1 Identification

- **Product identifier**
- **Trade name:** Desloratadine
- **Synonym**
  - 8-chloro-6,11-dihydro-11-(4-piperidinylidene)-5H-benzo[5,6]cyclohepta[1,2-b]pyridine
  - Descarboethoxyloratadine
  - NSC 675447
  - SCH 34117
- **Article number:** 16931
- **CAS Number:** 100643-71-8
- **EC number:** 638-878-8
- **Application of the substance / the mixture** For research use only - not for human or veterinary use.
- **Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:** Cayman Chemical Co.
    1180 E. Ellsworth Rd.
    Ann Arbor, MI 48108
    USA
  - **Information department:** Product safety department
  - **Emergency telephone number:**
    During normal opening times: +1 (734) 971-3335
    US/CANADA: 800-424-9300
    Outside US/CANADA: 703-741-5970

2 Hazard(s) identification

- **Classification of the substance or mixture**
  - [GHS08 Health hazard](#)
    - Repr. 2 H361 Suspected of damaging fertility or the unborn child.
  - [GHS05 Corrosion](#)
    - Eye Dam. 1 H318 Causes serious eye damage.
  - [GHS09 Environment](#)
    - Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

(Contd. on page 2)
Trade name: Desloratadine

Acute Tox. 4 H302 Harmful if swallowed.
Aquatic Acute 2 H401 Toxic to aquatic life.

· Label elements
  · GHS label elements
    The substance is classified and labeled according to the Globally Harmonized System (GHS).
  · Hazard pictograms
    GHS05 GHS07 GHS08 GHS09

· Signal word Danger
· Hazard statements
  Harmful if swallowed.
  Causes serious eye damage.
  Suspected of damaging fertility or the unborn child.
  Toxic to aquatic life.
  Toxic to aquatic life with long lasting effects.

· Precautionary statements
  Obtain special instructions before use.
  Do not handle until all safety precautions have been read and understood.
  Wash thoroughly after handling.
  Do not eat, drink or smoke when using this product.
  Avoid release to the environment.
  Wear protective gloves/protective clothing/eye protection/face protection.
  If swallowed: Call a poison center/doctor if you feel unwell.
  Rinse mouth.
  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/doctor.
  IF exposed or concerned: Get medical advice/attention.
  Collect spillage.
  Store locked up.
  Dispose of contents/container in accordance with local/regional/national/international regulations.

· Classification system:
  · NFPA ratings (scale 0 - 4)
    Health = 3
    Fire = 0
    Reactivity = 0
  · HMIS-ratings (scale 0 - 4)
    HEALTH Health = *3
    FIRE Fire = 0
    REACTIVITY Reactivity = 0

· Other hazards
  · Results of PBT and vPvB assessment
  · PBT: Not applicable.
  · vPvB: Not applicable.

(Contd. from page 1)

(Contd. on page 3)
3 Composition/information on ingredients

· Chemical characterization: Substances
· CAS No. Description
  100643-71-8 Desloratadine
· Identification number(s)
  · EC number: 638-878-8

4 First-aid measures

· Description of first aid measures
· General information:
  Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
· After inhalation: Supply fresh air; consult doctor in case of complaints.
· After skin contact: Generally the product does not irritate the skin.
· After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
· After swallowing: Immediately call a doctor.
· Information for doctor:
  · Most important symptoms and effects, both acute and delayed
    May cause anemia, cough, CNS depression, drowsiness, headache, heart damage, lassitude (weakness, exhaustion), liver damage, narcosis, reproductive effects, teratogenic effects.
    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.
    A solid water stream may be inefficient.
  · 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:
  Inform respective authorities in case of seepage into water course or sewage system.
  Do not allow to enter sewers/ surface or ground water.
· Methods and material for containment and cleaning up:
  Use neutralizing agent.
  Dispose contaminated material as waste according to item 13.
· 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.

(Contd. from page 2)
51.0.2 · 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:
     · Precautions for safe handling: Thorough dedusting.
     · Information about protection against explosions and fires: No special measures required.
   · Conditions for safe storage, including any incompatibilities
     Keep container tightly closed.
     Store in accordance with information listed on the product insert.
   · Storage:
     · 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.
     · 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:
       The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.
       The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.
       At this time, the remaining constituent has no known exposure limits.
       At this time, the other constituents have no known exposure limits.
     · Additional information: The lists that were valid during the creation were used as basis.
   · Exposure controls
     · Personal protective equipment:
       · General protective and hygienic measures:
         Keep away from foodstuffs, beverages and feed.
         Immediately remove all soiled and contaminated clothing.
         Wash hands before breaks and at the end of work.
         Avoid contact with the eyes.
         Avoid contact with the eyes and skin.
       · Breathing equipment: Not required.
     · Protection of hands:
       Protective gloves
       The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
       Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
       Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

(Contd. on page 5)
Material of gloves
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Penetration time of glove material
The exact breakthrough time has to be found out by the manufacturer of the protective gloves and has to be observed.

Eye protection:
Tightly sealed goggles

### 9 Physical and chemical properties

<table>
<thead>
<tr>
<th>Information on basic physical and chemical properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Information</td>
</tr>
<tr>
<td>Appearance:</td>
</tr>
<tr>
<td>Form: Crystalline</td>
</tr>
<tr>
<td>Color: Not determined.</td>
</tr>
<tr>
<td>Odor: Characteristic</td>
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<tr>
<td>Structural Formula: C19H19ClN2</td>
</tr>
<tr>
<td>Molecular Weight: 310.8</td>
</tr>
<tr>
<td>Odor threshold: Not determined.</td>
</tr>
<tr>
<td>pH-value: Not applicable.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Change in condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting point/Melting range: Undetermined.</td>
</tr>
<tr>
<td>Boiling point/Boiling range: Undetermined.</td>
</tr>
</tbody>
</table>

| Flash point: Not applicable.                            |

| Flammability (solid, gaseous): Product is not flammable.|

| Decomposition temperature: Not determined.              |
| Auto igniting: Not determined.                           |

| Danger of explosion: Product does not present an explosion hazard.|

| 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:       |
| Partition coefficient (n-octanol/water): Not determined.|

| Viscosity:                                    |
| Dynamic: Not applicable.                      |
Safety Data Sheet
acc. to OSHA HCS

Printing date 05/06/2020 Revision date 05/06/2020

Trade name: Desloratadine

Kinematic:
SOLUBILITY
~0.5 mg/ml in a 1:1 solution of EtOH:PBS (pH 7.2); ~30 mg/ml in EtOH & DMF; ~10 mg/ml in DMSO

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: Strong oxidizing agents
- Hazardous decomposition products: Carbon oxides, hydrogen chloride, nitrogen oxides

11 Toxicological information

- RTECS Number DE8011000
- Information on toxicological effects
  - Acute toxicity:
  - Primary irritant effect:
    - on the skin: No irritant effect.
    - on the eye: Strong irritant with the danger of severe eye injury.
  - Sensitization: No sensitizing effects known.
- Additional toxicological information:
- Carcinogenic categories
  - IARC (International Agency for Research on Cancer) Substance is not listed.
  - 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.
- Ecotoxicological effects:
- Remark: Toxic for fish
- Additional ecological information:
- General notes:
  Water hazard class 2 (Self-assessment): hazardous for water
  Do not allow product to reach ground water, water course or sewage system.
  Must not reach bodies of water or drainage ditch undiluted or unneutralized.
  Danger to drinking water if even small quantities leak into the ground.
  Also poisonous for fish and plankton in water bodies.
  Toxic for aquatic organisms
Trade name: Desloratadine

- 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.

14 Transport information

- UN-Number
  - DOT, IMDG, IATA: not regulated
- UN proper shipping name
  - DOT, IMDG, IATA: not regulated
- Transport hazard class(es)
  - DOT, ADN, IMDG, IATA: not regulated
  - Class: not regulated
- Packing group
  - DOT, IMDG, IATA: not regulated
- Environmental hazards: Environmentally hazardous substance, solid
- Special precautions for user: Not applicable.
- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable.

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
  - 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.
  - Hazardous Air Pollutants: Substance is not listed.
  - Proposition 65
  - Chemicals known to cause cancer: Substance is not listed.
  - 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.

(Contd. from page 6)
Trade name: Desloratadine

- 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
  - GHS05
  - GHS07
  - GHS08
  - GHS09

- Signal word Danger
- Hazard statements
  Harmful if swallowed.
  Causes serious eye damage.
  Suspected of damaging fertility or the unborn child.
  Toxic to aquatic life.
  Toxic to aquatic life with long lasting effects.
- Precautionary statements
  Obtain special instructions before use.
  Do not handle until all safety precautions have been read and understood.
  Wash thoroughly after handling.
  Do not eat, drink or smoke when using this product.
  Avoid release to the environment.
  Wear protective gloves/protective clothing/eye protection/face protection.
  If swallowed: Call a poison center/doctor if you feel unwell.
  Rinse mouth.
  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/doctor.
  IF exposed or concerned: Get medical advice/attention.
  Collect spillage.
  Store locked up.
  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: Environment protection department.
- Contact: -
- Date of preparation / last revision 05/06/2020 / -
- Abbreviations and acronyms:
  - IMDG: International Maritime Code for Dangerous Goods
  - DOT: US Department of Transportation
  - IATA: International Air Transport Association
  - ACGIH: American Conference of Governmental Industrial Hygienists
  - EINECS: European Inventory of Existing Commercial Chemical Substances
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)
  - NFPA: National Fire Protection Association (USA)
  - HMIS: Hazardous Materials Identification System (USA)
  - PBT: Persistent, Bioaccumulative and Toxic
  - vPvB: very Persistent and very Bioaccumulative
  - NIOSH: National Institute for Occupational Safety
  - OSHA: Occupational Safety & Health

(Contd. on page 9)
Trade name: Desloratadine

TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Acute Tox. 4: Acute toxicity – Category 4
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Repr. 2: Reproductive toxicity – Category 2
Aquatic Acute 2: Hazardous to the aquatic environment - acute aquatic hazard – Category 2
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2