| Hazard for aquatic organisms | Sediment (freshwater) | PNEC=0.034 mg/kg sediment dw |
| Hazard for aquatic organisms | Sediment (marine water) | PNEC=0.003 mg/kg sediment dw |
| Hazard for terrestrial organisms | Soil | PNEC=1 mg/kg soil dw |
| Hazard for predators | Secondary poisoning | No potential for bioaccumulation |

8.2 Exposure controls:

8.2.1 Appropriate engineering controls:

Handle in accordance with good industrial hygiene and safety practice. Provide local exhaust ventilation system or other engineering controls to keep the airborne concentrations of vapours below their respective threshold limit value. Check legal suitability of exposure level. Wash hands before breaks and at the end of workday.

8.2.2 Individual protection measures, such as personal protective equipment:

| Eye/face protection: | Safety glasses with side-shields (frame goggles) (e.g. EN 166). |
|--|---|
| Skin protection | |
| 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 |
| | 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. |
| 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). |
| Respiratory protection: | Suitable respiratory protection for lower concentrations or short-term effect: Gas |
| | filter for gases/vapours of organic compounds (boiling point >65 $^\circ$ C, e. g. EN |
| | 14387 Туре А). |
| Thermal hazards: | Wear suitable protective clothing to prevent heat. |
| 8.2.3 Environmental exposure controls: | Do not discharge into drains/surface waters/groundwater. Contain |

contaminated water/firefighting water. According to local regulations, Federal and official regulations.

Section 9 Physical and chemical properties

9.1 Information on basic physical and chemical properties: Appearance: Liquid at 20°C and 101.3 kPa Colour: Colourless Odour: Strong, fruity **Odour threshold:** Not available pH: Not available Melting/freezing point/range (°C): -64.6 °C Boiling point/range (°C): 147 °C at 1013.25 hPa Flash point (°C): 37 °C at 1013.25 hPa (closed cup) **Evaporation rate:** Not available Flammability limit - lower (%): Not available Flammability: Flammable Ignition temperature (°C): Not available Not available Upper/lower explosive limits: Vapour pressure (20°C): 5 hPa at 22.2 °C Vapour density: Not available **Relative Density:** 0.9 at 20 °C Bulk density (kg/m³): Not available 1.7 g/L at 20 °C Water solubility (g/l): n-Octanol/Water (log Po/w): Log Kow (Log Pow): 2.38 at 25 °C Auto-ignition temperature: 275 °C at 101.3 kPa **Decomposition temperature:** Not available 0.88 mPa . s (dynamic) at 20 °C Viscosity, dynamic (mPa.s): **Explosive properties:** Non explosive **Oxidising properties:** Oxidising: no Molecular Formula: C7H12O2 Molecular Weight (g/mol): 128.169 9.2. Other information: Fat solubility(solvent-oil to be specified) Not available etc: Surface tension: Not surface active. Dissociation constant in water(pKa): Not applicable. The substance does not contain any ionic structure. **Oxidation-reduction Potential:** Not available Granulometry: Not applicable

| 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 flammable gases: 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: | Product is heated above the flash point and/or when sprayed or atomized. |
| | Formation of explosive gas/air mixtures. |
| | Risk of spontaneous and violent self-polymerization if inhibitor is lost or product |

| | is exposed to excessive heat. Risk of spontaneous polymerization when heated |
|--|--|
| | or in the presence of UV radiation. With unstabilised product, spontaneous |
| | polymerisation may occur e.g. through ambient heat. Polymerization coupled |
| | with heat formation. Polymerization produces gases which may burst closed or |
| | confined containers. Reactions may cause ignition. |
| | Risk of spontaneous polymerization by oxygen depletion of the liquid phase. |
| | Radical formation can cause exothermic polymerization. Reacts with peroxides |
| | and other radical components. Risk of spontaneous polymerization in the |
| | presence of starters for radical chain reactions (e.g. peroxides). Reacts with |
| | nitric acid. Polymerizes explosively in contact with strong oxidizing agents. Risk |
| | of spontaneous polymerization in the presence of oxidizing agents. |
| | Hazardous reactions in presence of mentioned substances to avoid. The |
| | product is stabilized against spontaneous polymerization prior to dispatch. |
| | The product is stable if stored and handled as prescribed/indicated. |
| 10.4 Conditions to avoid: | Incompatible materials. 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. |
| 10.5 Incompatible materials: | Radical formers, free radical initiators, peroxides, mercaptans, |
| | nitro-compounds, perborates, azides, ether, ketones, aldehydes, amines, |
| | nitrates, nitrites, oxidizing agents, reducing agents, strong bases, acid |
| | anhydrides, acid chlorides, concentrated mineral acids, metal salts. |
| 10.6 Hazardous decomposition products: | No hazardous decomposition products if stored and handled as |
| | prescribed/indicated. In case of fire may release carbon monoxide, carbon |
| | dioxide, organic products of decomposition. |

Section 11 Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008:

| Acute toxicity: | |
|------------------------------------|--|
| LD50(Oral, Rat): | 3 150 mg/kg bw |
| LD50(Dermal, Rabbit): | 2 000 mg/kg bw |
| LC50(Inhalation, Rat): | 10.3 mg/L air (analytical) (4h) |
| Skin corrosion/Irritation: | Causes skin irritation. |
| Serious eye damage/irritation: | Causes serious eye irritation. |
| Respiratory or skin sensitization: | May cause an allergic skin reaction. |
| Germ cell mutagenicity: | Not classified |
| Carcinogenicity: | Not classified |
| Reproductive toxicity: | Not classified |
| STOT- single exposure: | May cause respiratory irritation. |
| | Affected Organs: Respiratory tract; Route of exposure: Inhalation. |
| STOT-repeated exposure: | Not classified |
| Aspiration hazard: | Not classified |
| 11.2 Information on other hazards | |
| Endocrine disrupting properties | The substance is not identified as having endocrine disrupting properties. |
| Other information | Not applicable |
| | |

Section 12 Ecological information

12.1 Toxicity:

| Acute (short-term) toxicity: | |
|--|---|
| LC50(96h, Fish): | 5.2 mg/L (Salmo gairdneri, OECD 203); |
| | 2.1 mg/L (Cyprinodon variegatus, OECD 203) |
| EC50(48h, Daphnia magna): | 8.2 mg/L |
| EC50(96h, Algae/aquatic plants): | 2.65 mg/L (cell number) |
| Chronic (long-term) toxicity: | |
| NOEC(Fish): | Not available |
| NOEC(Daphnia magna): | 0.136 mg/L (Daphnia magna, OECD 211, semi-static); |
| | 0.19 mg/L (Daphnia magna, EPA OTS 797.1330, flow-through) |
| NOEC(Algae/aquatic plants): | < 3.8 mg/L (96h) |
| 12.2 Persistence and degradability: | Readily biodegradable. |
| 12.3 Bioaccumulative potential: | n-Butyl acrylate does not accumulate in organisms. |
| | Koc = 88.4. Adsorption of n-Butyl acrylate to the solid soil phase is not |
| | expected. n-Butyl acrylate is placed into a medium to high mobility class for |
| 12.4 Mobility in soil: | adsorption and desorption to soils. |
| 12.5 Results of PBT and vPvB assessment: | The substance is not PBT / vPvB. |
| 12.6 Endocrine disrupting properties: | The substance is not identified as having endocrine disrupting properties. |
| 12.7 Other adverse effects: | Harmful to aquatic life with long lasting effects. |
| 12.8 Additional information | Not available. |

| Section 13 Disposal consideration | s |
|-----------------------------------|--|
| 13.1 Waste treatment methods: | Dispose of in accordance with all applicable local and national regulations. Use |
| | recovery/recycling where feasible, otherwise incineration is the recommended |
| | method of disposal. Empty containers may contain hazardous residues. Do not |
| | cut, puncture or weld on or near to the container. Labels should not be removed |
| | from containers until they have been cleaned. Contaminated containers must |
| | not be treated as household waste. Containers should be cleaned by |
| | appropriate methods and then re-used or disposed of by landfill or incineration |
| | as appropriate. Do not incinerate closed containers. |

Section 14 Transport information

| | Land transport (ADR/RID) | Inland waterways (ADN) | Sea transport (IMDG) | Air transport (ICAO/IATA) |
|------------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|
| 14. 1 UN number or ID number | 2348 | 2348 | 2348 | 2348 |
| 14.2 UN Proper shipping name | BUTYL ACRYLATES, STABILIZED | BUTYL ACRYLATES, STABILIZED | BUTYL ACRYLATES, STABILIZED | BUTYL ACRYLATES, STABILIZED |
| 14.3 Transport hazard Class(es) | 3 | 3 | 3 | 3 |
| 14.4 Packing group | III | III | III | III |
| 14.5 Environmental hazards | No | No | No | No |
| 14.6 Special | See section 2.2 | See section 2.2 | See section 2.2 | See section 2.2 |

| precautions for user | | | | |
|---|-------|-------|-------|-------|
| 14.7 Maritime transport in bulk according to IMO instruments | IBC03 | IBC03 | IBC03 | IBC03 |

| Section 15 Regulatory information | | | | | |
|--|---|---|----|--|--|
| 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture: | | | | | |
| Relevant information regarding authorization: | Not applicable. | | | | |
| Relevant information regarding restriction: | Not applicable. | | | | |
| Other EU regulations: | Employment restrictions concerning young person must be observed. For | | | | |
| | use only by technically qualified individuals. | | | | |
| Other National regulations: | Not applicable | | | | |
| 15.2 Chemical safety assessment | YES | Х | NO | | |

Section 16 Other information

16.1 Indication of changes:

Version 1.0 Amended by (EU) 2020/878

Version 2.0 Exposure scenarios are placed after section 16.

16.2 Abbreviations and acronyms:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

RID: Regulation for rail International transportation of Dangerous goods

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

IMDG: Code international maritime dangerous goods code

ICAO: International Civil Aviation Organization

IATA: International Air Transport Association

LC50: median lethal concentration

EC50: The effective concentration of substance that causes 50% of the maximum response.

NOEC: No Observed Effect Concentration

DNEL: derived no-effect level

PNEC: predicted no-effect concentration

16.3 Key literature references and sources for data

ECHA Registered substances data

16.4 Classification and procedure used to derive the classification for mixtures according to Regulation (EC)

1272/2008 [CLP]

| Classification according to Regulation (EC) No. 1272/2008 | | Classification procedure |
|---|------|--------------------------|
| Flam. Liq. 3 | H226 | On basis of test data |
| Skin Irrit. 2 | H315 | On basis of test data |
| Skin Sens. 1B | H317 | On basis of test data |
| Eye Irrit. 2 | H319 | On basis of test data |
| Acute Tox. 4 | H332 | On basis of test data |
| STOT SE 3 | H335 | On basis of test data |
| Aquatic Chronic 3 | H412 | On basis of test data |

16.5 Relevant H-statements (number and full text):

H226: Flammable liquid and vapour.

H315: Causes skin irritation.

H317: May cause an allergic skin reaction.

H319: Causes serious eye irritation.

H332: Harmful if inhaled.

H335: May cause respiratory irritation.

H412: Harmful to aquatic life with long lasting effects.

16.6 Training instructions:

Not applicable.

16.7 Further information:

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

16.8 Notice to reader:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgment of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.