



CARBOFURAN 75 TK

SDS No : SDS - 162B
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SECTION 1 - IDENTIFICATION

Product Name : CARBOFURAN 75 TK
Active Ingredients : Carbofuran
Synonim : *2,3-dihydro-2,2-dimethylbenzofuran-7-yl N- methylcarbamate*
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
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SECTION 2 - HAZARDS IDENTIFICATION

GHS Classification :

Acute Toxicity (Oral)	Category 2
Acute Toxicity (Dermal)	Category 5
Acute Toxicity (Inhalation)	Category 2
Serious Eye Damage/Eye Irritation	Category 2B
Skin Corrosion / Irritation	Category 3
Germ Cell Mutagenicity	Category 2
Specific Target Organ Toxicity (Single Exposure)	Category 1
Specific Target Organ Toxicity (Repeated Exposure)	Category 1
Acute Aquatic Toxicity	Category 1
Chronic Aquatic Toxicity	Category 1

GHS Labelling Symbol (s) :



Signal Word :

Danger

Hazard statements

H300+H330	Fatal if swallowed or if inhaled
H313	May be harmful in contact with skin
H316	Causes mild skin irritation
H320	Causes eye irritation
H341	Suspected of causing genetic defects
H370	Causes damage to organs (nervous system)
H372	Causes damage to organs (nervous system and testis) through prolonged or repeated exposure
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

Precautionary Statements

Prevention

P264	Wash thoroughly after handling
P270	Do not eat, drink, or smoke when using this product
P260	Do not breathe dust/fume/gas/mist/vapours/spray



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	P271	Use only outdoors or in well ventilated area	
	P284	In case of inadequate ventilation wear respiratory protection	
	P201	Obtain special instructions before use	
	P202	Do not handle until all safety precautions have been read and understood	
	P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection	
	P273	Avoid release to the environment	
Precautionary Statements	Respos		
	P301+P310	IF SWALLOWED: Immediately Call a POISON CENTER/doctor	
	P321	Specific treatment (see on this label)	
	P330	Rinse mouth	
	P302+P312	IF ON SKIN : Call a poison center/DOCTOR/ if you feel unwell	
	P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing	
	P310	Immediately call a POISON CENTER or doctor/physician.	
	P320	Specific treatment is urgent (see on this label)	
	P332+P313	If skin irritation occurs : Get medical advice/attention	
	P305+P351 +P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	
	P337+P313	If eye irritation persist: Get medical advice/attention	
	P308+P313	IF exposed or concerned : Get medical advice/attention	
	P308+P311	IF exposed or concerned : call a POISON CENTER/doctor	
	P321	Specific treatment (see on this label)	
	P314	Get medical advice/attention if you feel unwell	
	P391	Collect spillage	
	Precautionary Statements	Storage	
		P405	Store locked up
		P403+P233	Store in wellll 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>2,3-dihydro-2,2-dimethylbenzofuran-7-yl N-methylcarbamate</i>	1563-66-2	75
Others	-	25



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SECTION 4 - FIRST- AID MEASURES

- Eye : IF IN EYES, rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- 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. Call a poison center/DOCTOR/ if you feel unwell.
- 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, or water spray
- Specific Hazard of Fire : Irritating and toxic gas

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 handle until all safety precautions have been read and understood. Do not breathe dust, vapour or mist. This product causes mild irritation to skin and eye. Do not get in eyes or skin. 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.

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) : 0.1 mg/m³ (V) TLV-TWA 8hr

Personal Protective Equipment

- Eye Protection : Safety glasses or face shield
- Gloves : Chemical resistant gloves
- Clothing Protection : Wear clothing with long sleeve
- Respiratory Protection : Mask, in case of inadequate ventilation wear respiratory protection that recommended by NIOSH



SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

1	Physical Appearance	: Powder
2	Color	: White to cream
3	Odor	: Not available
4	Odor Threshold	: Not available
5	pH (1%)	: 8.39
6	Melting Point	: Not available
7	Freezing Point	: Not available
8	Boiling Point	: Not available
9	Flash Point	: Not available
10	The rate of Evaporation	: Not available
11	Flammability	: Not available
12	Lower Explosive Limit (LEL)	: Not available
13	Vapour Pressure	: Not available
14	Molecular weight	: Not available
15	Decomposition temperature	: Not available
16	Autoignition temperature	: Not available
17	Viscosity	: Not available
18	Bulk Density	: 0.3421
19	Density relative	: Not available
20	Solubility in water	: Not available
21	Koefisien partition : n-octanol/water	: Not available

SECTION 10 - STABILITY AND REACTIVITY

Reactivity	: None known
Stability	: Stable under normal storage condition
Hazardous Reaction under Specific Condition	: Not available
Condition to Avoid	: Avoid excessive temperature. Decomposes > 150°C.
Incompatible material to avoid	: Unstable in alkaline material
Hazardous Product of Decomposition	: Irritating and toxic gas
Hazardous Polymerization	: Will not occur

SECTION 11 - TOXICOLOGICAL INFORMATION

Acute Toxicity (oral) LD ₅₀	: 10.67 mg/kg (ATEmix) 1152 mg/kg for female rats (Pesticide Manual,2009) The neurologic symptom which indicates cholinesterase inhibits activities in the exposure tests to human in ACGIH (2004) was observed, and that the sensorimotor neuropathy was observed in the ingestion of very large amounts case (NITE, 2006).
Acute Toxicity (dermal) LD ₅₀	: >2000 mg/kg (ATEmix)
Acute Toxicity (inhalation) LC ₅₀	: 0.1 mg/l (ATEmix)
Subchronic toxicity (90 days) - Technical Material	: Not available
Chronic Toxicity (2 years) -Technical Material	: In the oral study for two years using rats in ACGIH (2004), reduction in brains cholinesterase activities was observed with the given dose within the guidance value range of Category 1, and that in the oral study for one year using dogs in ACGIH



	(2004) and IRIS (2006) the effects on the nervous system and testes were observed with the given dose (NITE, 2006).
Mutagenicity in germ cells - Technical Material	: There is a positive result from the micronucleus test using mouse erythrocytes, which is an in vivo mutagenicity test using somatic cells (ACGIH, 2004 in NITE, 2006)
Carcinogenicity	: No carcinogenic activity
Eye Irritation	: Mild irritant (Pesticide Manual, 2009)
Skin Irritation	: Mild irritant (Pesticide Manual, 2009)

SECTION 12 - ECOLOGICAL INFORMATION

Acute Toxicity

Fish - <i>Bluegill sunfish</i> (LC ₅₀ 96 h)	: 1.75 mg
Fish - <i>Golden orfe</i> (LC ₅₀ 96 h)	: 7.3 – 362.5 µg/l
Daphnia - <i>Daphnia Magna</i> (LC ₅₀ 48 h)	: 38.6 µg/l
Bird - <i>Japanese quail</i> (LD ₅₀)	: 0.7 - 8 mg/kg
Bio accumulation	: Not available
Persistence and degradation by environment	: DT ₅₀ in soil c. 50 – 60 d. Most important metabolite is CO ₂ formed by microbiological degradation of the phenol compounds K _{oc} 22.
Soil Mobility	: Not available
Others adverse effect	: 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 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 (Carbofuran 75%)
Class Danger Transport	: 6.1
UN Number	: UN 2757
Packing Group	: I

IMDG (INTERNATIONAL MARITIME DANGEROUS GOODS)

UN Number	: UN 2757
Class and Packing group	: 6.1 and I
Proper shipping name	: CARBAMATE PESTICIDE, SOLID, TOXIC (Carbofuran 75%)
Marine Pollutant	: Yes (Carbofuran)

IATA (INTERNATIONAL AIR TRANSPORT ASSOCIATION)

UN Number	: UN 2757
Class and Packing group	: 6.1 and I
Proper shipping name	: CARBAMATE PESTICIDE, SOLID, TOXIC (Carbofuran 75%)

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



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