

MATERIAL SAFETY DATA SHEET

Date Printed: 08/29/2008

Date Updated: 08/18/2008

Version 1.9

Section 1 - Product and Company Information

Product Name AMINOPHYLLINE
Product Number A1755
Brand SIGMA

Company Sigma-Aldrich
Address 3050 Spruce Street
SAINT LOUIS MO 63103 US

Technical Phone: 800-325-5832
Fax: 800-325-5052
Emergency Phone: 314-776-6555

Section 2 - Composition/Information on Ingredient

Substance Name	CAS #	SARA 313 No
1H-PURINE-2,6-DIONE, 3,9-DIHYDRO-1,3-DIMETHYL-, COMPD. WITH 1,2-ETHANEDIAMINE	317-34-0	No

Formula C7H8N4O2 · 0.5(C2H8N2)

Synonyms Aminocardol * Aminodur * Aminofilina (Spanish) * Aminophylline * Ammophyllin * Cardophyllin * Cardophyllin * Cardiofilina * Cardiomin * Carena * Cariomin * Diaphylline * 3,7-Dihydro-1,3-dimethyl-1H-purine-2,6-dione compd. with 1,2-ethanediamine (2:1) * Diophyllin * Diuxanthine * DOBO * Dura-Tab S.M. Aminophylline * Ethophylline * Ethylenediamine, compd. with theophylline (1:2) * Etilen-xantisan tabl. * Eufilina (Polish) * Euphyllin * Euphylline * Euufilin * Eurphyllin * Genophyllin * Grifomin * Inophylline * Lasodex * Linampheta * Metaphyllin * Metaphylline * Methophylline * Minaphil * Miofilin * Neophyiline * Peterphyllin * Phylcardin * Phyllindon * Phyllocontin * 1H-Purine-2,6-dione, 3,7-dihydro-1,3-dimethyl-, compd. with 1,2-ethanediamine (2:1) (9CI) * Rectalad-aminophylline * Somophyllin * Somophyllin O * Stenovasan * TAD * Tefamin * Theodrox * Theolamine * Theolone * Theomin * Theophyldine * Theophyllamine * Theophyllaminium * Theophyllin aethylendiamin (German) * Theophylline ethylenediamine * Theophyllin ethylenediamine * Thephyldine * TH/100 * Vasofilina * aminophyllin

RTECS Number: XH5600000

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Toxic (USA) Harmful (EU).

Toxic if swallowed.

Target organ(s): Nerves. Heart.

HMIS RATING

HEALTH: 2*

FLAMMABILITY: 0

REACTIVITY: 0

NFPA RATING

HEALTH: 2

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)

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

Conditions of Instability: May discolor on exposure to air.
Materials to Avoid: Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Nitrogen oxides.

HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

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)

Kidneys. Heart. Lungs. Central nervous system.

SIGNS AND SYMPTOMS OF EXPOSURE

Adverse reactions: nausea, vomiting, diarrhea, anorexia, dyspepsia, epigastric pain, hematemesis, dizziness, vertigo, headache, light-headedness, nervousness, insomnia, hyperreflexia, fasciculations, clonic and tonic convulsions, palpitation tachycardia, extrasystoles, hypotension, circulatory failure, increased respiratory rates, urticaria.

TOXICITY DATA

Intravenous

Man

1420 UG/KG

LDLO

Remarks: Cardiac:Other changes. Lungs, Thorax, or Respiration:Other changes.

Rectal

Child

221 MG/KG

LDLO

Remarks: Nutritional and Gross Metabolic:Changes in:Body temperature increase. Gastrointestinal:Nausea or vomiting. Behavioral:Convulsions or effect on seizure threshold.

Oral

Rat

243 mg/kg

LD50

Intraperitoneal

Rat

129 MG/KG

LD50

Subcutaneous

Rat

176 MG/KG

LD50

Intravenous

Rat

104 MG/KG

LD50

Intramuscular

Rat

167 MG/KG

LD50

Remarks: Behavioral:Convulsions or effect on seizure threshold. Lungs, Thorax, or Respiration:Respiratory stimulation. Gastrointestinal:Changes in structure or function of salivary glands.

Oral

Mouse

150 mg/kg

LD50

Remarks: Behavioral:Convulsions or effect on seizure threshold.

Intraperitoneal

Mouse

37 MG/KG

LD50

Subcutaneous

Mouse

186 MG/KG

LD50

Intravenous

Mouse

125 MG/KG

LD50

Intramuscular

Mouse

215 MG/KG

LD50

Remarks: Behavioral:Convulsions or effect on seizure threshold. Behavioral:Tremor.

Intravenous
Rabbit
150 MG/KG
LD50

Remarks: Behavioral:Convulsions or effect on seizure threshold.

Oral
Guinea pig
184 mg/kg
LD50

Remarks: Gastrointestinal:Changes in structure or function of salivary glands. Lungs, Thorax, or Respiration:Respiratory stimulation. Behavioral:Convulsions or effect on seizure threshold.

Intraperitoneal
Guinea pig
130 MG/KG
LD50

Subcutaneous
Guinea pig
222 MG/KG
LD50

Intravenous
Guinea pig
143 MG/KG
LD50

Remarks: Behavioral:Convulsions or effect on seizure threshold. Lungs, Thorax, or Respiration:Respiratory stimulation. Gastrointestinal:Changes in structure or function of salivary glands.

CHRONIC EXPOSURE - MUTAGEN

Species: Mouse
Dose: 500 MG/L
Exposure Time: 24H
Cell Type: mammary gland
Mutation test: Cytogenetic analysis

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: Toxic solids, organic, n.o.s.
UN#: 2811
Class: 6.1

Packing Group: Packing Group III
Hazard Label: Toxic substances.
PIH: Not PIH

IATA

Proper Shipping Name: Toxic solid, organic, n.o.s.
IATA UN Number: 2811
Hazard Class: 6.1
Packing Group: III

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: Toxic (USA) Harmful (EU).
Risk Statements: Toxic if swallowed.
Safety Statements: In case of accident or if you feel unwell,
seek medical advice immediately (show the label where possible).
US Statements: Target organ(s): Nerves. Heart.

UNITED STATES REGULATORY INFORMATION

SARA LISTED: No
TSCA INVENTORY ITEM: Yes

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: Yes

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
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