SECTION 1 - IDENTIFICATION

Product Name: OXAMYL 42% SL
Active Ingredients: Oxamyl
Synonym: N,N-dimethyl-2-methylcarbamoyloxyimino-2-(methylthio) acetamide
Recommended use and restrictions on use: Insectiside
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

SECTION 2 - HAZARDS IDENTIFICATION

GHS Classification:
- Acute Toxicity (Oral): Category 2
- Acute Toxicity (Dermal): Category 5
- Acute Toxicity (Inhalation): Category 1
- 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 3
- Skin Irritation: Category 2
- Serious damage to eyes / irritation: Category 2A
- Skin Sensitization: Category 1
- Flammable Liquid: Category 3

GHS Labelling:

Signal Word: Danger

Hazard statements:
- H300 Fatal if swallowed
- H313 May be harmful in contact with skin
- H330 Fatal if inhaled
- H370 Causes damage organs (neurology system)
- H372 Causes damage organs (neurology and vascular system) through prolonged or repeated exposure
- H400 Very toxic to aquatic life
- H412 Harmful to aquatic life with long lasting effects
- H315 Causes skin irritation
- H319 Causes serious eye irritation
SAFETY DATA SHEET

Precautionary Statements

**Prevention**

- H317 May cause an allergic skin reaction
- H226 Flammable liquid and vapour

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
P271 Use only outdoors or in well ventilated area
P284 (In case of inadequate ventilation) wear respiratory protection
P272 Contaminated work clothing should not be allowed out of the workplace
P273 Avoid release to the environment
P210 Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.
P233 Keep container always closed
P240 Ground and bond container and receiving equipment
P241 Use explosion-proof (electrical/ventilating/lighting) equipment
P242 Use non sparking tools
P243 Take action to prevent static discharges
P280 Wear protective gloves/protective clothing/eye protection/face protection

**Respons**

- P301+P310 If swallowed: Immediately call a poison center/doctor
- P321 Specific treatment (see on this label)
- P330 Rinse mouth
- P312 Call a poison center/doctor if you fell unwell
- P304+P340 If inhaled: Remove person to fresh air and keep comfortable for breathing
- P310 Immediately call a poison center/doctor
- P320 Specific treatment is urgent (see on this label)
- P391 Collect spillage
- P303+P361 If on skin (or hair): take off immediately all contaminated clothing. Rinse skin with water (or shower)
- P370+P378 In case of fire, use appropriate fire extinguisher to extinguish.
- P302+P352 IF ON SKIN: Wash with plenty of water
- P332+P313 If skin irritation occurs: Get medical advice/attention.
- P362+P364 Take off contaminated clothing and wash it before reuse.
- P305+P351 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.
- P314 Get medical advice/attention if you fell unwell
- P308+P311 IF exposed or concerned: call a poison center / doctor
SAFETY DATA SHEET

Precautionary Statements

Storage

P405 Store locked up
P403+P233 Store in well ventilated place. Keep container tightly closed.
P403+P235 Store in well ventilated place. Keep cool.
P501 Dispose of contents/container in accordance with local regulations / regional / national / international

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>CAS NO</th>
<th>CONCENTRATION (%)</th>
</tr>
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<tbody>
<tr>
<td>N,N-dimethyl-2-methylcarbamoyloxyimino-2- (methylthio) acetamide</td>
<td>23135-22-0</td>
<td>42</td>
</tr>
<tr>
<td>Cyclohexanone</td>
<td>108-94-1</td>
<td>23</td>
</tr>
<tr>
<td>Other material</td>
<td>-</td>
<td>35</td>
</tr>
</tbody>
</table>

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: Heating can release vapors which can be ignited. Firefighters must consider the nature of the product and use the poison face shields, full breathing apparatus and flame resistant clothing.

Extinguishing Media: Use water spray, dry chemical. Do not use high volume water jet.

Specific Hazard of Fire: COX, NOX, SOX

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Use Personal protective equipment.
Dike spill. Prevent product from entering drains or water courses. Soak up with sawdust, sand, oil dry or other absorbent material. Shovel or sweep up. Never return to container for reuse. Scoop into bags or boxes with plastic or aluminum shovel.
Contaminated extinguishing water must be disposed of in accordance with official regulations.

SECTION 7 - HANDLING AND STORAGE

Handling: Do not breathe vapour or mist. 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.

SECTION 8 - EXPOSURE CONTROL / PERSONAL PROTECTION

Engineering control: Use only with adequate ventilation
Threshold Limit Value: 0.32 mg/m³ – 8 hr (Slight symptoms of cholinesterase activity inhibition – rat AEGLs, EPA 2000)

Personal Protective Equipment
Eye Protection: Safety goggles and protective eye
Gloves: Chemical resistant gloves
Clothing Protection: Long -sleeved clothing and long sleeve pants, shoes and socks, chemical-resistant headgear mask
Respiratory Protection: Mask, in case of inadequate ventilation wear respiratory protection that recommended by NIOSH

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

1 Physical Appearance: Liquid
2 Color: Clear Dark Blue
3 Odor: Not available
4 Odor Threshold: Not available
5 pH (1%): 2.5-4
6 Melting Point: Not available
7 Freezing Point: Not available
8 Boiling Point: Not available
9 Flash Point: 51.7 °C
10 The rate of Evaporation: Not available
11 Flammability: Not available
12 Upper/lower flammability: Not available
13 Vapour Pressure: 14.1 mm Hg (20 °C)
14 Molecular weight: Not available
15 Decomposition temperature: Not available
16 Autoignition temperature: Not available
17 Viscosity: Not available
18 Bulk Density: Not available
19 Density relative: 1.08-1.100
20 Water Solubility: Miscible
21 Koefisien partition : n-octanol/water: Not available

SECTION 10 - STABILITY AND REACTIVITY

Reactivity: Corrosive effects to metal
Stability: Decomposes under alkaline conditions or in presence of moisture. Sensitive to heat and light.

Hazardous Reaction under Specific Condition: Not available
Condition to Avoid: Heat, sparks, or open flame.
Incompatible material to avoid: strong acids or bases (slowly hydrolyzes)
Hazardous Product of Decomposition: No hazardous decomposition products if stored and handled as prescribed/indicated.

Hazardous Polymerization: Will not occur.

SECTION 11 - TOXICOLOGICAL INFORMATION

Acute Toxicity (oral) LD$_{50}$: 5.62 mg/kg Rat (ATEmix)
An acute oral LD50 of 2.5 mg/kg of body weight was calculated for female rats and 3.1 mg/kg for male rats gave oral doses of oxamyl (90% a.i.). Clinical signs that were observed included heavy breathing, fasciculations, salivation and lacrimation (EPA, 2004).

Acute Toxicity (dermal) LD$_{50}$: 2015 mg/kg Rabbit (ATEmix)

Acute Toxicity (inhalation) LC$_{50}$: 0.13 mg/l Rat (ATEmix)

Subchronic toxicity (90 days) - Technical Material: Repeated oral doses of 2.4 mg/kg of oxamyl given 5 days/week for 2 weeks caused the animals also had slight body weight decreases, exhibited salivation and slight pallor. The animals also exhibited typical anticholinesterase symptoms such as fasciculations and salivation soiled fur, lacrimation, salivation, slow righting reflex, abnormal gait, tremors, impaired locomotion, no response to tail pinch, increased limb splay, incoordination, labored breathing, decreased forelimb and hind limb grip strength (EPA, 2004).

Chronic Toxicity (2 years) - Technical Material: Not available

Mutagenicity in germ cells: No mutagenicity

Carcinogenicity: No carcinogenic activity

Skin Sensitization (Cyclohexanone): Cyclohexanone is on the Frosch contact allergen list (FROSCH, TEXTBOOK OF CONTACT DERMATITIS)

Eye Irritation (Cyclohexanone): The undiluted substance placed in the eyes of rabbits produced marked irritation and corneal injury

Skin Irritation (Cyclohexanone): Rabbits exhibited necrosis after occlusive application of one sample

SECTION 12 - ECOLOGICAL INFORMATION

Acute Toxicity (Oxamyl Technical)

Fish - Rainbow trout(LC$_{50}$ 96 h): 4.2 mg/l (Pesticide Manual, 2009)
Daphnia - Daphnia (LC$_{50}$ 48 h): 0.319 mg/l (Pesticide Manual, 2009)
Daphnia - Daphnia (NOEC 21 d): 0.77 (FAO, 2008)
Algae - Green algae (EC$_{50}$ 96 h): 3.3 mg/l (Pesticide Manual, 2009)
Bird - Mallard Duck (LD$_{50}$): 3.83 mg/kg (Pesticide Manual, 2009)

Bio accumulation: Low potential to bio-concentrate.

Persistence and degradation by environment: In the soil, oxamyl degrades rapidly with a half-life of 2 to 4 weeks under aerobic conditions and less than 1 week under anaerobic conditions. Not persistent in soil or water.

Soil Mobility: Mobility increased as the amount of organic matter decreased in the soil.

Others adverse effect: Not available
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 (short-term) and harmful 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, LIQUID, TOXIC, FLAMMABLE, flash point not less than 23 °C (Oxamyl, Cyclohexanone)
Class Danger Transport: 6.1
UN Number: UN 2991
Packing Group: II

IMDG (INTERNATIONAL MARITIME DANGEROUS GOODS)
UN Number: UN 2991
Class and Packing group: 6.1 and II
Proper shipping name: CARBAMATE PESTICIDE, LIQUID, TOXIC, FLAMMABLE, flash point not less than 23 °C (Oxamyl, Cyclohexanone)
Marine Pollutant: Yes (Oxamyl)

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
3. GHS Building Blocks Sixth revised edition

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 Sixth 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
8. OECD SIDS. Identifiers, Physical and Chemical Properties: Cyclohexanone. UNEP.