SAFETY DATA SHEET

Preparation Date: 11/29/2017
Revision Date: Not Applicable
Revision Number: Not Applicable

1. IDENTIFICATION

Product identifier

Product code: P2179
Product Name: PROPYLAMINE HYDROCHLORIDE

Other means of identification
Synonyms:
1-Aminopropane hydrochloride
Monopropylamine hydrochloride
Mono-n-propylamine hydrochloride
Propanamine hydrochloride
1-Propanamine hydrochloride
n-Propylamine hydrochloride
1-Propylamine hydrochloride

CAS #: 556-53-6
RTECS #: UI3057000
CI#: Not available

Recommended use of the chemical and restrictions on use

Recommended use: Chemical intermediate. Laboratory reagent.
Uses advised against: No information available

Supplier:
Spectrum Chemical Mfg. Corp
14422 South San Pedro St.
Gardena, CA 90248
(310) 516-8000

Order Online At: https://www.spectrumchemical.com
Emergency telephone number: Chemtrec 1-800-424-9300
Contact Person: Martin LaBenz (West Coast)
Contact Person: Ibad Tirmiz (East Coast)

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous according to the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

<table>
<thead>
<tr>
<th>Skin corrosion/irritation</th>
<th>Category 2</th>
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</thead>
<tbody>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Category 2A</td>
</tr>
<tr>
<td>Specific target organ toxicity (single exposure)</td>
<td>Category 3</td>
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</tbody>
</table>

Label elements

Warning

Product code: P2179  Product name: PROPYLAMINE HYDROCHLORIDE
Hazard statements
Causes serious eye irritation
Causes skin irritation
May cause respiratory irritation

Hazards not otherwise classified (HNOC)
Not Applicable

Other hazards
Not available

Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Wear protective gloves
Wear eye/face protection

Precautionary Statements - Response
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
IF ON SKIN: Wash with plenty of water
If skin irritation occurs: Get medical advice/attention
Take off contaminated clothing and wash it before reuse
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Precautionary Statements - Storage
Store in a well-ventilated place. Keep container tightly closed
Store locked up

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Weight %</th>
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<td>Propylamine Hydrochloride</td>
<td>556-53-6</td>
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</table>

4. FIRST AID MEASURES

First aid measures

General Advice: National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222.

Skin Contact: Wash off immediately with soap and plenty of water removing all contaminated clothing and shoes. Get medical attention. If skin irritation persists, call a physician.

Eye Contact: Flush eyes with water for 15 minutes. Get medical attention.

Product code: P2179
Product name: PROPYLAMINE HYDROCHLORIDE
Inhalation: Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion: Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Obtain medical attention.

**Most important symptoms and effects, both acute and delayed**

**Symptoms**
- Causes serious eye irritation
- Inflammation of the eye is characterized by redness, watering and itching
- Causes skin irritation
- Irritating to respiratory system

**Indication of any immediate medical attention and special treatment needed**

Notes to Physician: Treat symptomatically.

**Protection of first-aiders**
First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

### 5. FIRE-FIGHTING MEASURES

**Extinguishing Media**

**Suitable Extinguishing Media:** Carbon dioxide (CO2). Dry chemical. Water spray mist or foam.

**Unsuitable Extinguishing Media:** No information available.

**Specific hazards arising from the chemical**


**Specific hazards:** May be combustible at high temperatures.

**Special Protective Actions for Firefighters**

**Specific Methods:** No information available.

**Special Protective Equipment for Firefighters:** As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.
6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions: Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid contact with skin, eyes and clothing. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Use personal protective equipment. Remove all sources of ignition.

Environmental precautions Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Cover with plastic sheet to prevent spreading.

Methods for cleaning up Sweep up and shovel into suitable containers for disposal. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions: Provide sufficient air exchange and/or exhaust in work rooms. Avoid dust formation. Keep away from incompatible materials.

Safe Handling Advice
Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Do not breathe dust. Do not ingest. Keep away from heat and sources of ignition. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:
Hygroscopic. Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store away from incompatible materials.

Incompatible Materials:
Oxidizing agents
Acids
Acid chlorides
Acid anhydrides

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

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<th>Components</th>
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<th>NIOSH</th>
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Columbia

Propylamine Hydrochloride 556-53-6

None

None

None

None

Australia and Mexico

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<td>556-53-6</td>
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</table>

Appropriate engineering controls

Engineering measures to reduce exposure: Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment

Eye protection: Safety glasses with side-shields or Goggles

Skin and body protection: Long sleeved clothing
Chemical resistant apron
Gloves

Respiratory protection: Effective dust mask. Use a dust respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentration of dust (dust clouds), inadequate ventilation, development of respiratory tract irritation), and engineering controls are not feasible. Be sure to use an approved/certified respirator or equivalent.

Hygiene measures: Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Solid

Appearance: No information available.

Color: No information available.

Odor: No information available.

Taste: No information available.

Flammability: No information available

Formula: C3H9N.HCl

Molecular/Formula weight: 95.57

Flashpoint (°C/°F): No information available.

Flash Point Tested according to: Not available

Autoignition Temperature (°C/°F): No information available

Lower Explosion Limit (%): No information available

Upper Explosion Limit (%): No information available

Melting point/range(°C/°F): 160-162°C/320-324°F

Decomposition temperature(°C/°F): No information available

Boiling point/range(°C/°F): No information available

Bulk density: No information available

Density (g/cm3): No information available

Specific gravity:

Product code: P2179

Product name: PROPYLAMINE HYDROCHLORIDE
10. STABILITY AND REACTIVITY

Reactivity
No information available

Chemical stability

Stability: Stable under recommended storage conditions.

Possibility of Hazardous Reactions: Hazardous polymerization does not occur


Incompatible Materials: Oxidizing agents
Acids
Acid chlorides
Acid anhydrides

Hazardous decomposition products: Carbon monoxide. Sodium oxides.

Other Information
Corrosivity: No information available

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure:
Skin. Inhalation. Ingestion.

Acute Toxicity

Component Information

Propylamine Hydrochloride

<table>
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<th>Component</th>
<th>LD50/oral/rat</th>
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Product code: P2179
Product name: PROPYLAMINE HYDROCHLORIDE
LC50/inhalation/rat = No information available
LC50/inhalation/mouse = No information available
Other LD50 or LC50 information = No information available

Product Information

LD50/oral/rat = VALUE- Acute Tox Oral = No information available
LD50/oral/mouse = Value - Acute Tox Oral = No information available
LD50/dermal/rabbit VALUE-Acute Tox Dermal = No information available
LD50/dermal/rat VALUE -Acute Tox Dermal = No information available

LC50/inhalation/rat VALUE-Vapor = No information available
VALUE-Gas = No information available
VALUE-Dust/Mist = No information available

LC50/Inhalation/mouse VALUE-Vapor = No information available
VALUE - Gas = No information available
VALUE - Dust/Mist = No information available

Symptoms

Skin Contact: Causes skin irritation. Mildly to moderately irritating to the skin.

Eye Contact: Causes serious eye irritation. Moderately irritating to the eyes. Symptoms may include stinging, tearing, redness.

Inhalation Irritating to respiratory system.

Ingestion Health injuries are not known or expected under normal use.

Aspiration hazard No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic Toxicity No information available.

Sensitization: No information available.

Mutagenic Effects: No information available

Carcinogenic effects: Not considered carcinogenic.

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<th>Components</th>
<th>CAS-No.</th>
<th>IARC</th>
<th>ACGIH - Carcinogens</th>
<th>NTP</th>
<th>OSHA HCS - Carcinogens</th>
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<th>Australia - Prohibited Carcinogenic Substances</th>
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ACGIH (American Conference of Governmental Industrial Hygienists)

IARC (International Agency for Research on Cancer)
**NTP (National Toxicology Program)**

**OSHA (Occupational Safety and Health Administration of the US Department of Labor)**

Reproductive toxicity: No data is available

Reproductive Effects: 
No information available

Developmental Effects: 
No information available

Teratogenic Effects: 
No information available

**Specific Target Organ Toxicity**

STOT - single exposure: No information available.

STOT - repeated exposure: No information available.

Target Organs: No information available.

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**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

Ecotoxicity effects: No data available.

Persistence and degradability: No information available

Bioaccumulative potential: No information available.

Mobility: No information available.

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**13. DISPOSAL CONSIDERATIONS**

**Disposal Methods**

Waste from residues / unused products: 
Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging: 
Empty containers should be taken for local recycling, recovery or waste disposal.

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**14. TRANSPORT INFORMATION**

**DOT**

- UN-No: Not Regulated
- Proper Shipping Name: No information available
- Hazard Class: No information available
- Subsidiary Class: No information available
- Packing group: No information available
- Emergency Response Guide Number: No information available
- Marine Pollutant: No data available
- DOT RQ (lbs): No information available

Product code: P2179

Product name: PROPYLAMINE HYDROCHLORIDE
15. REGULATORY INFORMATION

International Inventories

<table>
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<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>U.S. TSCA</th>
<th>KOREA KECL</th>
<th>Philippines (PICCS)</th>
<th>Japan ENCS</th>
<th>CHINA</th>
<th>Australia (AICS)</th>
<th>EINECS-No.</th>
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<td>Not present</td>
<td>Present (2)-131</td>
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<td>Present 209-129-9</td>
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</table>

Product code: P2179

Product name: PROPYLAMINE HYDROCHLORIDE
U.S. Regulations


Chemicals Known to the State of California to Cause Cancer:
This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:
This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

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<thead>
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<th>Components</th>
<th>CAS-No.</th>
<th>Carcinogen</th>
<th>Developmental Toxicity</th>
<th>Male Reproductive Toxicity</th>
<th>Female Reproductive Toxicity</th>
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CERCLA/SARA

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<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>CERCLA - Hazardous Substances and their Reportable Quantities</th>
<th>Section 302 Extremely Hazardous Substances and TPQs</th>
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<th>Section 313 - Chemical Category</th>
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U.S. TSCA

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<th>Components</th>
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<th>TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)</th>
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</tbody>
</table>

Canada

WHIMIS 2015 - GHS Classifications

The WHIMIS 2015 classification of this product has not been validated or reviewed yet.

WHIMIS 1988 Hazard Class

Non-controlled

Components

Propylamine Hydrochloride

WHIMIS 1988
Uncontrolled product according to WHIMIS classification criteria

Canada Controlled Products Regulation:
This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

Inventory

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<table>
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**EU Classification**

**EU GHS - SV - CLP 1272/2008**

<table>
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<th>Components</th>
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**EU - CLP (1272/2008)**

**R-phrase(s)**
Not determined

**S -phrase(s)**
none

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The product is classified in accordance with Annex VI to Directive 67/548/EEC

**Indication of danger:**
not determined

**16. OTHER INFORMATION**

**Preparation Date:** 11/29/2017  
**Revision Date:** Not Applicable  
**Prepared by:** Sonia Owen

**Disclaimer:**
All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Safety Data Sheet

**Product code:** P2179  
**Product name:** PROPYLAMINE HYDROCHLORIDE