



# Material Safety Data Sheet

Catalog Number: 156416  
Revision date: 26-Apr-2006

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY INFORMATION

Catalog Number: 156416

Product name: PROPYLENEIMINE

Synonyms: Methylaziridine; 2-Methylazacyclopropane

**Supplier:**

MP Biomedicals, LLC  
29525 Fountain Parkway  
Solon, OH 44139  
tel: 440-337-1200

Emergency telephone number: CHEMTREC: 1-800-424-9300 (1-703-527-3887)

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS Number	Weight %	ACGIH Exposure Limits:	OSHA Exposure Limits:
PROPYLENEIMINE	75-55-8	90 - 100%	2 ppm TWA	2 ppm TWA; 5 mg/m <sup>3</sup> TWA

## 3. HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW:** Harmful to flora, fauna, soil organisms and aquatic organisms., Flammable, Very toxic: danger of very serious irreversible effects if swallowed. May also have serious irreversible effects through skin contact or inhalation.

**Category of Danger:**

Flammable , Dangerous for the environment , Very Toxic , Carc. cat. 2

**Principle routes of exposure:** Skin

**Inhalation:** Harmful: possible risk of irreversible effects through inhalation.

**Ingestion:** Very Toxic: danger of very serious irreversible effects if swallowed.

**Skin contact:** Harmful: danger of serious damage to health by prolonged skin contact.

**Eye contact:** Risk of serious damage to eyes

**Statements of hazard** Flammable

Very toxic if swallowed

**Statement of Spill or Leak - ANSI Label** Eliminate all ignition sources. Absorb and/or contain spill with inert materials (e.g., sand, vermiculite). Then place in appropriate container. For large spills, use water spray to disperse vapors, flush spill area. Prevent runoff from entering waterways or sewers.

**Statement of First Aid** (Insert POISON with Skull & Crossbones)

Call a physician immediately. If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

**Precautions - ANSI Label** Do not taste or swallow. Wash thoroughly after handling. Do not breathe vapors or spray mist Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling.

#### 4. FIRST AID MEASURES

**General advice:** In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

**Inhalation:** Move to fresh air. Call a physician immediately.

**Skin contact:** Rinse immediately with plenty of water for at least 15 minutes

**Ingestion:** Call a physician immediately. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Drink 1 or 2 glasses of water. Induce vomiting, but only if victim is fully conscious. Induce vomiting if person is conscious.

**Eye contact:** Flush eye(s) immediately with plenty of water. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

**Protection of first-aiders:** No information available

**Medical conditions aggravated by exposure:** None known

#### 5. FIRE FIGHTING MEASURES

**Suitable extinguishing media:**

Use dry chemical, CO<sub>2</sub>, water spray or `alcohol` foam.

**Specific hazards:**

Burning produces irritant fumes.

**Unusual hazards:**

None known

**Special protective equipment for firefighters:**

Wear self contained breathing apparatus for fire fighting if necessary. In the event of fire and/or explosion do not breathe fumes.

**Specific methods:**

Water mist may be used to cool closed containers.

**Flash point:**

-15°C

**Autoignition temperature:**

Not determined

**NFPA rating:**

NFPA Health:	4
NFPA Flammability:	4
NFPA Reactivity:	0

#### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions:**

Use personal protective equipment.

**Environmental precautions:**

Prevent product from entering drains.

**Methods for cleaning up:**

Ground and bond containers when transferring material

#### 7. HANDLING AND STORAGE

**Storage:**

+4°C  
DESICCATE

**Handling:**

Use only in area provided with appropriate exhaust ventilation.

**Safe handling advice:**

Wear personal protective equipment. Remove and wash contaminated clothing before reuse.

**Technical measures/storage conditions:**

Keep containers tightly closed in a cool, well-ventilated place. Keep container tightly closed in a dry and well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition

**Incompatible products:**

Oxidising and spontaneously flammable products

#### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering measures:** Ensure adequate ventilation, especially in confined areas.

**PERSONAL PROTECTIVE EQUIPMENT**

**Respiratory protection:** In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit.

**Hand protection:** Pvc or other plastic material gloves

**Skin and body protection:** Impervious clothing Long sleeved clothing

**Eye protection:** If splashes are likely to occur, wear: Safety glasses with side-shields

**Hygiene measures:** Handle in accordance with good industrial hygiene and safety practice.



## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance and Odor</b>	Colorless; fuming
<b>Physical state:</b>	Liquid
<b>Formula:</b>	C3H7N
<b>Molecular weight:</b>	57.09
<b>Melting point/range:</b>	-63 °C
<b>Boiling point/range:</b>	67 °C
<b>Density:</b>	0.8039 at 20 °C
<b>Vapor pressure:</b>	112 mm Hg at 20 °C
<b>Evaporation rate:</b>	No data available
<b>Vapor density:</b>	2.0 (air = 1)
<b>Solubility (in water):</b>	Completely miscible
<b>Flash point:</b>	-15°C
<b>Autoignition temperature:</b>	Not determined

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable under recommended storage conditions.
<b>Polymerization:</b>	None under normal processing.
<b>Hazardous decomposition products:</b>	Nitrogen oxides (NOx)/ammonia/CN-
<b>Materials to avoid:</b>	Acids Strong oxidising agents
<b>Conditions to avoid:</b>	Exposure to air or moisture over prolonged periods.

## 11. TOXICOLOGICAL INFORMATION

### Product Information

#### Acute toxicity

Components  
PROPYLENEIMINE

**RTECS Number:**  
CM8050000

**Selected LD50s and LC50s**  
Oral LD50 Rat : 19 mg/kg

<b>Chronic toxicity:</b>	Chronic exposure may cause nausea and vomiting, higher exposure causes unconsciousness.
<b>Local effects:</b>	Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.
<b>Specific effects:</b>	May include moderate to severe erythema (redness) and moderate edema (raised skin), nausea, vomiting, headache.
<b>Primary irritation:</b>	No data is available on the product itself.
<b>Carcinogenic effects:</b>	Possible carcinogen
<b>Mutagenic effects:</b>	No data is available on the product itself.
<b>Reproductive toxicity:</b>	No data is available on the product itself.

Components  
PROPYLENEIMINE

**NIOSH - Health Effects**  
Brain and mammary tumors in animals

**NIOSH - Target Organs**  
eyes, skin (in animals: nasal tumors)

## 12. ECOLOGICAL INFORMATION

**Mobility:** No data available  
**Bioaccumulation:** No data available  
**Ecotoxicity effects:** No data available  
**Aquatic toxicity:** May cause long-term adverse effects in the aquatic environment.

<b>Components</b> PROPYLENEIMINE	<b>U.S. DOT - Appendix B - Marine Pollutan</b> Not Listed	<b>U.S. DOT - Appendix B - Severe Marine Pollutants</b> Not Listed	<b>United Kingdom - The Red List:</b> Not Listed
<b>Components</b> PROPYLENEIMINE	<b>Germany VCI (WGK)</b> 3	<b>World Health Organization (WHO) - Drinking Water</b> Not Listed	<b>Ecotoxicity - Fish Species Data</b> Not Listed
<b>Components</b> PROPYLENEIMINE	<b>Ecotoxicity - Freshwater Algae Data</b> Not Listed	<b>Ecotoxicity - Microtox Data</b> Not Listed	<b>Ecotoxicity - Water Flea Data</b> Not Listed
<b>Components</b> PROPYLENEIMINE	<b>EPA - ATSDR Priority List</b> Not Listed	<b>EPA - HPV Challenge Program Chemical List</b> Not Listed	<b>California - Priority Toxic Pollutants</b> Not Listed
<b>Components</b> PROPYLENEIMINE	<b>California - Priority Toxic Pollutants</b> Not Listed	<b>California - Priority Toxic Pollutants</b> Not Listed	

## 13. DISPOSAL CONSIDERATIONS

**Waste from residues / unused products:** Waste disposal must be in accordance with appropriate Federal, State, and local regulations. This product, if unaltered by use, may be disposed of by treatment at a permitted facility or as advised by your local hazardous waste regulatory authority. Residue from fires extinguished with this material may be hazardous.

**Contaminated packaging:** Do not re-use empty containers

**Methods for cleaning up:** Ground and bond containers when transferring material

## 14. TRANSPORT INFORMATION

**UN/Id No:** 1921

**DOT:**

**Proper shipping name:** Propyleneimine, stabilized

**IATA Hazard Label(s):** Flammable Liquid & Toxic

**Hazard Class:** 3 - Flammable liquid

**Subsidiary risk:** 6.1 - Toxic

**Packing group:** I

**Emergency Response Guide Number (ERG):** 131P

Components  
 PROPYLENEIMINE

**U.S. DOT - Appendix A Table 1 - Reportable Quantities**  
 RQ = 1 pound (0.454 kg)

**TDG (Canada):**

**WHMIS hazard class:**

D2a very toxic materials



**IMDG/IMO**

**Proper shipping name:**

Propyleneimine, stabilized

**IMDG - Hazard Classifications**  
**IMDG - Regulated Substances**

IMDG class or division = 3, 6.1  
 UN1921

Components

<b>U.S. DOT - Appendix B - Marine Pollutants</b>	<b>U.S. DOT - Appendix B - Severe Marine Pollutants</b>
PROPYLENEIMINE	PROPYLENEIMINE
Not Listed	Not Listed

**IMO-labels:**

**15. REGULATORY INFORMATION**

**International Inventories**

**Components**

PROPYLENEIMINE

**Inventory - United States TSCA - Sect. 8(b)**

Present

**Canada DSL Inventory List -**

Not Listed

**Canada NDSL Inventory List -**

C3H7N

**Australia (AICS):**

Present

**Inventory - China:**

Present

**EU EINECS List -**

200-878-7; C3H7N

**Inventory - Japan:**

5-3332

**Philippines PICCS:**

Present

**U.S. regulations:**

**Components**

PROPYLENEIMINE

<b>California Proposition 65</b> - carcinogen; initial date 1/1/88	<b>Massachusetts Right to Know List:</b> carcinogen; extraordinarily hazardous	<b>New Jersey Right to Know List:</b> sn 1614	<b>Pennsylvania Right to Know List:</b> environmental hazard; special hazardous substance
---	---	--	--

**Components**

PROPYLENEIMINE

<b>Florida substance List:</b> [present]	<b>Rhode Island Right to Know List:</b> Toxic; skin	<b>Illinois - Toxic Air Contaminants</b> Present on HAP list	<b>Connecticut - Hazardous Air Pollutants</b> 50 ug/m <sup>3</sup> HLV; 0.02 ppmv HLV
---	--	---	--

**Components**

PROPYLENEIMINE

<b>SARA 313 Emission reporting/Toxic Release of Chemicals</b> form R reporting required for 0.1% de minimis concentration	<b>CERCLA/SARA - Section 302 Extremely Haz</b> NTP: TPQ = 10,000 pounds; RQ = 1 pound	<b>IARC:</b> Monograph 71, 1999; Supplement 7, 1987; Monograph 9, 1975
--	---	---

**SARA 313 Notification:**

The above is your notification as to the SARA 313 listing for this product(s) pursuant to Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

If you are unsure if you are subject to the reporting requirements of Section 313, or need more information, please call the EPA Emergency Planning and Community Right-To-Know Information Hotline: (800) 535-0202 or (202) 479-2499 (in Washington, DC or Alaska).

**State Notification:**

The above information is your notice as to the Right-to-Know listings of the stated product(s). Individual states will list chemicals for a variety of reasons including, but not limited to, the compounds toxicity; carcinogenic, tumorigenic and/or reproductive hazards; and the compounds environmental impact if accidentally released.

<b>16. OTHER INFORMATION</b>
------------------------------

**Prepared by:** Health & Safety

**Disclaimer:** The information and recommendations contained herein are based upon tests believed to be reliable. However, MP Biomedicals does not guarantee the accuracy or completeness NOR SHALL ANY OF THIS INFORMATION CONSTITUTE A WARRANTY, WHETHER EXPRESSED OR IMPLIED, AS TO THE SAFETY OF THE GOODS, THE MERCHANTABILITY OF THE GOODS, OR THE FITNESS OF THE GOODS FOR A PARTICULAR PURPOSE. Adjustment to conform to actual conditions of usage maybe required. MP Biomedicals 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.

**End of Safety Data Sheet**