SECTION-1: Identification of the substance / mixture and the company / undertaking

Catalogue Number	CS-T-15224
Product Name	Demeton-S-methyl
CAS No.	919-86-8
Category	Pesticide Standards
Synonyms	S-(2-(ethylthio)ethyl) O,O-dimethyl phosphorothioate
Brand	Clearsynth Labs Ltd.
Identified uses	Laboratory Chemicals
Uses advised against	Not available
Company	Clearsynth Labs Ltd. Mumbai, India
Emergency Phone #	+91-22-245045900
REACH No.	Not available

SECTION 2: Hazards identification

Disclaimer: This is sample MSDS. Please email **sales@clearsynth.com** for more details.

2.1 Classification of the substance or mixture-Regulation (EC) No 1272/2008:

Not available

2.2 Label Elements

Signal Word: Warning

Not available

Hazard Statement(s)

Code	Statement
H301	Not available
H311	Not available
H411	Toxic to aquatic life with long lasting effects.

Precautionary Statement(s)

Code	Statement
P262	Not available

P264	Wash hands thoroughly after handling.
P270	Not available
P273	Not available
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P316	Not available
P302+P352	IF ON SKIN: Wash with plenty of water and soap.
P316	Not available
P321	Specific treatment (see … on this label).
P330	Not available
P361+P364	Not available
P391	Not available
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulatio

SECTION 3: Composition / information on ingredients

3.1 Substance

Component : Demeton-S-methyl
CAS Number : 919-86-8
Molecular Formula : C6H15O3PS2
Molecular Weight : 230.28
Parent Chemical : -
Synonyms : S-(2-(ethylthio)ethyl) O,O-dimethyl phosphorothioate
Concentration : Not available

SECTION 4: First aid measures

Not available

SECTION 5: Firefighting measures

Not available

SECTION 6: Accidental release measures

Not available

SECTION-7: Handling and storage

Not available

SECTION 8: Exposure controls / personal protection

Not available

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Test	Result
Appearance	No data available
IR spectrum	No data available
pH	No data available
Solubility	No data available

Property	Value
a) Physical State	No data available
b) Color	No data available
c) Odor	No data available
d) pH	No data available
e) Vapour Pressure	No data available
f) Viscosity	No data available
g) Initial Boiling Point and boiling range	No data available
h) Melting Point / Freezing Point	No data available
i) Auto Ignition Temperature	No data available
j) Flash Point	No data available
k) Explosion Limit, Lower	No data available
l) Explosion Limit, Upper	No data available
m) Decomposition Temperature	No data available
n) Loss on Drying	No data available

Property	Value
o) Relative Density	No data available
p) Solubility (in DMSO)	No data available
q) Oxidizing Properties	No data available

SECTION 10: Stability and reactivity

Not available

SECTION 11: Toxicological information

11.1 Information on toxicological effects
- Acute toxicity: Primary exposure for the general human population is from residues of demeton-S-methyl on food crops. Demeton-S-methyl is rapidly and almost completely absorbed from the intestinal tract in rats and is uniformly (except for high concentration in erythrocytes) distributed to body tisssues. It is rapidly metabolized and excreted via the urine. Blood concentration decreases with an initial half life of about 2 hr. About 1% of the oral dose is present in the body 24 hr after treatment. The main metabolic pathway of demeton-S-methyl in rats is the oxidation of the side chain leading to the formation of the corresponding sulfoxide (oxydemeton-methyl) and, to a lesser extent, after further oxidation, to the sulfone. Another important metabolic route is O-demethylation. Demeton-S-methyl causes cholinergic toxicity. Demeton-S-methyl is a direct cholinesterase inhibitor, and the toxicity it causes is related to inhibition of acetylcholinesterase at nerve terminals. A few cases of acute intoxication with cholinergic syndrome, following suicide attempts, have been reported. Following careless occupational exposure during packaging of the commercial formulation, some workers developed cholinergic toxicity which required pharmacological treatment. Absorption of demeton-S-methyl was probably through the skin. Similarly, improper working conditions may have caused excessive dermal absorption during application of demeton-S-methyl in cotton fields. LC50 (rat) = 500 mg/m3/4hr.
- Skin corrosion/irritation: No data available.
- Serious eye damage/eye irritation: No signs of eye irritation occurred in rabbits whose eyes were treated with a 0.5% aqueous solution of demeton-S-methyl, but an undiluted formulation caused severe lacrimation and miosis. Mild corneal opacity and discrete redness and edema of conjunctivae were observed that disappeared within about 7 days.
- Respiratory or skin sensitization: Sensitization should not be a problem in the practical use of demeton-S-methyl.
- Germ cell mutagenicity: The available information is insufficient to permit an adequate assessment of the genotoxic potential of demeton-S-methyl.
- Carcinogenicity: A4; Not classifiable as a human carcinogen.
- Reproductive toxicity: Demeton-S-methyl was neither embryotoxic nor teratogenic.
- STOT-single exposure: No data available.
- STOT-repeated exposure: No data available.
- Aspiration hazard: No data available.

Likely routes of exposure
- MAY BE ABSORBED! Further see Inhalation.

Symptoms related to the physical, chemical and toxicological characteristics

- Nausea, vomiting, abdominal cramps, diarrhea, excessive salivation (sialorrhea); hypothermia (reported in animals and at least once in man as an early sign); headache, giddiness, vertigo, weakness; rhinorrhea and sensation of tightness in the chest (inhalation exposures); blurring/dimness of vision, miosis (fixed pinpoint pupils), tearing, ciliary muscle spasm, loss of accommodation, ocular pain (mydriasis sometimes seen); bradycardia or tachycardia, varying degrees of arterial/venous heart block, atrial arrhythmias; loss of muscle coordination, slurring of speech, fasciculations and twitching of muscles (particularly of the tongue and eyelids), generalized profound weakness; mental confusion, disorientation, drowsiness; difficulty in breathing, excessive secretion of saliva and respiratory tract mucus, oronasal frothing, cyanosis, pulmonary rales and rhonchi, hypertension presumably due to asphyxia; random jerky movements, incontinence, convulsions, coma; death primarily due to respiratory arrest arising from failure of the respiratory muscles, intense bronchoconstriction, or all three. /Parathion; reference congener/

SECTION 12: Ecological information

Not available

SECTION 13: Disposal considerations

Not available

SECTION 14: Transport information

Not available

SECTION 15: Regulatory information

Not available

SECTION 16: Other information

Not available

DISCLAIMER

This MSDS is system-generated. Please verify and confirm all data, statements, and values with the Support Team before use or distribution.