



METHOMYL 98% TC

SDS No : SDS - 163B
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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



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

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

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|----|-----------------------------|------------------------------|
| 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 (Autode composition) |
| 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 h) : 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



Persistence and degradation by environment	: animals. 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
4. Manual Pesticide fifteenth Edition, C D S Tomlin, 2009, BCPC



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SAFETY DATA SHEET



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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