



METHOMYL 98 TC

SDS No : SDS - 011B
 Revision : 2
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SECTION 1 - IDENTIFICATION

Product Name : METHOMYL 98 TC
 Active Ingredients : Methomyl
 Synonim : *S-methyl-N-(methylcarbamoyloxy)thioacetimidate*
 Recommended use and restrictions on use : Used for Active ingredients of Insecticide
 Company Identification : PT Inti Everspring Indonesia
 Wisma UIC 4th floor, JL. Gatot Subroto Kav. 6-7
 Jakarta 12930, Indonesia
 Tel. 62-21-57905245 ; Fax. 62-21-57905244
 Emergency Telephone Number : 62-254-5750064 / 62-254-5750049

SECTION 2 - HAZARDS IDENTIFICATION

GHS Classification :

Acute Toxicity (Oral)	Category 2
Acute Toxicity (Inhalation)	Category 2
Serious Eye Damage/Eye Irritation	Category 2B
Specific Target Organ Toxicity (Single Exposure)	Category 1
Specific Target Organ Toxicity (Repeated Exposure)	Category 2
Acute Aquatic Toxicity	Category 1
Chronic Aquatic Toxicity	Category 2

GHS Labelling Symbol (s) :



Signal Word : Danger

Hazard statements

H300	Fatal if swallowed
H330	Fatal if inhaled
H320	Causes eye irritation
H370	Causes damage to organs (neurology system)
H373	May damage to organs (neurology and blood system) through prolonged or repeated exposure
H400	Very toxic to aquatic life
H411	Toxic to aquatic life with long lasting effects

Precautionary Statements

Prevention

P260	Do not breathe dust/fume/gas/mist/vapours/spray
P264	Wash thoroughly after handling
P270	Do not eat, drink, or smoke when using this product
P271	Use only outdoors or in well ventilated area
P284	In case of inadequate ventilation wear respiratory protection
P273	Avoid release to the environment

Precautionary Statements

Respons

P301+P310 IF SWALLOWED: immediately call a poison



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center/doctor
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing
 P305+P351 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 +P338
 P308+P311 If exposed or concerned: Call a poison center/doctor.
 P310 Immediately call a poison center/doctor
 P314 Get medical advice/attention if you feel unwell
 P320 Specific treatment is urgent (see on this label)
 P321 Specific treatment (see on this label)
 P330 Rinse mouth
 P337+P313 If eye irritation persist: Get medical advice/attention

Precautionary Statements

Storage
 P405 Store locked up
 P403+P233 Store in well ventilated place. Keep container tightly closed.

Disposal
 P501 Dispose of contents/container in accordance with local/ national/ international regulation

Other Hazard
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SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

CHEMICAL NAME	CAS NO	CONCENTRATION (%)
<i>S-methyl-N-(methylcarbamoyloxy)thioacetimidate</i>	16752-77-5	98

SECTION 4 - FIRST- AID MEASURES

Eye : If concentrate is splashed in eyes, flush with running water for at least 15 minutes. Take to hospital without delay.
 Skin : If spilt on the skin, remove contaminated clothing and wash affected areas of skin immediately. DO NOT Scrub the skin. Remove and wash contaminated clothing before re-use.
 Ingestion : If swallowed DO NOT induce vomiting. For advice, contact the National Poisons Centre or a doctor immediately.
 Inhalation : If inhaled, remove from exposure and have patient lie down and keep quiet. If patient is not breathing, start artificial respiration immediately. Never give anything by mouth to an unconscious person. Call a physician if necessary.

SECTION 5 - FIRE FIGHTING MEASURES

General Information : Firefighters must consider the nature of the product and use the poison face shields, full breathing apparatus and flame resistant clothing
 Extinguishing Media : Foam, dry chemical, carbon dioxide, water, or halon
 Specific Hazard of Fire : NO, SO, HCN, MIC
 Hazardous Product of Decomposition : NO, SO, HCN, MIC

SECTION 6 - ACCIDENTAL RELEASE MEASURES

If container is ruptured or begins to leak, place in a well-ventilated area free of sparks and ignition sources.
 Use Personal protective equipment as recommended in section 8.



Prevent product from entering drains or water courses. Shovel or sweep up spills. Never return to container for reuse. Scoop into bags or boxes using plastic or aluminium shovel. Pesticide that cannot be used according to label instructions must be disposed of according to all applicable Local, procedures.

SECTION 7 - HANDLING AND STORAGE

- Handling : Do not breathe vapour or mist. This product causes mild eye irritation. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. Wash clothing after use. Do not store or consume food, drink or tobacco in areas where they may become contaminated with this material.
This product must be under the control of an approved handler at all times. This product must be tracked.
- Storage : Do not store near sources of sparks, flame or heat. Keep under lock and keep out of reach of unauthorised persons, children and animals. Store in its original labeled container in isolated, dry, cool and well-ventilated area. Not to be stored next to foodstuffs and water supplies. Local regulations should be complied with.
- Danger : There is a risk of explosion if formed mixture of dust and air. No smoking or welding in the workplace. Apply grounding system for power tools to prevent static electric charge.

SECTION 8 - EXPOSURE CONTROL / PERSONAL PROTECTION

Engineering control : Use only with adequate ventilation. Apply grounding system for power tools to prevent static electric charge.

Threshold Limit Value : 2.5 mg/m³ - 8 hour (TLV-TWA, ACGIH 2017)
(TLV)

Personal Protective Equipment

- Eye Protection : Safety glasses
Gloves : Chemical resistant gloves
Clothing Protection : Wear clothing with long sleeve
Respiratory Protection : Mask or wear respiratory protection In case of inadequate ventilation

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

- 1 Physical Appearance : Powder
- 2 Color : White to cream
- 3 Odor : Sulfurous odor
- 4 Odor Threshold : Not available
- 5 pH (1%) : 5 - 6 (pH 1 %)
- 6 Melting Point : 78-79 °C
- 7 Freezing Point : Not available
- 8 Boiling Point : 136°C (Auto decomposition)
- 9 Flash Point : Not available
- 10 The rate of Evaporation : Not available
- 11 Flammability : Not available
- 12 Lower Explosive Limit (LEL) : 0.096 g/L
- 13 Vapour Pressure : 0.72 mPa (25 °C)
- 14 Molecular weight : Not available
- 15 Decomposition temperature : Not available
- 16 Autoignition temperature : Not available
- 17 Viscosity : Not available
- 18 Bulk Density : 1.2946 (25 °C)
- 19 Density relative : 1.3
- 20 Solubility : 57.9 g/l (25 °C)



21 Koefisien partition : n-octanol/water : 0.6

SECTION 10 - STABILITY AND REACTIVITY

Reactivity : None known
 Stability : Stable
 Hazardous Reaction under Specific Condition : Not available
 Condition to Avoid : Avoid processing temperature: > 136 °C. Heating can release hazardous gases. To avoid thermal decomposition, do not overheat.
 Under severe dusting conditions, this material may form explosive mixtures in air
 Avoid static electric charge and other ignition sources.
 Incompatible material to avoid : Avoid mixed with highly reactive chemicals such as strong acid, strong base or strong oxidizing agent.
 Hazardous Product of Decomposition : NO, SO, HCN
 Hazardous Polymerization : Will not occur

SECTION 11 - TOXICOLOGICAL INFORMATION

Acute Toxicity (oral) LD₅₀ : 17-24 mg/kg Rat (Salim Agrochemical, 2015)
 The oral LD 50 values for methomyl based on rat studies, were 34 and 30 mg/kg in males and females, respectively (Toxicity Category I). Clinical signs observed in all treatment groups of both sexes included tremors, low posture and salivation (EPA, 1998 in NITE 2006).
 Acute Toxicity (dermal) LD₅₀ : >5000 mg/kg (Salim Agrochemical, 2015)
 Acute Toxicity (inhalation) LC₅₀ : 0.3 mg/l Rat / 4 hour (Pesticide Manual 2009)
 Subchronic toxicity (90 days) - Technical Material : In a 90-day feeding study in rats, Charles River CD rats (10/sex/group) were fed methomyl at dietary levels of 0, 0.5, 2.5 or 12.5 mg/kg/day for 13 weeks. The NOEL is 6.25 mg/kg/day and the LOEL is 12.5 mg/kg/day for rat based on inhibited body weight gain in both sexes and erythroid hyperplasia in the bone marrow of males (EPA, 1998 in NITE, 2006).
 Chronic Toxicity (2 years) -Technical Material : Not available
 Mutagenicity in germ cells : No mutagenicity
 Carcinogenicity : No carcinogenic activity
 Eye Irritation : Mild eye irritant (rabbits), corneal opacity and iritis were observed at 1 hour after the treatment and completely reversed by 7 days.
 Skin Irritation : Non irritant

SECTION 12 - ECOLOGICAL INFORMATION

Acute Toxicity

Fish - *Bluegill sunfish* (LC₅₀ 96 jam) : 0.63mg/l
 Fish -*Fathead minnow (Pimephales promelas)* NOEC : 0.076 ppm
 Daphnia - *Daphnia Magna* (LC₅₀ 48 h) : 17 µg/l
Daphnia Magna NOEC 21 days : >0.4 ppb
 Bird - *Bobwhite Quail* (LD₅₀) : 24.2 mg/l
 Bio accumulation : No bioaccumulation, unstable intermediates were converted to acetonitrile and CO₂, which were



eliminated primarily via respiration and in the urine animals.

Persistence and degradation by environment : Methomyl is weak to moderately persistent, with a soil half life ($t_{1/2}$) ranging from a few to more 50 days. Rapidly degraded in soil. DT50 in groundwater samples <0.2 d. Koc 72.

Soil Mobility : Low mobility in soil

Others adverse effect : Very toxic for bees

SECTION 13 - DISPOSAL CONSIDERATIONS

Disposal, storage or cleaning equipment should not be used to contaminate food, animal feed or water. Read extermination instructions listed on the product label. Products are very toxic to aquatic life and toxic to aquatic life with long lasting effects. Do not contaminate domestic water or other water sources.

Disposal Containers / Packaging: Destroy empty container and dispose of / destroyed in accordance with local regulations. Never use second-hand containers for any purpose.

SECTION 14 - TRANSPORT INFORMATION

DOT (US)

Proper shipping name : CARBAMATE PESTICIDE, SOLID, TOXIC (Methomyl Technical)

Class Danger Transport : 6.1

UN Number : UN 2757

Packing Group : II

IMDG (INTERNATIONAL MARITIME DANGEROUS GOODS)

UN Number : UN 2757

Class and Packing group : 6.1 and II

Proper shipping name : CARBAMATE PESTICIDE, SOLID, TOXIC (Methomyl Technical)

Marine Pollutant : Yes (Methomyl)

IATA (INTERNATIONAL AIR TRANSPORT ASSOCIATION)

UN Number : UN 2757

Class and Packing group : 6.1 and II

Proper shipping name : CARBAMATE PESTICIDE, SOLID, TOXIC (Methomyl Technical)

SECTION 15 - REGULATORY INFORMATION

Safety Data Sheet / Safety Data Sheet meets the regulations :

1. Regulation of the Minister of Industry of the Republic of Indonesian number 23 / M-INDPER / 4/2013
2. Minister of Indonesian Labour Decree No. Kep. 187/MEN/1999 about Hazardous Chemicals Control in the Workplace
3. Building Blocks Seventh revised edition of the GHS

SECTION 16 - OTHER INFORMATION

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein.

Reference:

1. Building Blocks seventh revised edition of the GHS
2. Regulation of the Minister of Industry of the Republic of Indonesian number 23 / M-INDPER / 4/2013
3. Toxicity Data of Salim Agrochemical Group's Product 2015



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4. Manual Pesticide fifteenth Edition, C D S Tomlin, 2009, BCPC
 5. National Institute of Technology and Evaluation Chemical Risk Information Platform (NITECHRIP). Methomyl. Japan, 2006
 6. American Conference of Governmental Industrial Hygienist (ACGIH). Table of Exposure Limit for Chemical and Biological Substances. 2017