# SAFETY DATA SHEET

# Embutramide / Mebezonium / Tetracaine Formulation

| Version | Revision Date: | SDS Number: | Date of last issue: 20.01.2023 |
|---|---|---|---|
| 5.0 | 04.04.2023 | 1714386-00020 | Date of first issue: 25.05.2017 |

## SECTION 1. IDENTIFICATION

Product name : Embutramide / Mebezonium / Tetracaine Formulation

**Manufacturer or supplier's details**

Company : MSD

Address : Talcahuano 750, 6th floor, Ciudad Autonoma Buenos Aires, Argentina C1013AAP

Telephone : 908-740-4000

Emergency telephone : 1-908-423-6000

E-mail address : EHSDATASTEWARD@msd.com

**Recommended use of the chemical and restrictions on use**

Recommended use : Veterinary product

Restrictions on use : Not applicable

## SECTION 2. HAZARDS IDENTIFICATION

**GHS Classification**

Flammable liquids : Category 4

Acute toxicity (Oral) : Category 4

Acute toxicity (Inhalation) : Category 4

Acute toxicity (Dermal) : Category 4

Serious eye damage/eye irritation : Category 2A

Reproductive toxicity : Category 1B

Specific target organ toxicity - single exposure : Category 3

**GHS label elements**

Hazard pictograms :

Signal Word : Danger

Hazard Statements : H227 Combustible liquid.
H302 + H312 + H332 Harmful if swallowed, in contact with skin or if inhaled.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
H360D May damage the unborn child.

Precautionary Statements :

**Prevention:**

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261 Avoid breathing mist or vapors.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response:**

P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.
P302 + P352 + P312 IF ON SKIN: Wash with plenty of water.Call a POISON CENTER/ doctor if you feel unwell.
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313 IF exposed or concerned: 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.

**Storage:**

P405 Store locked up.

**Disposal:**

P501 Dispose of contents/ container to an approved waste disposal plant.

**Other hazards which do not result in classification**

Vapors may form explosive mixture with air.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

**Components**

| Chemical name | CAS-No. | Concentration (% w/w) |
|---|---|---|
| N,N-Dimethylformamide | 68-12-2 | >= 50 -< 70 |
| Embutramide | 15687-14-6 | >= 20 -< 25 |
| Mebezonium iodide | 7681-78-9 | >= 5 -< 10 |
| tetracaine hydrochloride | 136-47-0 | >= 0,1 -< 1 |

## SECTION 4. FIRST AID MEASURES

General advice : In the case of accident or if you feel unwell, seek medical advice immediately.
When symptoms persist or in all cases of doubt seek medical advice.

If inhaled : If inhaled, remove to fresh air.
If not breathing, give artificial respiration.
If breathing is difficult, give oxygen.
Get medical attention.

In case of skin contact : In case of contact, immediately flush skin with plenty of water.
Remove contaminated clothing and shoes.
Get medical attention.
Wash clothing before reuse.
Thoroughly clean shoes before reuse.

In case of eye contact : In case of contact, immediately flush eyes with plenty of water for at least 15 minutes.
If easy to do, remove contact lens, if worn.
Get medical attention.

If swallowed : If swallowed, DO NOT induce vomiting.
Get medical attention.
Rinse mouth thoroughly with water.
Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed : Harmful if swallowed, in contact with skin or if inhaled.
Causes serious eye irritation.
May cause drowsiness or dizziness.
May damage the unborn child.

Protection of first-aiders : First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists (see section 8).

Notes to physician : Treat symptomatically and supportively.

## SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Water spray
Alcohol-resistant foam
Carbon dioxide (CO2)
Dry chemical

Unsuitable extinguishing media : High volume water jet

Specific hazards during fire fighting : Do not use a solid water stream as it may scatter and spread fire.
Flash back possible over considerable distance.
Vapors may form explosive mixtures with air.

Exposure to combustion products may be a hazard to health.

| | | |
|---|---|---|
| Hazardous combustion products | : | Carbon oxides<br>Nitrogen oxides (NOx) |
| Specific extinguishing methods | : | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.<br>Use water spray to cool unopened containers.<br>Remove undamaged containers from fire area if it is safe to do so.<br>Evacuate area. |
| Special protective equipment for fire-fighters | : | In the event of fire, wear self-contained breathing apparatus.<br>Use personal protective equipment. |

## SECTION 6. ACCIDENTAL RELEASE MEASURES

| | | |
|---|---|---|
| Personal precautions, protective equipment and emergency procedures | : | Remove all sources of ignition.<br>Use personal protective equipment.<br>Follow safe handling advice (see section 7) and personal protective equipment recommendations (see section 8). |
| Environmental precautions | : | Avoid release to the environment.<br>Prevent further leakage or spillage if safe to do so.<br>Prevent spreading over a wide area (e.g., by containment or oil barriers).<br>Retain and dispose of contaminated wash water.<br>Local authorities should be advised if significant spillages cannot be contained. |
| Methods and materials for containment and cleaning up | : | Non-sparking tools should be used.<br>Soak up with inert absorbent material.<br>Suppress (knock down) gases/vapors/mists with a water spray jet.<br>For large spills, provide diking or other appropriate containment to keep material from spreading. If diked material can be pumped, store recovered material in appropriate container.<br>Clean up remaining materials from spill with suitable absorbent.<br>Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to determine which regulations are applicable.<br>Sections 13 and 15 of this SDS provide information regarding certain local or national requirements. |

## SECTION 7. HANDLING AND STORAGE

| | | |
|---|---|---|
| Technical measures | : | See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section. |
| Local/Total ventilation | : | If sufficient ventilation is unavailable, use with local exhaust ventilation. |
| Advice on safe handling | : | Do not get on skin or clothing. |

Do not breathe mist or vapors.
Do not swallow.
Do not get in eyes.
Wash skin thoroughly after handling.
Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure assessment
Keep container tightly closed.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Take precautionary measures against static discharges.
Do not eat, drink or smoke when using this product.
Take care to prevent spills, waste and minimize release to the environment.

Conditions for safe storage : Keep in properly labeled containers.
Store locked up.
Keep tightly closed.
Keep in a cool, well-ventilated place.
Store in accordance with the particular national regulations.
Keep away from heat and sources of ignition.

Materials to avoid : Do not store with the following product types:
Strong oxidizing agents
Self-reactive substances and mixtures
Organic peroxides
Explosives
Gases

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Ingredients with workplace control parameters**

| Components | CAS-No. | Value type (Form of exposure) | Control parameters / Permissible concentration | Basis |
|---|---|---|---|---|
| N,N-Dimethylformamide | 68-12-2 | CMP | 10 ppm | AR OEL |
| | Further information: A4 - Not classifiable as a human carcinogen, Skin | | | |
| | | TWA | 5 ppm | ACGIH |
| Embutramide | 15687-14-6 | TWA | 10 µg/m3 (OEB 3) | Internal |
| | | STEL | 30 µg/m3 | Internal |
| | | Wipe limit | 100 µg/100 cm² | Internal |
| Mebezonium iodide | 7681-78-9 | TWA | 1 µg/m3 (OEB 4) | Internal |
| | | STEL | 3 µg/m3 (OEB 4) | Internal |
| tetracaine hydrochloride | 136-47-0 | TWA | 5 µg/m3 (OEB 4) | Internal |
| | Further information: DSEN, Skin | | | |
| | | Wipe limit | 50 µg/100 cm² | Internal |

**Biological occupational exposure limits**

| Components | CAS-No. | Control parameters | Biological specimen | Sampling time | Permissible concentration | Basis |
|---|---|---|---|---|---|---|

| | | | | | | |
|---|---|---|---|---|---|---|
| N,N-Dimethylformamide | 68-12-2 | N-methylformamide | Urine | End of shift | 15 mg/l | AR BEI |
| | | N-acetyl-S-(N-methylcarbamoyl) cisteine | Urine | Prior to last shift of work-week | 40 mg/l | AR BEI |
| | | Total N-Methylformamide | Urine | End of shift (As soon as possible after exposure ceases) | 30 mg/l | ACGIH BEI |
| | | N-Acetyl-S-(N-methylcarbamoyl) cysteine | Urine | End of shift at end of work-week | 30 mg/l | ACGIH BEI |

**Engineering measures** : All engineering controls should be implemented by facility design and operated in accordance with GMP principles to protect products, workers, and the environment.
Essentially no open handling permitted.
Use closed processing systems or containment technologies.
If handled in a laboratory, use a properly designed biosafety cabinet, fume hood, or other containment device if the potential exists for aerosolization. If this potential does not exist, handle over lined trays or benchtops.

**Personal protective equipment**

Respiratory protection : If adequate local exhaust ventilation is not available or exposure assessment demonstrates exposures outside the recommended guidelines, use respiratory protection.

Filter type : Combined particulates, ammonia/amines and organic vapor type

Hand protection

Material : Chemical-resistant gloves

Remarks : Consider double gloving. Take note that the product is flammable, which may impact the selection of hand protection.

Eye protection : Wear safety glasses with side shields or goggles.
If the work environment or activity involves dusty conditions, mists or aerosols, wear the appropriate goggles.
Wear a faceshield or other full face protection if there is a potential for direct contact to the face with dusts, mists, or aerosols.

Skin and body protection : Work uniform or laboratory coat.
Additional body garments should be used based upon the task being performed (e.g., sleevelets, apron, gauntlets, disposable suits) to avoid exposed skin surfaces.

| | | |
|---|---|---|
| Hygiene measures | : | Use appropriate degowning techniques to remove potentially contaminated clothing.<br>If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the working place.<br>When using do not eat, drink or smoke.<br>Wash contaminated clothing before re-use.<br>The effective operation of a facility should include review of engineering controls, proper personal protective equipment, appropriate degowning and decontamination procedures, industrial hygiene monitoring, medical surveillance and the use of administrative controls. |

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

| | | |
|---|---|---|
| Appearance | : | liquid |
| Color | : | No data available |
| Odor | : | No data available |
| Odor Threshold | : | No data available |
| pH | : | 5 - 6 |
| Melting point/freezing point | : | No data available |
| Initial boiling point and boiling range | : | No data available |
| Flash point | : | 81 °C |
| Evaporation rate | : | No data available |
| Flammability (solid, gas) | : | Not applicable |
| Flammability (liquids) | : | Not applicable |
| Upper explosion limit / Upper flammability limit | : | No data available |
| Lower explosion limit / Lower flammability limit | : | No data available |
| Vapor pressure | : | No data available |
| Relative vapor density | : | No data available |
| Relative density | : | No data available |
| Density | : | No data available |
| Solubility(ies) | | |

| | | |
|---|---|---|
| Water solubility | : | soluble |
| Partition coefficient: n-octanol/water | : | No data available |
| Autoignition temperature | : | No data available |
| Decomposition temperature | : | No data available |
| Viscosity | | |
| Viscosity, kinematic | : | No data available |
| Explosive properties | : | Not explosive |
| Oxidizing properties | : | The substance or mixture is not classified as oxidizing. |
| Molecular weight | : | Not applicable |
| Particle size | : | Not applicable |

## SECTION 10. STABILITY AND REACTIVITY

| | | |
|---|---|---|
| Reactivity | : | Not classified as a reactivity hazard. |
| Chemical stability | : | Stable under normal conditions. |
| Possibility of hazardous reactions | : | Combustible liquid.<br>Vapors may form explosive mixture with air.<br>Can react with strong oxidizing agents. |
| Conditions to avoid | : | Heat, flames and sparks. |
| Incompatible materials | : | Oxidizing agents |
| Hazardous decomposition products | : | No hazardous decomposition products are known. |

## SECTION 11. TOXICOLOGICAL INFORMATION

| | | |
|---|---|---|
| Information on likely routes of exposure | : | Inhalation<br>Skin contact<br>Ingestion<br>Eye contact |

**Acute toxicity**

Harmful if swallowed, in contact with skin or if inhaled.

**Product:**

| | | |
|---|---|---|
| Acute oral toxicity | : | Acute toxicity estimate: 1.224 mg/kg<br>Method: Calculation method |
| Acute inhalation toxicity | : | Acute toxicity estimate: 19,41 mg/l<br>Exposure time: 4 h<br>Test atmosphere: vapor<br>Method: Calculation method |
| Acute dermal toxicity | : | Acute toxicity estimate: 1.942 mg/kg |

Method: Calculation method

**Components:**

**N,N-Dimethylformamide:**

| | | |
|---|---|---|
| Acute oral toxicity | : | LD50 (Rat): 3.010 mg/kg |
| Acute inhalation toxicity | : | Acute toxicity estimate: 11 mg/l<br>Exposure time: 4 h<br>Test atmosphere: vapor<br>Method: Expert judgment<br>Remarks: Based on national or regional regulation. |
| Acute dermal toxicity | : | Acute toxicity estimate: 1.100 mg/kg<br>Method: Expert judgment<br>Remarks: Based on national or regional regulation. |

**Embutramide:**

| | | |
|---|---|---|
| Acute oral toxicity | : | LD50 (Rat): 1.550 mg/kg |
| Acute toxicity (other routes of administration) | : | LD50 (Dog): 31 mg/kg<br>Application Route: Intravenous<br><br>TDLo (Dog): 15,5 mg/kg<br>Application Route: Intravenous<br>Symptoms: narcosis<br><br>LD50 (Horse): 20 mg/kg<br>Application Route: Intravenous<br><br>LD50 (sheep): 80 mg/kg<br>Application Route: Intravenous<br><br>LD50 (Pig): 100 mg/kg<br>Application Route: Intravenous |

**Mebezonium iodide:**

| | | |
|---|---|---|
| Acute oral toxicity | : | LD50 (Rat, female): 200 - 300 mg/kg |
| Acute toxicity (other routes of administration) | : | LC50 (Dog): 15 mg/kg<br>Application Route: Intravenous |

**tetracaine hydrochloride:**

| | | |
|---|---|---|
| Acute toxicity (other routes of administration) | : | LD50 (Rat): 6 mg/kg<br>Application Route: Intravenous<br><br>LD50 (Mouse): 6 mg/kg<br>Application Route: Intravenous |

**Skin corrosion/irritation**

Not classified based on available information.

**Components:**

**N,N-Dimethylformamide:**

| | | |
|---|---|---|
| Species | : | Rabbit |
| Result | : | No skin irritation |

**Serious eye damage/eye irritation**

Causes serious eye irritation.

**Components:**

**N,N-Dimethylformamide:**

| | | |
|---|---|---|
| Species | : | Rabbit |
| Result | : | Irritation to eyes, reversing within 21 days |

**Respiratory or skin sensitization**

**Skin sensitization**

Not classified based on available information.

**Respiratory sensitization**

Not classified based on available information.

**Components:**

**N,N-Dimethylformamide:**

| | | |
|---|---|---|
| Test Type | : | Local lymph node assay (LLNA) |
| Routes of exposure | : | Skin contact |
| Species | : | Mouse |
| Result | : | negative |

**tetracaine hydrochloride:**

| | | |
|---|---|---|
| Routes of exposure | : | Dermal |
| Result | : | Sensitizer |

**Germ cell mutagenicity**

Not classified based on available information.

**Components:**

**N,N-Dimethylformamide:**

| | | |
|---|---|---|
| Genotoxicity in vitro | : | Test Type: Bacterial reverse mutation assay (AMES)<br>Result: negative<br><br>Test Type: In vitro mammalian cell gene mutation test<br>Result: negative<br><br>Test Type: Chromosome aberration test in vitro<br>Result: negative |

| | | |
|---|---|---|
| | | Test Type: DNA damage and repair, unscheduled DNA synthesis in mammalian cells (in vitro)<br>Result: negative |
| Genotoxicity in vivo | : | Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)<br>Species: Mouse<br>Application Route: Intraperitoneal injection<br>Result: negative<br><br>Test Type: Rodent dominant lethal test (germ cell) (in vivo)<br>Species: Rat<br>Application Route: inhalation (vapor)<br>Result: negative<br><br>Test Type: Rodent dominant lethal test (germ cell) (in vivo)<br>Species: Mouse<br>Application Route: Intraperitoneal injection<br>Result: negative |

**tetracaine hydrochloride:**

| | | |
|---|---|---|
| Genotoxicity in vitro | : | Test Type: Bacterial reverse mutation assay (AMES)<br>Result: negative<br><br>Test Type: Chromosomal aberration<br>Result: equivocal |
| Genotoxicity in vivo | : | Test Type: Micronucleus test<br>Species: Rat<br>Result: negative |

**Carcinogenicity**

Not classified based on available information.

**Components:**

**N,N-Dimethylformamide:**

| | | |
|---|---|---|
| Species | : | Rat |
| Application Route | : | inhalation (vapor) |
| Exposure time | : | 2 Years |
| Method | : | OECD Test Guideline 451 |
| Result | : | negative |

| | | |
|---|---|---|
| Species | : | Mouse |
| Application Route | : | inhalation (vapor) |
| Exposure time | : | 18 Months |
| Method | : | OECD Test Guideline 451 |
| Result | : | negative |

**Reproductive toxicity**

May damage the unborn child.

**Components:**

**N,N-Dimethylformamide:**

| | | |
|---|---|---|
| Effects on fertility | : | Test Type: Two-generation study<br>Species: Mouse<br>Application Route: Ingestion<br>Result: negative<br><br>Test Type: One-generation reproduction toxicity study<br>Species: Rat<br>Application Route: Skin contact<br>Result: negative |
| Effects on fetal development | : | Test Type: Embryo-fetal development<br>Species: Rabbit<br>Application Route: inhalation (vapor)<br>Method: OECD Test Guideline 414<br>Result: positive<br><br>Test Type: Embryo-fetal development<br>Species: Rabbit<br>Application Route: Skin contact<br>Method: OECD Test Guideline 414<br>Result: positive |
| Reproductive toxicity - Assessment | : | Clear evidence of adverse effects on development, based on animal experiments. |

**tetracaine hydrochloride:**

| | | |
|---|---|---|
| Effects on fertility | : | Test Type: Fertility<br>Species: Rat, male and female<br>Application Route: Subcutaneous<br>Fertility: NOAEL: 7,5 mg/kg body weight<br>Result: No effects on fertility. |
| Effects on fetal development | : | Test Type: Development<br>Species: Rat<br>Application Route: Subcutaneous<br>Developmental Toxicity: NOAEL: 5 mg/kg body weight<br>Result: No teratogenic effects.<br><br>Test Type: Development<br>Species: Rabbit<br>Application Route: Subcutaneous<br>Developmental Toxicity: NOAEL: 10 mg/kg body weight<br>Result: No teratogenic effects. |

**STOT-single exposure**

May cause drowsiness or dizziness.

**Components:**

**Embutramide:**

| | | |
|---|---|---|
| Assessment | : | May cause drowsiness or dizziness. |

**Mebezonium iodide:**

| | | |
|---|---|---|
| Target Organs | : | Nervous system, muscle |
| Assessment | : | May cause damage to organs. |

**tetracaine hydrochloride:**

| | | |
|---|---|---|
| Target Organs | : | Central nervous system, Cardio-vascular system |
| Assessment | : | Causes damage to organs. |

**STOT-repeated exposure**

Not classified based on available information.

**Repeated dose toxicity**

**Components:**

**N,N-Dimethylformamide:**

| | | |
|---|---|---|
| Species | : | Rat |
| NOAEL | : | 238 mg/kg |
| LOAEL | : | 475 mg/kg |
| Application Route | : | Ingestion |
| Exposure time | : | 28 Days |

| | | |
|---|---|---|
| Species | : | Rat |
| NOAEL | : | 0,08 mg/l |
| LOAEL | : | 0,3 mg/l |
| Application Route | : | inhalation (vapor) |
| Exposure time | : | 2 y |

**Aspiration toxicity**

Not classified based on available information.

**Experience with human exposure**

**Components:**

**Embutramide:**

| | | |
|---|---|---|
| Inhalation | : | Target Organs: Central nervous system<br>Symptoms: Drowsiness, Central nervous system depression, muscle weakness, Shortness of breath |

**Mebezonium iodide:**

| | | |
|---|---|---|
| Inhalation | : | Symptoms: Weakness, Fatigue, Breathing difficulties |

**tetracaine hydrochloride:**

| | | |
|---|---|---|
| Inhalation | : | Target Organs: Cardio-vascular system<br>Target Organs: Central nervous system<br>Symptoms: Central nervous system depression, Dizziness, |

| | | |
|---|---|---|
| | | Headache, hypotension, Vomiting |
| Skin contact | : | Symptoms: Redness, pruritis |

## SECTION 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

**Components:**

**N,N-Dimethylformamide:**

| | | |
|---|---|---|
| Toxicity to fish | : | LC50 (Lepomis macrochirus (Bluegill sunfish)): 7.100 mg/l<br>Exposure time: 96 h |
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (Daphnia magna (Water flea)): 13.100 mg/l<br>Exposure time: 48 h<br>Method: OECD Test Guideline 202 |
| Toxicity to algae/aquatic plants | : | ErC50 (Desmodesmus subspicatus (green algae)): > 1.000 mg/l<br>Exposure time: 72 h<br><br>EC10 (Desmodesmus subspicatus (green algae)): > 1.000 mg/l<br>Exposure time: 72 h |
| Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) | : | NOEC (Daphnia magna (Water flea)): 1.500 mg/l<br>Exposure time: 21 d |

**Embutramide:**

| | | |
|---|---|---|
| Toxicity to fish | : | LC50 : 21 mg/l<br>Exposure time: 96 h<br>Method: OECD Test Guideline 203 |
| Toxicity to microorganisms | : | EC50: > 1.000 mg/l<br>Exposure time: 24 h<br>Test Type: Respiration inhibition of activated sludge<br>Method: OECD Test Guideline 209 |

**Persistence and degradability**

**Components:**

**N,N-Dimethylformamide:**

| | | |
|---|---|---|
| Biodegradability | : | Result: Readily biodegradable.<br>Biodegradation: 100 %<br>Exposure time: 21 d<br>Method: OECD Test Guideline 301E |

**Bioaccumulative potential**

**Components:**

**N,N-Dimethylformamide:**

| | | |
|---|---|---|
| Bioaccumulation | : | Species: Cyprinus carpio (Carp)<br>Bioconcentration factor (BCF): 0,3 - 1,2<br>Method: OECD Test Guideline 305C |
| Partition coefficient: n-octanol/water | : | log Pow: -0,93<br>Remarks: Calculation |

**Mobility in soil**

No data available

**Other adverse effects**

No data available

## SECTION 13. DISPOSAL CONSIDERATIONS

**Disposal methods**

| | | |
|---|---|---|
| Waste from residues | : | Dispose of in accordance with local regulations.<br>Do not dispose of waste into sewer. |
| Contaminated packaging | : | Empty containers should be taken to an approved waste handling site for recycling or disposal.<br>Empty containers retain residue and can be dangerous.<br>Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition. They may explode and cause injury and/or death.<br>If not otherwise specified: Dispose of as unused product. |

## SECTION 14. TRANSPORT INFORMATION

**International Regulations**

**UNRTDG**
Not regulated as a dangerous good

**IATA-DGR**
Not regulated as a dangerous good

**IMDG-Code**
Not regulated as a dangerous good

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable for product as supplied.

**Special precautions for user**

Not applicable

## SECTION 15. REGULATORY INFORMATION

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

Argentina. Carcinogenic Substances and Agents Registry. : Not applicable

Control of precursors and essential chemicals for the preparation of drugs. : Not applicable

**The ingredients of this product are reported in the following inventories:**

AICS : not determined

DSL : not determined

IECSC : not determined

## SECTION 16. OTHER INFORMATION

Revision Date : 04.04.2023
Date format : dd.mm.yyyy

**Further information**

Sources of key data used to compile the Material Safety Data Sheet : Internal technical data, data from raw material SDSs, OECD eChem Portal search results and European Chemicals Agency, http://echa.europa.eu/

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

**Full text of other abbreviations**

ACGIH : USA. ACGIH Threshold Limit Values (TLV)
ACGIH BEI : ACGIH - Biological Exposure Indices (BEI)
AR BEI : Argentina. Biological Exposure Indices
AR OEL : Argentina. Occupational Exposure Limits

ACGIH / TWA : 8-hour, time-weighted average
AR OEL / CMP : TLV (Threshold Limit Value)

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and

Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user’s end product, if applicable.

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