

# SAFETY DATA SHEET

BIOTIN-XL-BSA

## Section 1. Identification

**Product identifier** : BIOTIN-XL-BSA  
**Other means of identification** : Not available.  
**Product type** : Liquid.  
**Product part number** : R5013  
**Kit name** : **T**HRESHOLD STICK KIT-BSA COATED MEMBRANE  
**Kit part number** : **T**R8003/R5014

### Relevant identified uses of the substance or mixture and uses advised against

**Product use** : For R&D use only.  
**Area of application** : Professional applications.

**Manufacturer** : MOLECULAR DEVICES, LLC  
3860 N First Street  
San Jose, CA 95134  
USA

**e-mail address of person responsible for this SDS** : msdsinquiry@moldev.com

**Emergency telephone number (with hours of operation)** : CHEMTREC (24 hours): 1-800-424-9300 (USA/Canada),  
+1 703-527-3887 (Outside USA/Canada)

## Section 2. Hazard identification

**Classification of the substance or mixture** : **T**R318 SERIOUS EYE DAMAGE - Category 1  
H334 RESPIRATORY SENSITIZATION - Category 1  
H317 SKIN SENSITIZATION - Category 1  
H373 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

### GHS label elements

**Hazard pictograms** :



**Signal word** : Danger

**Hazard statements** : **T**R317 - May cause an allergic skin reaction.  
H318 - Causes serious eye damage.  
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H373 - May cause damage to organs through prolonged or repeated exposure. (gastrointestinal tract, stomach, trachea)

### Precautionary statements

**Date of issue/Date of revision** : 06/05/2021 **Date of previous issue** : 21/02/2018 **Version** : 2 1/14

## Section 2. Hazard identification

- Prevention** : P280 - Wear protective gloves. Wear eye or face protection.  
P284 - Wear respiratory protection.  
P260 - Do not breathe vapor.
- Response** : P314 - Get medical advice or attention if you feel unwell.  
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor.  
P362 + P364 - Take off contaminated clothing and wash it before reuse.  
P302 + P352 - IF ON SKIN: Wash with plenty of water.  
P333 + P313 - If skin irritation or rash occurs: Get medical advice or attention.  
P305 + P351 + P338, P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
Immediately call a POISON CENTER or doctor.
- Storage** : Not applicable.
- Disposal** : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

## Section 3. Composition/information on ingredients

- Substance/mixture** : Mixture
- Other means of identification** : Not available.

| Ingredient name   | Other names | % (w/w) | CAS number |
|---|-------------|---------|------------|
| Albumins, blood serum   | -           | 1 - 5   | 9048-46-8  |
| succinic anhydride  | -           | 1 - 5   | 108-30-5   |
| potassium carbonate   | -           | 1 - 5   | 584-08-7   |
| N'-(ethylcarbonimidoyl)-N,N-dimethylpropane-1,3-diamine monohydrochloride | -           | 1 - 5   | 25952-53-8 |

Ranges if listed above for hazardous ingredient(s) are prescribed ranges. The actual concentration(s) or actual concentration range(s) are being withheld as a trade secret.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First-aid measures

### Description of necessary first aid measures

- Eye contact** : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.

## Section 4. First-aid measures

- Inhalation** : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. In the event of any complaints or symptoms, avoid further exposure.
- Skin contact** : Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- Skin contact** : May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:  
pain  
watering  
redness
- Inhalation** : Adverse symptoms may include the following:  
wheezing and breathing difficulties  
asthma
- Skin contact** : Adverse symptoms may include the following:  
pain or irritation  
redness  
blistering may occur
- Ingestion** : Adverse symptoms may include the following:  
stomach pains

## Section 4. First-aid measures

### Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : Do not use water jet.

**Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst.

- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
 carbon dioxide  
 carbon monoxide  
 nitrogen oxides  
 sulfur oxides  
 halogenated compounds  
 metal oxide/oxides

**Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

## Section 6. Accidental release measures

**Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and materials for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems or asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

None.

**Appropriate engineering controls** : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

**Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### Individual protection measures

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

### Skin protection

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

**Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

## Section 9. Physical and chemical properties

### Appearance

|   |                    |
|---|--------------------|
| <b>Physical state</b>                               | : Liquid. [Clear.] |
| <b>Color</b>  | : Yellow.          |
| <b>Odor</b>   | : Not available.   |
| <b>Odor threshold</b>                               | : Not available.   |
| <b>pH</b>   | : 6.8 to 7.2       |
| <b>Melting point</b>                                | : Not available.   |
| <b>Boiling point</b>                                | : Not available.   |
| <b>Flash point</b>                                  | : Not available.   |
| <b>Evaporation rate</b>                             | : Not available.   |
| <b>Flammability (solid, gas)</b>                    | : Not applicable.  |
| <b>Lower and upper explosive (flammable) limits</b> | : Not available.   |
| <b>Vapor pressure</b>                               | : Not available.   |
| <b>Vapor density</b>                                | : Not available.   |
| <b>Relative density</b>                             | : Not available.   |
| <b>Solubility</b>                                   | : Not available.   |
| <b>Partition coefficient: n-octanol/water</b>       | : Not available.   |
| <b>Auto-ignition temperature</b>                    | : Not available.   |
| <b>Decomposition temperature</b>                    | : Not available.   |
| <b>Viscosity</b>                                    | : Not available.   |
| <b>Flow time (ISO 2431)</b>                         | : Not available.   |

## Section 10. Stability and reactivity

|   |   |
|---|---|
| <b>Reactivity</b>                         | : No specific test data related to reactivity available for this product or its ingredients.  |
| <b>Chemical stability</b>                 | : The product is stable.  |
| <b>Possibility of hazardous reactions</b> | : Under normal conditions of storage and use, hazardous reactions will not occur.<br>Under normal conditions of storage and use, hazardous polymerization will not occur. |
| <b>Conditions to avoid</b>                | : No specific data.   |
| <b>Incompatible materials</b>             | : Reactive or incompatible with the following materials: oxidizing materials.   |
| <b>Hazardous decomposition products</b>   | : Under normal conditions of storage and use, hazardous decomposition products should not be produced.  |

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

| Product/ingredient name   | Result      | Species               | Dose        | Exposure |
|---|-------------|-----------------------|-------------|----------|
| succinic anhydride  | LD50 Dermal | Rat - Male,<br>Female | >2000 mg/kg | -        |
| potassium carbonate   | LD50 Oral   | Rat                   | 1510 mg/kg  | -        |
| N'-(ethylcarbonimidoyl)-N,N-dimethylpropane-1,3-diamine monohydrochloride | LD50 Oral   | Rat                   | 1870 mg/kg  | -        |
|   | LD50 Dermal | Rat - Male,<br>Female | ≤1000 mg/kg | -        |
|   | LD50 Oral   | Rat - Female          | 500 mg/kg   | -        |

**Conclusion/Summary** : Not available.

#### Irritation/Corrosion

| Product/ingredient name | Result                 | Species | Score | Exposure | Observation |
|-------------------------|------------------------|---------|-------|----------|-------------|
| succinic anhydride      | Eyes - Severe irritant | Rabbit  | -     | 750 ug   | -           |

#### Conclusion/Summary

**Skin** : Not available.

**Eyes** : Not available.

**Respiratory** : Not available.

#### Sensitization

#### Conclusion/Summary

**Skin** : Not available.

**Respiratory** : Not available.

#### Mutagenicity

**Conclusion/Summary** : Not available.

#### Carcinogenicity

**Conclusion/Summary** : Not available.

#### Reproductive toxicity

**Conclusion/Summary** : Not available.

#### Teratogenicity

**Conclusion/Summary** : Not available.

#### Specific target organ toxicity (single exposure)

| Name  | Category   | Route of exposure | Target organs                |
|---|------------|-------------------|------------------------------|
| succinic anhydride  | Category 3 | -                 | Respiratory tract irritation |
| potassium carbonate   | Category 3 | -                 | Respiratory tract irritation |
| N'-(ethylcarbonimidoyl)-N,N-dimethylpropane-1,3-diamine monohydrochloride | Category 3 | -                 | Respiratory tract irritation |

#### Specific target organ toxicity (repeated exposure)



## Section 11. Toxicological information

| Name   | Category   | Route of exposure | Target organs                            |
|--|------------|-------------------|--|
| N <sup>+</sup> -(ethylcarbonimidoyl)-N,N-dimethylpropane-1,3-diamine monohydrochloride | Category 2 | -                 | gastrointestinal tract, stomach, trachea |

### Aspiration hazard

Not available.

**Information on the likely routes of exposure** : Routes of entry anticipated: Oral, Dermal, Inhalation.

### Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- Skin contact** : May cause an allergic skin reaction.
- Ingestion** : No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:  
pain  
watering  
redness
- Inhalation** : Adverse symptoms may include the following:  
wheezing and breathing difficulties  
asthma
- Skin contact** : Adverse symptoms may include the following:  
pain or irritation  
redness  
blistering may occur
- Ingestion** : Adverse symptoms may include the following:  
stomach pains

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

#### Long term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

### Potential chronic health effects

- General** :  May cause damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
- Carcinogenicity** : No known significant effects or critical hazards.

## Section 11. Toxicological information

- Mutagenicity** : No known significant effects or critical hazards.  
**Reproductive toxicity** : No known significant effects or critical hazards.

### Numerical measures of toxicity

#### Acute toxicity estimates

| Product/ingredient name   | Oral (mg/kg) | Dermal (mg/kg) | Inhalation (gases) (ppm) | Inhalation (vapors) (mg/l) | Inhalation (dusts and mists) (mg/l) |
|---|--------------|----------------|--------------------------|----------------------------|-------------------------------------|
| BIOTIN-XL-BSA   | 6075.8       | 11461.1        | N/A                      | N/A                        | N/A                                 |
| Albumins, blood serum   | 500          | N/A            | N/A                      | N/A                        | N/A                                 |
| succinic anhydride  | 1510         | 2500           | N/A                      | N/A                        | N/A                                 |
| potassium carbonate   | 1870         | N/A            | N/A                      | N/A                        | N/A                                 |
| N'-(ethylcarbonimidoyl)-N,N-dimethylpropane-1,3-diamine monohydrochloride | 500          | 300            | N/A                      | N/A                        | N/A                                 |

## Section 12. Ecological information

### Toxicity

| Product/ingredient name | Result                           | Species                          | Exposure |
|-------------------------|----------------------------------|----------------------------------|----------|
| succinic anhydride      | Acute EC50 >100 mg/l Fresh water | Algae                            | 72 hours |
|                         | Acute EC50 >100 mg/l Fresh water | Daphnia                          | 48 hours |
|                         | Acute LC50 >100 mg/l Fresh water | Fish                             | 96 hours |
|                         | Acute NOEC 100 mg/l Fresh water  | Algae                            | 72 hours |
|                         | Acute NOEC 23 mg/l Fresh water   | Daphnia                          | 48 hours |
|                         | Acute NOEC 100 mg/l Fresh water  | Fish                             | 96 hours |
| potassium carbonate     | Acute LC50 630 mg/l Fresh water  | Crustaceans - Ceriodaphnia dubia | 48 hours |
|                         | Acute LC50 650 mg/l Fresh water  | Daphnia - Daphnia magna          | 48 hours |

**Conclusion/Summary** : Not available.

### Persistence and degradability

| Product/ingredient name | Test  | Result   | Dose                         | Inoculum     |
|-------------------------|---|--|------------------------------|--------------|
| succinic anhydride      | OECD 301E Ready Biodegradability - Modified OECD Screening Test           | 96.55 % - Readily - 28 days                                | -                            | -            |
|                         | N'-(ethylcarbonimidoyl)-N,N-dimethylpropane-1,3-diamine monohydrochloride | 301F Ready Biodegradability - Manometric Respirometry Test | <5 % - Not readily - 28 days | 100 mg/l COD |

**Conclusion/Summary** : Not available.

## Section 12. Ecological information

| Product/ingredient name   | Aquatic half-life | Photolysis | Biodegradability       |
|---|-------------------|------------|------------------------|
| Succinic anhydride<br>N'-(ethylcarbonimidoyl)-N,N-dimethylpropane-1,3-diamine monohydrochloride | -<br>-            | -<br>-     | Readily<br>Not readily |

### Bioaccumulative potential

| Product/ingredient name   | LogP <sub>ow</sub> | BCF    | Potential  |
|---|--------------------|--------|------------|
| Succinic anhydride<br>N'-(ethylcarbonimidoyl)-N,N-dimethylpropane-1,3-diamine monohydrochloride | 2.44<br>-2.98      | -<br>- | low<br>low |

### Mobility in soil

Soil/water partition coefficient (K<sub>oc</sub>) : Not available.

Other adverse effects : No known significant effects or critical hazards.

## Section 13. Disposal considerations

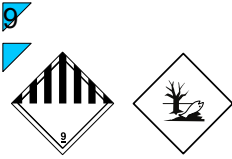
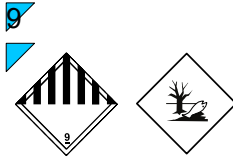
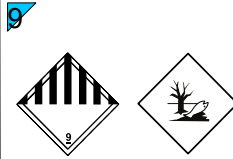
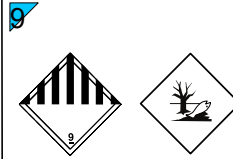
**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## Section 14. Transport information

|                         | TDG Classification   | DOT Classification  | IMDG   | IATA  |
|-------------------------|--|---|--|---|
| UN number               | UN3082   | UN3082  | UN3082   | UN3082  |
| UN proper shipping name | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (N'-(ethylcarbonimidoyl)-N,N-dimethylpropane-1,3-diamine | Environmentally hazardous substance, liquid, n.o.s. (N'-(ethylcarbonimidoyl)-N,N-dimethylpropane-1,3-diamine monohydrochloride) | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (N'-(ethylcarbonimidoyl)-N,N-dimethylpropane-1,3-diamine | Environmentally hazardous substance, liquid, n.o.s. (N'-(ethylcarbonimidoyl)-N,N-dimethylpropane-1,3-diamine monohydrochloride) |

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## Section 14. Transport information

|                                   | monohydrochloride)  |   | monohydrochloride)   |   |
|-----------------------------------|---|---|--|---|
| <b>Transport hazard class(es)</b> |  |  |  |  |
| <b>Packing group</b>              | III   | III   | III  | III   |
| <b>Environmental hazards</b>      | Yes.  | Yes.  | Yes.   | Yes.  |

### Additional information

#### TDG Classification

: Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.43-2.45 (Class 9), 2.7 (Marine pollutant mark). Non-bulk packages of this product are not regulated as dangerous goods when transported by road or rail.

#### **Explosive Limit and Limited Quantity Index 5**

**Special provisions** 16, 99

#### DOT Classification

: Non-bulk packages of this product are not regulated as hazardous materials unless transported by inland waterway. This product is not regulated as a hazardous material when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of §§ 173.24 and 173.24a.

**Limited quantity** Yes.

**Packaging instruction** Exceptions: 155. Non-bulk: 203. Bulk: 241.

**Special provisions** 8, 146, 173, 335, IB3, T4, TP1, TP29

#### IMDG

: This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

**Emergency schedules** F-A, S-F

**Special provisions** 274, 335, 969

#### IATA

: This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.

**Quantity limitation** Passenger and Cargo Aircraft: 450 L. Packaging instructions: 964. Cargo Aircraft Only: 450 L. Packaging instructions: 964. Limited Quantities - Passenger Aircraft: 30 kg. Packaging instructions: Y964.

**Special provisions** A97, A158, A197

#### Special precautions for user

: **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

#### Transport in bulk according to IMO instruments

: Not available.

## Section 15. Regulatory information

### Canadian lists

**Canadian NPRI** : None of the components are listed.

**CEPA Toxic substances** : None of the components are listed.

**Canada inventory** : Not determined.

### International regulations

#### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

#### Montreal Protocol

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

#### Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

#### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

## Section 16. Other information

### History

**Date of issue/Date of revision** : 06/05/2021

**Date of previous issue** : 21/02/2018

**Version** : 2

**Prepared by** : Sphera Solutions

**Key to abbreviations** : ATE = Acute Toxicity Estimate  
 BCF = Bioconcentration Factor  
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
 HPR = Hazardous Products Regulations  
 IATA = International Air Transport Association  
 IBC = Intermediate Bulk Container  
 IMDG = International Maritime Dangerous Goods  
 LogPow = logarithm of the octanol/water partition coefficient  
 MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
 N/A = Not available  
 UN = United Nations

### Procedure used to derive the classification

| Classification  | Justification      |
|---|--------------------|
| ☑ SERIOUS EYE DAMAGE - Category 1                               | Calculation method |
| RESPIRATORY SENSITIZATION - Category 1                          | Calculation method |
| SKIN SENSITIZATION - Category 1                                 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 | Calculation method |

**References** : HPR = Hazardous Products Regulations

☑ Indicates information that has changed from previously issued version.

## Section 16. Other information

### [Notice to reader](#)

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.