

Material Safety Data Sheet

Date Printed: 10/NOV/2004

Date Updated: 14/MAR/2004

Version 1.1

According to 91/155/EEC

Classified as Hazardous according to the criteria of EU Annex 1 and NOHSC.

1 - Product and Company Information

Product Name	AMITRIPTYLINE HYDROCHLORIDE
Product Number	A8404
Company	Sigma-Aldrich Pty, Ltd Unit 2, 14 Anella Avenue Castle Hill NSW 1765
Technical Phone #	+61 2 9841 0555
Fax	+61 2 9841 0500
Emergency Phone #	+61 2 9841 0566

2 - Composition/Information on Ingredients

Product Name	CAS #	EC no	Annex I Index Number
AMITRIPTYLINE HYDROCHLORIDE	549-18-8	208-964-6	None
Formula	C20H23N.ClH		
Molecular Weight	313.87 AMU		
Synonyms	Amitriptyline chloride * Amitriptyline hydrochloride * Damilen hydrochloride * Deprex * Domical * 10,11-Dihydro-N,N-dimethyl-5H-dibenzo(a,d)cyclohe ptene-delta(sup 5,gamma)-propylamine HCl * 5-(3-Dimethylaminopropylidene)dibenzo(a,d)(1,4)cy cloheptadiene hydrochloride * Elavil hydrochloride * Endep * Etrafon * Laroxyl * Lentizol * Limbitrol DS * Miketorin * Proheptadien monohydrochloride * 1-Propanamine, 3-(10,11-dihydro-5H-dibenzo(a,d)cyclohepten-5-yl idene)-N,N-dimethyl-, hcl * Rantoron * Saroten * SK-Amitriptyline * Triavil * Tryptizol * Yamanouchi		

3 - Hazards Identification

SPECIAL INDICATION OF HAZARDS TO HUMANS AND THE ENVIRONMENT

Toxic by inhalation, in contact with skin and if swallowed.
 Irritating to eyes, respiratory system and skin. May cause
 sensitization by inhalation and skin contact. Possible risk of
 harm to the unborn child.

4 - First Aid Measures

AFTER INHALATION

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

AFTER SKIN CONTACT

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

AFTER EYE CONTACT

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.

AFTER INGESTION

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

5 - Fire Fighting Measures

EXTINGUISHING MEDIA

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

SPECIAL RISKS

Specific Hazard(s): Emits toxic fumes under fire conditions.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

6 - Accidental Release Measures

PERSONAL PRECAUTION PROCEDURES 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.

7 - Handling and Storage

HANDLING

Directions for Safe Handling: Do not breathe dust. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

STORAGE

Conditions of Storage: Keep tightly closed.
Store at 2-8°C

8 - Exposure Controls / Personal Protection

ENGINEERING CONTROLS

Safety shower and eye bath. Use only in a chemical fume hood.

GENERAL HYGIENE MEASURES

Wash contaminated clothing before reuse. Wash thoroughly after handling.

PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection: Government approved respirator.

Hand Protection: Compatible chemical-resistant gloves.
Eye Protection: Chemical safety goggles.

9 - Physical and Chemical Properties

Appearance	Physical State: Solid	
Property	Value	At Temperature or Pressure
pH	N/A	
BP/BP Range	N/A	
MP/MP Range	198 - 200 °C	
Flash Point	N/A	
Flammability	N/A	
Autoignition Temp	N/A	
Oxidizing Properties	N/A	
Explosive Properties	N/A	
Explosion Limits	N/A	
Vapor Pressure	N/A	
SG/Density	N/A	
Partition Coefficient	N/A	
Viscosity	N/A	
Vapor Density	N/A	
Saturated Vapor Conc.	N/A	
Evaporation Rate	N/A	
Bulk Density	N/A	
Decomposition Temp.	N/A	
Solvent Content	N/A	
Water Content	N/A	
Surface Tension	N/A	
Conductivity	N/A	
Miscellaneous Data	N/A	
Solubility	N/A	

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

Hazardous Polymerization: Will not occur

11 - Toxicological Information

RTECS NUMBER: HO9450000

ACUTE TOXICITY

LDLO

Oral

Child

62.5 mg/kg

Remarks: Behavioral:Convulsions or effect on seizure threshold.

Vascular:BP lowering not charactertized in autonomic section.

Lungs, Thorax, or Respiration:Respiratory depression.

LDLO

Oral
Child
62.5 mg/kg
Remarks: Behavioral:Convulsions or effect on seizure threshold.
Lungs, Thorax, or Respiration:Cyanosis.

LDL0
Oral
Woman
19 mg/kg
Remarks: Behavioral:Coma. Lungs, Thorax, or Respiration:Dyspnea.

LD50
Oral
Rat
240 mg/kg
Remarks: Behavioral:Convulsions or effect on seizure threshold.
Behavioral:Ataxia. Lungs, Thorax, or Respiration:Dyspnea.

LD50
Intraperitoneal
Rat
67 MG/KG

LD50
Subcutaneous
Rat
385 MG/KG
Remarks: Behavioral:Convulsions or effect on seizure threshold.
Lungs, Thorax, or Respiration:Cyanosis.

LD50
Intravenous
Rat
14 MG/KG

LD50
Oral
Mouse
140 mg/kg

LD50
Intraperitoneal
Mouse
65 MG/KG
Remarks: Behavioral:Somnolence (general depressed activity).
Behavioral:Convulsions or effect on seizure threshold. Lungs,
Thorax, or Respiration:Dyspnea.

LD50
Subcutaneous
Mouse
80 MG/KG
Remarks: Behavioral:Convulsions or effect on seizure threshold.
Behavioral:Ataxia. Lungs, Thorax, or Respiration:Cyanosis.

LD50
Intravenous
Mouse
21 MG/KG

LD50

Intravenous
Dog
>27 MG/KG

LD50
Intramuscular
Dog
>23 MG/KG

LD50
Oral
Cat
37 mg/kg

LD50
Intravenous
Rabbit
9900 UG/KG

SENSITIZATION

Sensitization: May cause allergic reaction.

ROUTE OF EXPOSURE

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

TARGET ORGAN INFORMATION

Central nervous system. Heart.

CHRONIC EXPOSURE - MUTAGEN

Mouse
70 MG/KG
Oral
5D
sperm

CHRONIC EXPOSURE - TERATOGEN

Result: May cause congenital malformation in the fetus.

Species: Mouse
Dose: 60 MG/KG
Route of Application: Subcutaneous
Exposure Time: (9D PREG)
Result: Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Effects on Embryo or Fetus: Fetal death.
Specific Developmental Abnormalities: Central nervous system.

Species: Mouse
Dose: 60 MG/KG
Route of Application: Subcutaneous
Exposure Time: (9D PREG)
Result: Specific Developmental Abnormalities: Craniofacial (including nose and tongue).

Species: Hamster
Dose: 60 MG/KG
Route of Application: Intraperitoneal

Exposure Time: (8D PREG)
Result: Specific Developmental Abnormalities: Central nervous system. Specific Developmental Abnormalities: Body wall.
Specific Developmental Abnormalities: Musculoskeletal system.

Species: Hamster
Dose: 70300 UG/KG
Route of Application: Intraperitoneal
Exposure Time: (8D PREG)
Result: Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Specific Developmental Abnormalities: Central nervous system. Specific Developmental Abnormalities: Musculoskeletal system.

Species: Hamster
Dose: 60 MG/KG
Route of Application: Parenteral
Exposure Time: (8D PREG)
Result: Specific Developmental Abnormalities: Central nervous system. Specific Developmental Abnormalities: Body wall.

CHRONIC EXPOSURE - REPRODUCTIVE HAZARD

Species: Rat
Dose: 220 MG/KG
Route of Application: Subcutaneous
Exposure Time: (1-22D PREG)
Result: Effects on Newborn: Stillbirth. Effects on Newborn: Behavioral.

Species: Mouse
Dose: 70 MG/KG
Route of Application: Oral
Exposure Time: (5D MALE)
Result: Paternal Effects: Spermatogenesis (including genetic material, sperm morphology, motility, and count).

12 - Ecological Information

No data available.

13 - Disposal Considerations

SUBSTANCE DISPOSAL

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.

14 - Transport Information

RID/ADR

UN#: 2811
Class: 6.1
PG: III
Proper Shipping Name: Toxic solid, organic, n.o.s.

IMDG

UN#: 2811
Class: 6.1
PG: III

Proper Shipping Name: Toxic solid, organic, n.o.s.
Marine Pollutant: No
Severe Marine Pollutant: No
Technical Name: Required

IATA

UN#: 2811
Class: 6.1
PG: III
Proper Shipping Name: Toxic solid, organic, n.o.s.
Inhalation Packing Group I: No
Technical Name: Required

15 - Regulatory Information

CLASSIFICATION AND LABELING ACCORDING TO EU DIRECTIVES

INDICATION OF DANGER: T
Toxic.

R-PHRASES: 23/24/25 36/37/38 42/43 63

Toxic by inhalation, in contact with skin and if swallowed.
Irritating to eyes, respiratory system and skin. May cause sensitization by inhalation and skin contact. Possible risk of harm to the unborn child.

S-PHRASES: 45 26 36/37/39 22

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves, and eye/face protection. Do not breathe dust.

16 - Other Information

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 2004 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

DISCLAIMER

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