#### Printing date 07/18/2021

Reviewed on 07/18/2021

## **1** Identification

- · Product name
- · Trade name: 1,3-Bis(2,6-di-i-propylphenyl)-4,5-dihydroimidazol-2-ylidine, min. 98%
- · Item number: 07-0593
- CAS Number: 258278-28-3
- · Details of the supplier of the safety data sheet
- Manufacturer/Supplier: Strem Chemicals, Inc.
   7 Mulliken Way NEWBURYPORT, MA 01950 USA info@strem.com
- Information department: Technical Department
   Emergency telephone number: EMERGENCY: CHEMTREC: +1 (800) 424-9300 During normal opening times: +1 (978) 499-1600

## 2 Hazard(s) identification

· Classification of the substance or mixture



Flam. Sol. 1 H228 Flammable solid.



Skin Irrit. 2H315Causes skin irritation.Eye Irrit. 2AH319Causes serious eye irritation.STOT SE 3H335May cause respiratory irritation.

· Label elements

- · GHS label elements
- *The substance is classified and labeled according to the Globally Harmonized System (GHS).* • *Hazard pictograms*



· Signal word Danger

Hazard-determining components of labeling: 1,3-Bis(2,6-di-i-propylphenyl)-4,5-dihydroimidazol-2-ylidine, min. 98%
Hazard statements H228 Flammable solid. H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May cause respiratory irritation.

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| regulations.Classification system:VFPA ratings (scale 0 - 4)Health = 1<br>Fire = 2<br>Reactivity = 0HMIS-ratings (scale 0 - 4)HEALTH 1<br>FIRE 0<br>REACTIVITY 0Health = 1<br>Fire = 0<br>Reactivity = 0  | H  |   |
|---|--|---|
| 2210Keep away from heat/sparks/open flames/hot surfaces. No smoking.2301+P310IF SWALLOWED: Immediately call a POISON CENTER/ doctor.2305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses,<br>and easy to do. Continue rinsing.2403+P233Store in a well-ventilated place. Keep container tightly closed.2501Dispose of contents/container in accordance with local/regional/national/into<br>regulations.2403+P233Store in a well-ventilated place. Keep container tightly closed.2501Dispose of contents/container in accordance with local/regional/national/into<br>regulations.2403+P230Health = 1<br>Fire = 2<br>Reactivity = 02403+P231Health = 1<br>Fire = 0<br>Fire = 0<br>REACTIVITY 01Health = 1<br>Fire = 0<br>Reactivity = 0                    |  |   |
| P301+P310IF SWALLOWED: Immediately call a POISON CENTER/ doctor.P305+P351+P338If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses,<br>and easy to do. Continue rinsing.P403+P233Store in a well-ventilated place. Keep container tightly closed.P501Dispose of contents/container in accordance with local/regional/national/interegulations.P403+P233Store in a well-ventilated place. Keep container tightly closed.P501Dispose of contents/container in accordance with local/regional/national/interegulations.P403+P235Fire = 0P403+P235Health = 1Fire = 0Fire = 0REACTIVITY 0Reactivity = 0  | ĸ  | 0   |
| P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses,and easy to do. Continue rinsing. $P403+P233 Store in a well-ventilated place. Keep container tightly closed.Dispose of contents/container in accordance with local/regional/national/interegulations.Classification system:WFPA ratings (scale 0 - 4)Health = 1Fire = 2Reactivity = 0HINS-ratings (scale 0 - 4)HEALTH 1FIRE 0REACTIVITY 0Reactivity = 0$   |  |   |
| P403+P233Store in a well-ventilated place. Keep container tightly closed.<br>Dispose of contents/container in accordance with local/regional/national/inte<br>regulations.P403+P233Store in a well-ventilated place. Keep container tightly closed.<br>Dispose of contents/container in accordance with local/regional/national/inte<br>regulations.P403+P233For end of contents/container in accordance with local/regional/national/inte<br>regulations.P501Pispose of contents/container in accordance with local/regional/national/inte<br>regulations.P403+P233Pispose of contents/container in accordance with local/regional/national/inte<br>regulations.P403-P20Health = 1<br>Fire = 2<br>Reactivity = 0P404Path = 1<br>Fire = 0<br>Reactivity = 0P405Health = 1<br>Fire = 0<br>Reactivity = 0 |  |   |
| 2501 Dispose of contents/container in accordance with local/regional/national/interegulations.<br>Classification system:<br>WFPA ratings (scale $0 - 4$ )<br>Health = 1<br>Fire = 2<br>Reactivity = 0<br>HMIS-ratings (scale $0 - 4$ )<br>HEALTH 1<br>Health = 1<br>FIRE 0<br>REACTIVITY 0<br>Reactivity = 0  | a  | nd easy to do. Continue rinsing.  |
| regulations.Classification system:VFPA ratings (scale 0 - 4)Health = 1<br>Fire = 2<br>Reactivity = 0HMIS-ratings (scale 0 - 4)HEALTH 1<br>FIRE 0<br>REACTIVITY 0Health = 1<br>Fire = 0<br>Reactivity = 0  |  |   |
| Classification system:<br><b>NFPA ratings (scale 0 - 4)</b><br>Health = 1<br>Fire = 2<br>Reactivity = 0<br><b>IMIS-ratings (scale 0 - 4)</b><br>HEALTH 1<br>Health = 1<br>FIRE 0<br>REACTIVITY 0<br>Reactivity = 0  |  | ispose of contents/container in accordance with local/regional/national/internation |
| $FPA \ ratings \ (scale \ 0 - 4)$ $Health = 1$ $Fire = 2$ $Reactivity = 0$ $HIIS-ratings \ (scale \ 0 - 4)$ $Health = 1$ $FIRE \ 0$ $Reactivity = 0$ $Reactivity = 0$   |  |   |
| Health = 1<br>Fire = 2<br>Reactivity = 0<br><b>IMIS-ratings (scale 0 - 4)</b><br>HEALTH 1<br>FIRE 0<br>REACTIVITY 0<br>Reactivity = 0   |  |   |
| Fire = 2<br>Reactivity = 0<br><b>IMIS-ratings (scale 0 - 4)</b><br><b>HEALTH</b> 1<br><b>Health</b> = 1<br>FIRE 0<br><b>REACTIVITY</b> 0<br><b>REACTIVITY</b> 0   | ratings (scale   | 0 - 4)  |
| Other hazards<br>Results of PBT and vPvB assessment<br>PBT: Not applicable.<br>PvB: Not applicable.   | Image: organized field     Image: orga                                     | vity = 0 <b>PvB</b> assessment  |
| Composition/information on ingredients  | ts of PBT and where the second s |   |
| Chemical characterization: Substances   | <b>ts of PBT and w</b><br>Not applicable.<br>Not applicable  |   |
|   | ts of PBT and w<br>Not applicable<br>Not applicable<br>position/info   | rmation on ingredients  |
| CAS No. Description   | ts of PBT and v<br>Not applicable<br>Not applicable<br>position/info<br>ical characteriz   | rmation on ingredients<br>ation: Substances   |

#### 4 First-aid measures

- · Description of first aid measures
- · General information: Immediately remove any clothing soiled by the product.
- After inhalation: In case of unconsciousness place patient stably in side position for transportation.
- After skin contact: Immediately wash with water and soap and rinse thoroughly.
- · After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- After swallowing: If symptoms persist consult doctor.
- Information for doctor:
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed
- No further relevant information available.

#### **5** Fire-fighting measures

- · Extinguishing media
- Suitable extinguishing agents: Use fire fighting measures that suit the environment.

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- Special hazards arising from the substance or mixture No further relevant information available.
- · Advice for firefighters
- · Protective equipment: No special measures required.

#### 6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures Wear protective equipment. Keep unprotected persons away.
- Environmental precautions: No special measures required. • Methods and material for containment and cleaning up:
- Dispose contaminated material as waste according to item 13. Ensure adequate ventilation.
- · Reference to other sections
- See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.
- See Section 13 for disposal information.
- · Protective Action Criteria for Chemicals

• PAC-1:

Substance is not listed.

- PAC-2:
- Substance is not listed.
- · PAC-3:
- Substance is not listed.

#### 7 Handling and storage

- · Handling: Handle under inert gas.
- · Precautions for safe handling Ensure good ventilation/exhaustion at the workplace.
- · Information about protection against explosions and fires:
- Keep ignition sources away Do not smoke. Protect against electrostatic charges.
- · Conditions for safe storage, including any incompatibilities
- · Storage:
- Keep cool.
- Store contents under inert gas.
- · Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions:
- Keep receptacle tightly sealed.
- Store in cool, dry conditions in well sealed receptacles.
- Recommended storage temperature: Store at temperatures not exceeding -18 °C. Keep cool.
- $\cdot$  Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

• Additional information about design of technical systems: No further data; see item 7.

· Control parameters

· Components with limit values that require monitoring at the workplace: Not required.

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|   | (Contd. of page  |
|---|--|
| Additional information: The lists the   | hat were valid during the creation were used as basis.   |
| Exposure controls   |  |
| Personal protective equipment:  |  |
| General protective and hygienic m   |  |
| Keep away from foodstuffs, beverag  |  |
| Immediately remove all soiled and   |  |
| Wash hands before breaks and at the Avoid contact with the eyes and skin  |  |
|   | <i>pproved respirator in accordance with 29 CFR</i> 1910.134.  |
| Protection of hands:  |  |
| (M)   |  |
| Protective gloves   |  |
|   |  |
|   | neable and resistant to the product/ the substance/ the preparation.   |
|   | lation to the glove material can be given for the product/ the preparation/ t  |
| chemical mixture.   | ansideration of the nonstration times rates of diffusion and the desured ation   |
| Material of gloves  | onsideration of the penetration times, rates of diffusion and the degradation  |
|   | does not only depend on the material, but also on further marks of quality as  |
| varies from manufacturer to manufa  |  |
| Penetration time of glove material  |  |
|   | to be found out by the manufacturer of the protective gloves and has to a  |
|   | to be jound out by the manufacturer of the protective gloves and has to  |
| observed.   | to be jound out by the manufacturer of the protective gloves and has to  |
| observed.<br>Eye protection:  | to be jound out by the manufacturer of the protective gloves and has to t  |
| observed.<br><b>Eye protection:</b><br>Tightly sealed goggles   |  |
| observed.<br><b>Eye protection:</b><br>Tightly sealed goggles   |  |
| observed.<br>Eye protection:<br>Tightly sealed goggles<br>Physical and chemical proper<br>Information on basic physical and   | rties  |
| observed.<br>Eye protection:<br>Tightly sealed goggles<br>Physical and chemical proper<br>Information on basic physical and<br>General Information  | rties  |
| observed.<br>Eye protection:<br>Tightly sealed goggles<br>Physical and chemical proper<br>Information on basic physical and<br>General Information  | rties  |
| observed.<br>Eye protection:<br>Tightly sealed goggles<br>Physical and chemical prope<br>Information on basic physical and<br>General Information<br>Appearance:  | rties<br>chemical properties   |
| observed.<br>Eye protection:<br>Tightly sealed goggles<br>Physical and chemical prope<br>Information on basic physical and<br>General Information<br>Appearance:<br>Form:<br>Color:   | rties<br>chemical properties<br>Powder   |
| observed.<br>Eye protection:<br>Tightly sealed goggles<br>Physical and chemical prope<br>Information on basic physical and<br>General Information<br>Appearance:<br>Form:   | rties<br>chemical properties<br>Powder<br>Whitish  |
| observed.<br>Eye protection:<br>Tightly sealed goggles<br>Physical and chemical prope<br>Information on basic physical and<br>General Information<br>Appearance:<br>Form:<br>Color:<br>Odor:<br>Odor threshold:   | rties<br>chemical properties<br>Powder<br>Whitish<br>Odorless  |
| observed.<br>Eye protection:<br>Tightly sealed goggles<br>Physical and chemical proper<br>Information on basic physical and<br>General Information<br>Appearance:<br>Form:<br>Color:<br>Odor:<br>Odor threshold:<br>pH-value:<br>Change in condition  | rties<br>chemical properties<br>Powder<br>Whitish<br>Odorless<br>Not determined.<br>Not applicable.  |
| observed.<br>Eye protection:<br>Tightly sealed goggles<br>Physical and chemical proper<br>Information on basic physical and<br>General Information<br>Appearance:<br>Form:<br>Color:<br>Odor:<br>Odor:<br>Odor threshold:<br>pH-value:<br>Change in condition<br>Melting point/Melting range:   | rties<br>chemical properties<br>Powder<br>Whitish<br>Odorless<br>Not determined.<br>Not applicable.<br>Undetermined.                                     |
| observed.<br>Eye protection:<br>Tightly sealed goggles<br>Physical and chemical proper<br>Information on basic physical and<br>General Information<br>Appearance:<br>Form:<br>Color:<br>Odor:<br>Odor:<br>Odor threshold:<br>pH-value:<br>Change in condition<br>Melting point/Melting range:<br>Boiling point/Boiling range:   | rties<br>chemical properties<br>Powder<br>Whitish<br>Odorless<br>Not determined.<br>Not applicable.<br>Undetermined.<br>Undetermined.                    |
| observed.<br>Eye protection:<br>Tightly sealed goggles<br>Physical and chemical prope<br>Information on basic physical and<br>General Information<br>Appearance:<br>Form:<br>Color:<br>Odor:<br>Odor threshold:<br>pH-value:<br>Change in condition<br>Melting point/Melting range:<br>Boiling point/Boiling range:<br>Flash point:   | rties<br>chemical properties<br>Powder<br>Whitish<br>Odorless<br>Not determined.<br>Not applicable.<br>Undetermined.<br>Undetermined.<br>Not applicable. |
| observed.<br>Eye protection:<br>Tightly sealed goggles<br>Physical and chemical proper<br>Information on basic physical and<br>General Information<br>Appearance:<br>Form:<br>Color:<br>Odor:<br>Odor:<br>Odor threshold:<br>pH-value:<br>Change in condition<br>Melting point/Melting range:<br>Boiling point/Boiling range:<br>Flash point:<br>Flammability (solid, gaseous): | rties<br>chemical properties<br>Powder<br>Whitish<br>Odorless<br>Not determined.<br>Not applicable.<br>Undetermined.<br>Undetermined.                    |
| observed.<br>Eye protection:<br>Tightly sealed goggles<br>Physical and chemical prope<br>Information on basic physical and<br>General Information<br>Appearance:<br>Form:<br>Color:<br>Odor:<br>Odor threshold:<br>pH-value:<br>Change in condition<br>Melting point/Melting range:<br>Boiling point/Boiling range:<br>Flash point:   | rties<br>chemical properties<br>Powder<br>Whitish<br>Odorless<br>Not determined.<br>Not applicable.<br>Undetermined.<br>Undetermined.<br>Not applicable. |

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#### Trade name: 1,3-Bis(2,6-di-i-propylphenyl)-4,5-dihydroimidazol-2-ylidine, min. 98%

|                                  |  | (Contd. of page |
|----------------------------------|--|-----------------|
| Auto igniting:                   | Not determined.                            |                 |
| Danger of explosion:             | Not determined.                            |                 |
| Explosion limits:                |  |                 |
| Lower:                           | Not determined.                            |                 |
| Upper:                           | Not determined.                            |                 |
| · Vapor pressure:                | Not applicable.                            |                 |
| Density:                         | Not determined.                            |                 |
| Relative density                 | Not determined.                            |                 |
| Vapor density                    | Not applicable.                            |                 |
| Evaporation rate                 | Not applicable.                            |                 |
| Solubility in / Miscibility with |  |                 |
| Water:                           | Insoluble.                                 |                 |
| Partition coefficient (n-octano  | l/water): Not determined.                  |                 |
| Viscosity:                       |  |                 |
| Dynamic:                         | Not applicable.                            |                 |
| Kinematic:                       | Not applicable.                            |                 |
| Solvent content:                 |  |                 |
| Organic solvents:                | 0.0 %                                      |                 |
| VOC content:                     | 0.0 g/l / 0.00 lb/gl                       |                 |
| Solids content:                  | 100.0 %                                    |                 |
| • Other information              | No further relevant information available. |                 |

# **10 Stability and reactivity**

· Reactivity No further relevant information available.

· Chemical stability

• Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

#### **11 Toxicological information**

- · Information on toxicological effects
- · Acute toxicity:
- · Primary irritant effect:
- on the skin: Irritant to skin and mucous membranes.
- on the eye: Irritating effect.
- · Sensitization: No sensitizing effects known.
- · Additional toxicological information:

· Carcinogenic categories

#### · IARC (International Agency for Research on Cancer)

Substance is not listed.

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Trade name: 1,3-Bis(2,6-di-i-propylphenyl)-4,5-dihydroimidazol-2-ylidine, min. 98%

(Contd. of page 5)

- $\cdot$  NTP (National Toxicology Program)
- Substance is not listed.
- · OSHA-Ca (Occupational Safety & Health Administration)
- Substance is not listed.

#### **12 Ecological information**

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes: Not known to be hazardous to water.
- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · **vPvB:** Not applicable.
- · Other adverse effects No further relevant information available.

#### **13 Disposal considerations**

- Waste treatment methods
- · Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packagings:
- · Recommendation: Disposal must be made according to official regulations.

| UN-Number                 |  |
|---------------------------|--|
| DOT, IMDG, IATA           | UN1325   |
| · UN proper shipping name |  |
| -DOT                      | Flammable solids, organic, n.o.s.  |
| · IMDG, IATA              | FLAMMABLE SOLID, ORGANIC, N.O.S.   |
|                           |  |
| · Class                   | 4.1 Flammable solids, self-reactive substances and sol desensitised explosives |

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## Safety Data Sheet according to OSHA HCS

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| Trade name: 1,3-Bis(2,6-di-i-propylphenyl)-4,5-dihydroimidazol-2-ylidine, min. 98% |     |  |
|--|-----|--|
|  |     |  |
| · Label  | 4.1 |  |

| - Label                              | 4.1  |
|--------------------------------------|--|
| · IMDG                               |  |
|                                      |  |
| - Class                              | 4  |
| · Label                              | 4.1  |
| ·IATA                                |  |
|                                      |  |
| · Class                              | 4.1 Flammable solids, self-reactive substances and solid desensitised explosives |
| · Label                              | 4.1  |
| Packing group<br>DOT, IMDG, IATA     | II   |
| Environmental hazards:               |  |
| Marine pollutant:                    | No   |
| Special precautions for user         | Not applicable.  |
| EMS Number:                          | F-A,S-G  |
| · Stowage Category                   | В  |
| Transport in bulk according to Anne. | x II of  |
| MARPOL73/78 and the IBC Code         | Not applicable.  |
| Transport/Additional information:    |  |
| DOT                                  |  |
| Quantity limitations                 | On passenger aircraft/rail: 15 kg  |
|                                      | On cargo aircraft only: 50 kg  |
| UN "Model Regulation":               | UN 1325 FLAMMABLE SOLIDS, ORGANIC, N.O.S., 4.1, II                               |

# **15 Regulatory information**

 $\cdot$  Safety, health and environmental regulations/legislation specific for the substance or mixture  $\cdot$  Sara

· Section 355 (extremely hazardous substances):

Substance is not listed.

· Section 313 (Specific toxic chemical listings):

Substance is not listed.

· TSCA (Toxic Substances Control Act):

Substance is not listed.

· Proposition 65

 $\cdot$  Chemicals known to cause cancer:

Substance is not listed.

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· Chemicals known to cause reproductive toxicity for females:

Substance is not listed.

· Chemicals known to cause reproductive toxicity for males:

Substance is not listed.

· Chemicals known to cause developmental toxicity:

Substance is not listed.

· Carcinogenic categories

· EPA (Environmental Protection Agency)

Substance is not listed.

· TLV (Threshold Limit Value established by ACGIH)

Substance is not listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)

Substance is not listed.

· GHS label elements

*The substance is classified and labeled according to the Globally Harmonized System (GHS).* • *Hazard pictograms* 



· Signal word Danger

• *Hazard-determining components of labeling:* 1,3-Bis(2,6-di-i-propylphenyl)-4,5-dihydroimidazol-2-ylidine, min. 98%

• Hazard statements

H228 Flammable solid.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

· Precautionary statements

| • recautionary stat | tements  |
|---------------------|--|
| P231                | Handle under inert gas.  |
| P210                | Keep away from heat/sparks/open flames/hot surfaces. No smoking.                                 |
| P301+P310           | IF SWALLOWED: Immediately call a POISON CENTER/ doctor.  |
| P305+P351+P338      | 8 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present |
|                     | and easy to do. Continue rinsing.  |
| P403+P233           | Store in a well-ventilated place. Keep container tightly closed.                                 |
| P501                | Dispose of contents/container in accordance with local/regional/national/international           |
|                     | regulations.   |

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

#### **16 Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Department issuing SDS: Technical Department.

· Contact: Technical Director

· Date of preparation / last revision 07/18/2021 / -

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# Trade name: 1,3-Bis(2,6-di-i-propylphenyl)-4,5-dihydroimidazol-2-ylidine, min. 98%

| (Contd. of page 8)  |
|---|
| Abbreviations and acronyms:   |
| ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International |
| Carriage of Dangerous Goods by Road)  |
| IMDG: International Maritime Code for Dangerous Goods   |
| DOT: US Department of Transportation  |
| IATA: International Air Transport Association   |
| ACGIH: American Conference of Governmental Industrial Hygienists  |
| CAS: Chemical Abstracts Service (division of the American Chemical Society)   |
| NFPA: National Fire Protection Association (USA)  |
| HMIS: Hazardous Materials Identification System (USA)   |
| VOC: Volatile Organic Compounds (USA, EU)   |
| PBT: Persistent, Bioaccumulative and Toxic  |
| vPvB: very Persistent and very Bioaccumulative  |
| NIOSH: National Institute for Occupational Safety   |
| OSHA: Occupational Safety & Health  |
| TLV: Threshold Limit Value  |
| PEL: Permissible Exposure Limit   |
| REL: Recommended Exposure Limit   |
| Flam. Sol. 1: Flammable solids – Category 1   |
| Skin Irrit. 2: Skin corrosion/irritation – Category 2   |
| Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A  |
| STOT SE 3: Specific target organ toxicity (single exposure) – Category 3  |
| - US  |

