

Material Safety Data Sheet

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Version 1.5

According to 91/155/EEC

1 - Product and Company Information

Product Name	METHOMYL PESTANAL®
Product Number	36159
Company	Sigma-Aldrich Pte Ltd #08-01 Citilink Warehouse Singapore 118529 Singapore
Technical Phone #	65 271 1089
Fax	65 271 1571

2 - Composition/Information on Ingredients

Product Name	CAS #	EC no	Annex I Index Number
METHOMYL	16752-77-5	240-815-0	006-045-00-2

Formula C₅H₁₀N₂O₂S

Molecular Weight 162.2 AMU

Synonyms Acetimidic acid, N-((methylcarbamoyl)oxy)thio-, methyl ester (8CI) * Acetimidothioic acid, methyl-, N-(methylcarbamoyl) ester * DPX-X1179-412 * Dupont 1179 * Du Pont insecticide 1179 * ENT 27,341 * Ethanimidothioic acid, N-(((methylamino)carbonyl)oxy)-, methyl ester (9CI) * IN 1179 * Insecticide 1,179 * 1N-X1179-412 * Lannate * Lannate L * Lannate 10L candidate * Lannate LV * Mesomile * Methomex * Methomyl (ACGIH) * N-(((Methylamino)carbonyl)oxy)ethanimidothioic acid methyl ester * N-((Methylcarbamoyl)oxy)thioacetimidic acid methyl ester * Methyl N-(((methylamino)carbonyl)oxy)ethanimidothioate * Methyl-N-((methylcarbamoyl)oxy)thioacetimidate * S-Methyl N-(methylcarbamoyloxy)thioacetimidate * Methyl O-(methylcarbamoyl)thiolacethohydroxamate * 2-Methylthio-acetaldehyd-O-(methylcarbamoyl)-oxim (German) * 2-Methylthio-propionaldehyd-O-(methylcarbamoyl)-oxim (German) * Metomil (Italian) * NU-Bait II *

3 - Hazards Identification

SPECIAL INDICATION OF HAZARDS TO HUMANS AND THE ENVIRONMENT

Very toxic if swallowed. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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.

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.

EXPOSURE LIMITS - DENMARK

Source	Type	Value
OEL	TWA	2.5 mg/m3

Remarks: H

EXPOSURE LIMITS - GERMANY

Source	Type	Value
TRGS 900	OEL	2.5 mg/m3, E

Remarks: H,NL

EXPOSURE LIMITS - NORWAY

Source	Type	Value
	OEL	2.5 mg/m3

Remarks: H

EXPOSURE LIMITS - SWITZERLAND

Source	Type	Value
OEL	OEL	2.5 mg/m3

Remarks: E H

EXPOSURE LIMITS - UNITED KINGDOM

Source	Type	Value
OEL	OEL	2.5 mg/m3

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
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pH	N/A
BP/BP Range	N/A
MP/MP Range	78 - 80 °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, Strong bases.

HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide.

HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

11 - Toxicological Information

RTECS NUMBER: AK2975000

ACUTE TOXICITY

LD50

Oral

Rat

17 mg/kg

LC50

Inhalation

Rat

77 ppm

4H

Remarks: Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Eye:Lacrimation. Behavioral:Tremor. Lungs, Thorax, or Respiration:Dyspnea.

LD50

Skin

Rat

> 1600 mg/kg

LD50

Intraperitoneal

Rat

6290 UG/KG

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

LD50

Subcutaneous

Rat

9 MG/KG

LD50

Oral

Mouse

10 mg/kg

LD50

Oral

Dog

20 mg/kg

LD50

Skin

Rabbit

5880 mg/kg

LD50
Oral
Pigeon
10 mg/kg

LD50
Oral
Chicken
28 mg/kg
Remarks: Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Eye:Lacrimation. Behavioral:Convulsions or effect on seizure threshold. Lungs, Thorax, or Respiration:Dyspnea.

LD50
Oral
Quail
23.7 mg/kg

LC50
Inhalation
Quail
3,680 ppm

LD50
Oral
Duck
15 mg/kg

LC50
Inhalation
Duck
1,890 ppm

LD50
Oral
Bird (wild)
10 mg/kg

SIGNS AND SYMPTOMS OF EXPOSURE

Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting.

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: May be fatal if swallowed.

TARGET ORGAN INFORMATION

Nerves. Blood. Cardiovascular system. Liver. Kidneys.

CONDITIONS AGGRAVATED BY EXPOSURE

Highly toxic cholinesterase inhibitor.

CHRONIC EXPOSURE - CARCINOGEN

Result: This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

CHRONIC EXPOSURE - MUTAGEN

Human
10 UMOL/L
Cell Type: lymphocyte
Micronucleus test

Human
500 UMOL/L
Cell Type: lymphocyte
DNA damage

Human
1 MMOL/L
Cell Type: lymphocyte
DNA damage

Human
180 UMOL/L
Cell Type: lymphocyte
Cytogenetic analysis

Mouse
5 MG/KG
Intraperitoneal
DNA damage

Mouse
10 MG/KG
Intraperitoneal
DNA damage

Mouse
20 MG/KG
Oral
Cytogenetic analysis

Mouse
20 MG/KG
Oral
sperm

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: II

Proper Shipping Name: Toxic solid, organic, n.o.s.

IMDG

UN#: 2811

Class: 6.1

PG: II

Proper Shipping Name: Toxic solid, organic, n.o.s.

Marine Pollutant: Yes

Severe Marine Pollutant: No

Technical Name: Required

IATA

UN#: 2811

Class: 6.1

PG: II

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

ANNEX I INDEX NUMBER: 006-045-00-2

INDICATION OF DANGER: T+ N

Very toxic. Dangerous for the environment.

R-PHRASES: 28 50/53

Very toxic if swallowed. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-PHRASES: 22 36/37 45 60 61

Do not breathe dust. Wear suitable protective clothing and gloves. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). This material and its container must be disposed of as hazardous waste. Avoid release to the environment. Refer to special instructions/safety data sheets.

SWITZERLAND

SWISS POISON CLASS: 2

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.

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