

## MATERIAL SAFETY DATA SHEET

Date Printed: 01/11/2006

Date Updated: 03/08/2005

Version 1.4

## Section 1 - Product and Company Information

Product Name MAPROTILINE HYDROCHLORIDE  
Product Number M9651  
Brand SIGMA

Company Sigma-Aldrich Canada, Ltd  
Street Address 2149 Winston Park Drive  
City, State, Zip, Country Oakville ON L6H 6J8 CA  
Technical Phone: 9058299500  
Emergency Phone: 800-424-9300  
Fax: 9058299292

## Section 2 - Composition/Information on Ingredient

Substance Name	CAS #	SARA 313
MAPROTILINE HYDROCHLORIDE	10347-81-6	No

Formula C<sub>20</sub>H<sub>23</sub>N.ClH  
Synonyms BA 34276 \* Ciba 34276 Ba \* Ciba 34276  
hydrochloride \* Ludiomil \* Maprotiline  
hydrochloride \*  
1-(3-Methylaminopropyl)dibenzo(b,e)bicyclo(2.2.2)oc  
tadiene hydrochloride \*  
9-(gamma-Methylaminopropyl)-9,10-dihydro-9,10-etha  
noanthracene hydrochloride \*  
N-Methyl-9,10-ethanoanthracene-9(10H)-propanamine  
hydrochloride \*  
N-Methyl-9,10-ethanoanthracene-9(10H)-propylamine  
hydrochloride  
RTECS Number: KJ4555000

## Section 3 - Hazards Identification

## EMERGENCY OVERVIEW

Harmful.

Harmful if swallowed.

Target organ(s): Central nervous system.

## HMIS RATING

HEALTH: 1\*

FLAMMABILITY: 0

REACTIVITY: 0

## NFPA RATING

HEALTH: 1

FLAMMABILITY: 0

REACTIVITY: 0

\*additional chronic hazards present.

For additional information on toxicity, please refer to Section 11.

## Section 4 - First Aid Measures

---

### ORAL EXPOSURE

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

### INHALATION EXPOSURE

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

### DERMAL EXPOSURE

In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

### EYE EXPOSURE

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

---

## Section 5 - Fire Fighting Measures

---

### FLASH POINT

N/A

### AUTOIGNITION TEMP

N/A

### FLAMMABILITY

N/A

### EXTINGUISHING MEDIA

Suitable: Water spray. Carbon dioxide, dry chemical powder, or appropriate foam.

### FIREFIGHTING

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.  
Specific Hazard(s): Emits toxic fumes under fire conditions.

---

## Section 6 - Accidental Release Measures

---

### PROCEDURE TO BE FOLLOWED IN CASE OF LEAK OR SPILL

Evacuate area.

### PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

### METHODS FOR CLEANING UP

Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

---

## Section 7 - Handling and Storage

---

### HANDLING

User Exposure: Do not breathe dust. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

### STORAGE

Suitable: Keep tightly closed.

---

## Section 8 - Exposure Controls / PPE

---

### ENGINEERING CONTROLS

Safety shower and eye bath. Mechanical exhaust required.

### PERSONAL PROTECTIVE EQUIPMENT

Respiratory: Government approved respirator.

Hand: Compatible chemical-resistant gloves.

Eye: Chemical safety goggles.

### GENERAL HYGIENE MEASURES

Wash thoroughly after handling.

---

## Section 9 - Physical/Chemical Properties

---

Appearance	Physical State: Solid	
Property	Value	At Temperature or Pressure
Molecular Weight	313.9 AMU	
pH	N/A	
BP/BP Range	N/A	
MP/MP Range	N/A	
Freezing Point	N/A	
Vapor Pressure	N/A	
Vapor Density	N/A	
Saturated Vapor Conc.	N/A	
SG/Density	N/A	
Bulk Density	N/A	
Odor Threshold	N/A	
Volatile%	N/A	
VOC Content	N/A	
Water Content	N/A	
Solvent Content	N/A	
Evaporation Rate	N/A	
Viscosity	N/A	
Surface Tension	N/A	
Partition Coefficient	N/A	
Decomposition Temp.	N/A	
Flash Point	N/A	
Explosion Limits	N/A	
Flammability	N/A	
Autoignition Temp	N/A	
Refractive Index	N/A	
Optical Rotation	N/A	
Miscellaneous Data	N/A	
Solubility	N/A	

N/A = not available

---

## Section 10 - Stability and Reactivity

---

### STABILITY

Stable: Stable.

Materials to Avoid: Strong oxidizing agents.

### HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Nitrogen oxides, Hydrogen chloride gas.

### HAZARDOUS POLYMERIZATION

Section 11 - Toxicological Information

---

ROUTE OF EXPOSURE

Skin Contact: May cause skin irritation.  
Skin Absorption: May be harmful if absorbed through the skin.  
Eye Contact: May cause eye irritation.  
Inhalation: Material may be irritating to mucous membranes and upper respiratory tract. May be harmful if inhaled.  
Ingestion: Harmful if swallowed.

TARGET ORGAN(S) OR SYSTEM(S)

Central nervous system.

SIGNS AND SYMPTOMS OF EXPOSURE

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

TOXICITY DATA

Oral  
Woman  
90 mg/kg  
LDLO  
Remarks: Behavioral:Coma.

Oral  
Rat  
760 mg/kg  
LD50  
Remarks: Behavioral:Convulsions or effect on seizure threshold.  
Peripheral Nerve and Sensation:Flaccid paralysis without anesthesia (usually neuromuscular blockage). Lungs, Thorax, or Respiration:Respiratory depression.

Intraperitoneal  
Rat  
72 MG/KG  
LD50  
Remarks: Peripheral Nerve and Sensation:Flaccid paralysis without anesthesia (usually neuromuscular blockage). Behavioral:Convulsions or effect on seizure threshold. Lungs, Thorax, or Respiration:Respiratory depression.

Subcutaneous  
Rat  
170 MG/KG  
LD50  
Remarks: Peripheral Nerve and Sensation:Flaccid paralysis without anesthesia (usually neuromuscular blockage). Behavioral:Convulsions or effect on seizure threshold. Lungs, Thorax, or Respiration:Respiratory depression.

Intravenous  
Rat  
35 MG/KG  
LD50  
Remarks: Behavioral:Convulsions or effect on seizure threshold. Behavioral:Muscle weakness. Lungs, Thorax, or Respiration:Respiratory stimulation.

Oral  
Mouse  
480 mg/kg  
LD50

Remarks: Behavioral:Convulsions or effect on seizure threshold.  
Behavioral:Muscle weakness. Lungs, Thorax, or  
Respiration:Respiratory stimulation.

Intraperitoneal  
Mouse  
125 MG/KG  
LD50

Subcutaneous  
Mouse  
310 MG/KG  
LD50

Remarks: Lungs, Thorax, or Respiration:Respiratory stimulation.  
Behavioral:Muscle weakness. Behavioral:Convulsions or effect on  
seizure threshold.

Intravenous  
Mouse  
31 MG/KG  
LD50

Remarks: Peripheral Nerve and Sensation:Flaccid paralysis  
without anesthesia (usually neuromuscular blockage).  
Behavioral:Convulsions or effect on seizure threshold. Lungs,  
Thorax, or Respiration:Respiratory depression.

#### CHRONIC EXPOSURE - TERATOGEN

Result: Laboratory experiments have shown teratogenic effects.

Species: Rat

Dose: 210 MG/KG

Route of Application: Oral

Exposure Time: (9-15D PREG)

Result: Effects on Embryo or Fetus: Fetotoxicity (except death,  
e.g., stunted fetus).

Species: Mouse

Dose: 210 MG/KG

Route of Application: Oral

Exposure Time: (7-13D PREG)

Result: Effects on Embryo or Fetus: Fetotoxicity (except death,  
e.g., stunted fetus).

Species: Rabbit

Dose: 32500 UG/KG

Route of Application: Oral

Exposure Time: (6-18D PREG)

Result: Specific Developmental Abnormalities: Musculoskeletal  
system.

#### CHRONIC EXPOSURE - REPRODUCTIVE HAZARD

Species: Woman

Dose: 15 MG/KG

Route of Application: Oral

Exposure Time: (13D PRE)

Result: Maternal Effects: Breasts, lactation (prior to or during  
pregnancy).

Species: Rat  
Dose: 420 MG/KG  
Route of Application: Oral  
Exposure Time: (17-22D PREG/21D POST)  
Result: Effects on Newborn: Growth statistics (e.g., reduced weight gain).

Species: Mouse  
Dose: 105 MG/KG  
Route of Application: Oral  
Exposure Time: (7-13D PREG)  
Result: Effects on Newborn: Stillbirth.

---

## Section 12 - Ecological Information

---

No data available.

---

## Section 13 - Disposal Considerations

---

### APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION

Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

---

## Section 14 - Transport Information

---

### DOT

Proper Shipping Name: None  
Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport.

### IATA

Non-Hazardous for Air Transport: Non-hazardous for air transport.

---

## Section 15 - Regulatory Information

---

### EU ADDITIONAL CLASSIFICATION

Symbol of Danger: Xn  
Indication of Danger: Harmful.  
R: 22  
Risk Statements: Harmful if swallowed.

### US CLASSIFICATION AND LABEL TEXT

Indication of Danger: Harmful.  
Risk Statements: Harmful if swallowed.  
US Statements: Target organ(s): Central nervous system.

### UNITED STATES REGULATORY INFORMATION

SARA LISTED: No

### CANADA REGULATORY INFORMATION

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.  
DSL: No  
NDSL: No

---

## Section 16 - Other Information

---

DISCLAIMER

For R&D use only. Not for drug, household or other uses.

WARRANTY

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2006 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.