# SAFETY DATA SHEET
Meclizine (hydrochloride)

according to Regulation (EC) No. 1907/2006 as amended by (EC) No. 1272/2008

## Section 1. Identification of the Substance/Mixture and of the Company/Undertaking

<table>
<thead>
<tr>
<th>1.1 Product Code:</th>
<th>14615</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Name:</td>
<td>Meclizine (hydrochloride)</td>
</tr>
<tr>
<td>Synonyms:</td>
<td>1-[(4-chlorophenyl)phenylmethyl]-4-[(3-methylphenyl)methyl]-piperazine, dihydrochloride; Bonamine; Meclozine; NSC 28728; Parachloramine; Postafen;</td>
</tr>
</tbody>
</table>

## Section 2. Hazards Identification

### 2.1 Classification of the Substance or Mixture:

#### 2.1.1 Classification according to Regulation (EC) No 1272/2008 [CLP]:
- Acute Toxicity: Oral, Category 4
- Toxic To Reproduction, Category 2

#### 2.1.2 Classification according to Directive 1999/45/EC:
- T: Toxic
  - Reproductive Hazard: 3
  - Risk Phrases: R22, R62, R63

For full text of R- phrases: see SECTION 15.

### 2.2 Label Elements:

#### 2.2.1 Labeling according to Regulation (EC) No 1272/2008 [CLP]:

<table>
<thead>
<tr>
<th>GHS Signal Word:</th>
<th>Warning</th>
</tr>
</thead>
<tbody>
<tr>
<td>GHS Hazard Phrases:</td>
<td></td>
</tr>
<tr>
<td>H302: Harmful if swallowed.</td>
<td></td>
</tr>
<tr>
<td>H361: Suspected of damaging fertility or the unborn child.</td>
<td></td>
</tr>
</tbody>
</table>

| GHS Precaution Phrases: | |
| P264: Wash (hands) thoroughly after handling. | |
| P201: Obtain special instructions before use. | |
| P202: Do not handle until all safety precautions have been read and understood. | |
| P281: Use personal protective equipment as required. | |

| GHS Response Phrases: | |
| P301+312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. | |
| P330: Rinse mouth. | |
| P308+313: IF exposed or concerned: Get medical attention/advice. | |

| GHS Storage and Disposal Phrases: | |
| Please refer to Section 7 for Storage and Section 13 for Disposal information. | |

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**For research use only, not for human or veterinary use.**

Relevant identified uses:
- www.caymanchem.com
- 1-[(4-chlorophenyl)phenylmethyl]-4-[(3-methylphenyl)methyl]-piperazine, dihydrochloride; Bonamine; Meclozine; NSC 28728; Parachloramine; Postafen;
2.2.2 Labeling according to Directive 1999/45/EC:

T

Reproductive Hazard: 3

2.3 Adverse Human Health: Material may be irritating to the mucous membranes and upper respiratory tract. Material may be harmful by inhalation or skin absorption. May cause eye, skin, or respiratory system irritation. Suspected of damaging fertility or the unborn child. To the best of our knowledge, the toxicological properties have not been thoroughly investigated.

Section 3. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>CAS # / RTECS #</th>
<th>Hazardous Components (Chemical Name)/REACH Registration No.</th>
<th>Concentration</th>
<th>EC No./EC Index No.</th>
<th>Risk Phrases/ GHS Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>1104-22-9 TL2005000</td>
<td>Meclizine (hydrochloride)</td>
<td>100.0 %</td>
<td>214-164-8 NA</td>
<td>T; Rp:3, R22-62-63 Acute Tox.(O) 4: H302 Toxic Repro. 2: H361</td>
</tr>
</tbody>
</table>

Section 4. First Aid Measures

4.1 Description of First Aid Measures:

No data available.

In Case of Inhalation: Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.

In Case of Skin Contact: Immediately wash skin with soap and plenty of water for at least 15 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

In Case of Eye Contact: Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Have eyes examined and tested by medical personnel.

In Case of Ingestion: Wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.

Section 5. Fire Fighting Measures

5.1 Suitable Extinguishing Media: Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.

Unsuitable Extinguishing Media: Use water spray to cool fire-exposed containers.

A solid water stream may be inefficient.

5.2 Flammable Properties and Hazards:

Flash Pt: No data.

Explosive Limits: LEL: No data. UEL: No data.

Autoignition Pt: No data.

5.3 Fire Fighting Instructions: As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.
Section 6. Accidental Release Measures

6.1 Protective Precautions, Avoid raising and breathing dust, and provide adequate ventilation.
Protective Equipment As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or
and Emergency respirator, and appropriate personal protection (rubber boots, safety goggles, and heavy
Procedures: rubber gloves).

6.2 Environmental Take steps to avoid release into the environment, if safe to do so.
Precautions:

6.3 Methods and Material Contain spill and collect, as appropriate.
For Containment and Transfer to a chemical waste container for disposal in accordance with local regulations.
Cleaning Up:

Section 7. Handling and Storage

7.1 Precautions To Be Avoid breathing dust/fume/gas/mist/vapours/spray.
Taken in Handling: Avoid prolonged or repeated exposure.

7.2 Precautions To Be Keep container tightly closed.
Taken in Storing: Store in accordance with information listed on the product insert.

Section 8. Exposure Controls/Personal Protection

8.1 Exposure Parameters:

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Partial Chemical Name</th>
<th>Britain EH40</th>
<th>France VL</th>
<th>Europe</th>
</tr>
</thead>
<tbody>
<tr>
<td>1104-22-9</td>
<td>Meclizine (hydrochloride)</td>
<td>No data.</td>
<td>No data.</td>
<td>No data.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Partial Chemical Name</th>
<th>OSHA TWA</th>
<th>ACGIH TWA</th>
<th>Other Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>1104-22-9</td>
<td>Meclizine (hydrochloride)</td>
<td>No data.</td>
<td>No data.</td>
<td>No data.</td>
</tr>
</tbody>
</table>

8.2 Exposure Controls:

8.2.1 Engineering Controls Use process enclosures, local exhaust ventilation, or other engineering controls to
(Ventilation etc.): control airborne levels below recommended exposure limits.

8.2.2 Personal protection equipment:

Eye Protection: Safety glasses
Protective Gloves: Compatible chemical-resistant gloves
Other Protective Lab coat
Clothing:

Respiratory Equipment NIOSH approved respirator, as conditions warrant.
(Specify Type):

Work/Hygienic/Mainte Do not take internally.
ance Practices: Facilities storing or utilizing this material should be equipped with an eyewash and a
安全 shower.
Wash thoroughly after handling.
Section 9. Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

- Physical States: [ ] Gas [ ] Liquid [X] Solid
- Appearance and Odor: A crystalline solid
- Melting Point: No data.
- Boiling Point: No data.
- Flash Pt: No data.
- Evaporation Rate: No data.
- Explosive Limits: LEL: No data. UEL: No data.
- Vapor Pressure (vs. Air or mm Hg): No data.
- Vapor Density (vs. Air = 1): No data.
- Specific Gravity (Water = 1): No data.
- Solubility in Water: No data.
- Solubility Notes: ~0.11 mg/ml in EtOH; ~0.17 mg/ml in DMSO; ~5 mg/ml in DMF;
- Autoignition Pt: No data.

9.2 Other Information

- Molecular Formula & Weight: C25H27ClN2 • 2HCl 463.9

Section 10. Stability and Reactivity

10.1 Reactivity: No data available.
10.2 Stability: Unstable [ ] Stable [X]
10.3 Stability Note(s): Stable if stored in accordance with information listed on the product insert.
10.4 Conditions To Avoid: No data available.
10.5 Incompatibility - Materials To Avoid: strong oxidizing agents
10.6 Hazardous Decomposition Or Byproducts: carbon dioxide
hydrogen chloride
nitrogen oxides

Section 11. Toxicological Information

11.1 Information on Toxicological Effects: The toxicological effects of this product have not been thoroughly studied.
- Meclizine (hydrochloride) - Toxicity Data: Oral LD50 (mouse): 1600 mg/kg;
  Intraperitoneal LD50 (mouse): 625 mg/kg; Oral TDLO (rat): 800 mg/kg;
- Meclizine (hydrochloride) - Investigated as a reproductive effector.
- Only select Registry of Toxic Effects of Chemical Substances (RTECS) data is presented here. See actual entry in RTECS for complete information.
  Meclizine (hydrochloride) RTECS Number: TL2005000

Carcinogenicity: NTP? No IARC Monographs? No OSHA Regulated? No
Section 12. Ecological Information

12.1 Toxicity: Avoid release into the environment. Runoff from fire control or dilution water may cause pollution.

Section 13. Disposal Considerations

13.1 Waste Disposal Method: Dispose in accordance with local, state, and federal regulations.

Section 14. Transport Information

14.1 LAND TRANSPORT (US DOT):
- DOT Proper Shipping Name: Not dangerous goods.
- DOT Hazard Class: Not applicable.
- UN/NA Number: Not applicable.

14.1 LAND TRANSPORT (European ADR/RID):
- ADR/RID Shipping Name: Not dangerous goods.
- UN Number: Not applicable.
- Hazard Class: Not applicable.

14.3 AIR TRANSPORT (ICAO/IATA):
- ICAO/IATA Shipping Name: Not dangerous goods.

Additional Transport Information:
Transport in accordance with local, state, and federal regulations.

Section 15. Regulatory Information

EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists

<table>
<thead>
<tr>
<th>CAS #</th>
<th>Hazardous Components (Chemical Name)</th>
<th>S. 302 (EHS)</th>
<th>S. 304 RQ</th>
<th>S. 313 (TRI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1104-22-9</td>
<td>Meclizine (hydrochloride)</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>CAS #</th>
<th>Hazardous Components (Chemical Name)</th>
<th>Other US EPA or State Lists</th>
</tr>
</thead>
<tbody>
<tr>
<td>1104-22-9</td>
<td>Meclizine (hydrochloride)</td>
<td>CAA HAP, ODC: No; CWA NPDES: No; TSCA: Inventory; CA PROP.65: No</td>
</tr>
</tbody>
</table>

European Community Hazard Symbol codes:

![T] Reproductive Hazard: 3

European Community Risk and Safety Phrases:

- R22 Harmful if swallowed.
- R62 Risk of impaired fertility.
- R63 Possible risk of harm to the unborn child.
- S22 Do not breathe dust.
- S24/25 Avoid contact with skin and eyes.
- S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
- S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label whenever possible.)
SAFETY DATA SHEET
Meclizine (hydrochloride)

Regulatory Information

This SDS was prepared in accordance with Regulation (EC) No.1272/2008 and European Directive 67/548/EEC as amended.

Section 16. Other Information

Revision Date: 03/03/2014

Additional Information About This Product: No data available.

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