

1 - Product and Company Information

ProductName DEMETON S, 100MG, NEAT

2 - Hazards Identification

SPECIAL INDICATION OF HAZARDS TO HUMANS AND THE ENVIRONMENT
Very toxic in contact with skin and if swallowed.

3 - Composition/Information on Ingredients

Product Name	CAS #	EC no	Annex I
DEMETON S	126-75-0	204-801-8	None

Formula C8H19O3PS2
Molecular Weight 258.36 AMU
Synonyms Demeton-S *
O,O-Diaethyl-S(2-aethylthio-aethyl)-monothiophosphat (German) * Diethyl S-(2-ethioethyl)thiophosphate * O,O-Diethyl S-(2-eththioethyl)phosphorothioate * O,O-Diethyl S-ethyl-2-ethylmercaptophosphorothiolate * O,O-Diethyl S-2-(ethylthio)ethyl phosphorothioate * O,O-Diethyl S-(2-(ethylthio)ethyl) phosphorothiolate * O,O-Diethyl-S-(2-ethylthio-ethyl)-monothiofosfaat (Dutch) * O,O-Dietil-S-(2-etiltio-etil)-monotiofosfato (Italian) * O,O-Dietyl-S-2-etylmerkapttoetyltiofosfat (Czech) * Ethanethiol, 2-(ethylthio)-, S-ester with O,O-diethyl phosphorothioate * Isodemeton * Isosystox * Izosystox (Czech) * PO-Systox * Thioldemeton * Thiol systox * Thiophosphate de O,O-diethyle et de S-(2-ethylthio-ethyle) (French)

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. Combustible.

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
Cover with dry lime or soda ash, pick up, keep in a closed container, and hold for waste disposal. 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. Keep away from heat and open flame. Store in a cool dry place.

SPECIAL REQUIREMENTS: Air sensitive. Light sensitive. Heat sensitive.

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: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator.
Hand Protection: Compatible chemical-resistant gloves.
Eye Protection: Chemical safety goggles.

9 - Physical and Chemical Properties

Appearance	Physical State: Liquid Odor: Unpleasant odor.	
Property	Value	At Temperature or Pressure
pH	N/A	
BP/BP Range	N/A	
MP/MP Range	N/A	
Flash Point	45 °C Method: closed cup	
Flammability	N/A	
Autoignition Temp	N/A	
Oxidizing Properties	N/A	
Explosive Properties	N/A	
Explosion Limits	Lower: 1 % Upper: 5.3 %	
Vapor Pressure	N/A	
SG/Density	1.132 g/cm3	
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	Solubility in Water:Insoluble.	

10 - Stability and Reactivity

STABILITY
Stable: Stable.
Conditions of Instability: May decompose on exposure to light. May decompose on exposure to air. Heat sensitive.
Materials to Avoid: Strong oxidizing agents, Strong bases.

HAZARDOUS DECOMPOSITION PRODUCTS
Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Sulfur dioxide, Phosphoric acid.

HAZARDOUS POLYMERIZATION
Hazardous Polymerization: Will not occur

11 - Toxicological Information

RTECS NUMBER: TF3130000

ACUTE TOXICITY

LD50 Oral Rat 1.5 mg/kg
LD50 Intraperitoneal Rat 1500 UG/KG Remarks: Biochemical:Enzyme inhibition, induction, or change in blood or tissue levelsTrue cholinesterase.
LD50 Intravenous Rat 1700 UG/KG Remarks: Biochemical:Enzyme inhibition, induction, or change in blood or tissue levelsTrue cholinesterase.
LD50 Intraperitoneal Mouse 174 UG/KG Remarks: Peripheria (usually neuromuscular:Flaccid paralysis without anesthesia (usually neuromuscular blockage).
LD50 Subcutaneous Mouse 6 MG/KG
LD50 Intraperitoneal Guinea pig 5500 UG/KG Remarks: Biochemical:Enzyme inhibition, induction, or change in blood or tissue levelsTrue cholinesterase.

SIGNS AND SYMPTOMS OF EXPOSURE
Fever. Change in pupil size. Muscle cramps/spasms. Weakness. Seizures. Incoordination. Convulsions. Coma. Confusion. Cholinesterase inhibitors can cause heavy salivation and secretion in the lungs, lachrymation, blurred vision, involuntary defecation, diarrhea, tremor, ataxia, sweating, hypothermia, lowered heart rate, and/or a fall in blood pressure as a result of their action at cholinergic nerve sites. Exposure can cause: Headache. Nausea. Drowsiness. Dizziness. Vomiting.

ROUTE OF EXPOSURE
Skin Contact: May cause skin irritation.
Skin Absorption: Toxic if absorbed through skin. Readily 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
Blood. Heart. Central nervous system. Eyes.

12 - Ecological Information

No data available.

13 - Disposal Considerations

SUBSTANCE DISPOSAL
Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

14 - Transport Information

RID/ADR
UN#: 3017
Class: 6.1
PG: I
Subrisk: 3
Proper Shipping Name: Organophosphorus pesticide, liquid, toxic, flammable

IMDG
UN#: 3017
Class: 6.1
PG: I
Subrisk: 3
Proper Shipping Name: Organophosphorus pesticide, liquid, toxic, flammable
Marine Pollutant: No
Severe Marine Pollutant: No
Technical Name: Required

IATA
UN#: 3017
Class: 6.1
PG: I
Subrisk: 3
Proper Shipping Name: Organophosphorus pesticide, liquid, toxic, flammable
Inhalation Packing Group I: No
Technical Name: Required

15 - Regulatory Information

CLASSIFICATION AND LABELING ACCORDING TO EU DIRECTIVES
ANNEX I INDEX NUMBER: 015-029-00-4
INDICATION OF DANGER: T+
Very toxic.
R-PHRASES: 27/28
Very toxic in contact with skin and if swallowed.
S-PHRASES: 28-36/37-45
After contact with skin, wash immediately with plenty of soap-suds. Wear suitable protective clothing and gloves. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

COUNTRY SPECIFIC INFORMATION

Germany
WGK: 2
Self-Classification

16 - Other Information

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. Lookchem 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.

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