SECTION 1 - IDENTIFICATION

Product Name: BPMC 98 TC
Active Ingredients: Fenobucarb
Synonym: 2-sec-butyl phenyl methyl carbamate
Recommended use and restrictions on use: Used for Active ingredients of Insecticide
Company Identification: PT Inti Everspring Indonesia
Address: 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 4
- Acute Toxicity (Dermal): Category 3
- Acute Toxicity (Inhalation): Category 1
- Chronic Aquatic Toxicity: Category 1
- Eye Damage/Irritation: Category 2B
- Skin irritation / Corrosive: Category 3
- Specific Target Organ Toxicity (Single Exposure): Category 1

GHS Labelling Symbol (s):

Signal Word: Danger

Hazard statements:
- H302: Harmful if swallowed
- H311: Toxic in contact with skin
- H330: Fatal if inhaled
- H410: Very toxic to aquatic life with long lasting effects
- H316: Causes mild skin irritation
- H320: Causes eye irritation
- H370: Causes damage to organs (nervous system)

Precautionary Statements:

Prevention:
- P260: Do not breathing dust/fume/gas/mist/vapors/spray
- P264: Wash thoroughly after handling
- P270: Do not eat, drink, or smoke when using this product
- P271: Use only outdoors or in a well-ventilated area.
- P273: Avoid release to the environment.
- P280: Wear protective gloves/protective clothing/eye protection/face protection
- P284: In case of inadequate ventilation wear respiratory protection
Precautionary Statements

Respons
P301+P312 IF SWALLOWED: Immediately call a poison center/doctor
P330 Rinse mouth
P302+P352 IF ON SKIN: wash with plenty of water
P312 Call a poison center/doctor if you felt unwell
P321 Specific treatment (see on this label)
P361+P364 Take off immediately all contaminated clothing and wash it before us
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
P332+P313 If skin irritation occurs: Get medical advice/attention
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.
P308+P311 IF exposed or concerned: Call a POISON CENTER/doctor

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 regulations / regional / national / international

Other Hazard

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS NO</th>
<th>Concentration (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-sec-butyl/phenyl methylcarbamate</td>
<td>3766-81-2</td>
<td>98</td>
</tr>
</tbody>
</table>

SECTION 4 - FIRST-AID MEASURES

Eye: Open your eyes and wash carefully with flushing water continuously for 15-20 minutes. If the eyes are still irritated, contact a poison control center or doctor for further treatment.

Skin: Wash the skin immediately with soap and running water for 15-20 minutes. If skin irritation occurs, the use of oils or lotions containing vitamin E may be considered. Contact Poisoning Treatment Center or doctor for treatment.

Ingestion: Rarely ingested liquid aerosol; However, if swallowed do not provide the action that triggers vomiting, rinse your mouth with water. Immediately contact your doctor.

Inhalation: Move the patient to place air-fresh air and keep at rest. Keep the patient warm and at rest. Immediately contact your doctor for further treatment.

Facility: Provide facilities / water (eye wash, emergency shower) in the work area.

Symptoms that arise: *Fenobucarb* is a *carbamate* class of compounds which inhibit the action of enzymes acetyl cholinesterase and disrupt the central nervous system. Symptoms that may
arise if someone poisoning are headache; blurred vision; limp; sweating nausea and vomiting. Worse may experience seizures and respiratory problems.

SECTION 5 - FIRE FIGHTING MEASURES

General Information: Firefighters should consider the nature of the poison of the product and use a face shield, a complete self-contained breathing apparatus and fire retardant clothing.

Extinguishing Media: Water, dry chemical, foam, CO₂

Hazardous Decomposition: Nitrite, Chloride, CO₂

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Isolation spill area and restrictions on the entry. Absorb spill with absorbent material such as sand, wash and put in a container. Clean the spill area with detergent former and water then rinse with clean water. Collect used washing water into the container. Do not allow spills contaminate sources of water / drainage, as well as surface water. Dispose of containers that contain the spill, the former washing water, and the former sand / other absorbent material in accordance with local regulations / national / international regulations.

SECTION 7 - HANDLING AND STORAGE

Handling: Do not breathe vapour or mist. This product causes mild eye and skin 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.

SECTION 8 - EXPOSURE CONTROL / PERSONAL PROTECTION

Engineering control: Make sure the product handling is done in a place that is well ventilated

Personal Protective Equipment

Eye Protection: Safety goggles

Gloves: Rubber gloves with chemical resistant

Clothing Protection: Long-sleeved clothing and long sleeve pants, shoes and socks, chemical-resistant headgear

Respiratory Protection: Chemical mask

Breathing Protection: According to the recommendations contained breathing apparatus NIOSH if the concentration in the air exceeds the level of effective air purifying respirator, or when it reaches the level Immediately dangerous to life or health (IDLH).

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

1 Physical Appearance: Liquid

2 Color (concentrate): Clear colorless to yellowish Liquid

3 Odor: A bit Phenol odor

4 Odor Threshold: No data available

5 pH (concentrate): 5 - 9
<table>
<thead>
<tr>
<th></th>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Melting point</td>
<td>31.4 °C</td>
</tr>
<tr>
<td>7</td>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>8</td>
<td>Boiling point</td>
<td>112-113 °C</td>
</tr>
<tr>
<td>9</td>
<td>Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>10</td>
<td>The rate of Evaporation</td>
<td>No data available</td>
</tr>
<tr>
<td>11</td>
<td>Flammability</td>
<td>No data available</td>
</tr>
<tr>
<td>12</td>
<td>Upper/lower flammability</td>
<td>No data available</td>
</tr>
<tr>
<td>13</td>
<td>Vapor Pressure</td>
<td>9.9 mPa at 20 °C</td>
</tr>
<tr>
<td>14</td>
<td>Molecular weight</td>
<td>No data available</td>
</tr>
<tr>
<td>15</td>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>16</td>
<td>Auto ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>17</td>
<td>Viscosity</td>
<td>No data available</td>
</tr>
<tr>
<td>18</td>
<td>Bulk Density</td>
<td>No data available</td>
</tr>
<tr>
<td>19</td>
<td>Density relative</td>
<td>1.035 g/ml</td>
</tr>
<tr>
<td>20</td>
<td>Water Solubility</td>
<td>420 mg/l (20 °C)</td>
</tr>
<tr>
<td>21</td>
<td>Coefficient partition : n-octanol/water</td>
<td>No data available</td>
</tr>
</tbody>
</table>

**SECTION 10 - STABILITY AND REACTIVITY**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reactivity</td>
<td>No data available</td>
</tr>
<tr>
<td>Stability</td>
<td>Stable at normal temperatures and storage</td>
</tr>
<tr>
<td>Hazardous reactions are possible under specific conditions</td>
<td>No data available</td>
</tr>
<tr>
<td>Condition to Avoid</td>
<td>Excessive temperature, flames, and fire</td>
</tr>
<tr>
<td>Incompatible material to avoid</td>
<td>Strong acids and base</td>
</tr>
<tr>
<td>Hazardous Product of Decomposition</td>
<td>Nitrite, Chloride, CO₂</td>
</tr>
<tr>
<td>Hazardous Polymerization</td>
<td>No data available</td>
</tr>
</tbody>
</table>

**SECTION 11 - TOXICOLOGICAL INFORMATION**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Toxicity (oral) LD&lt;sub&gt;50&lt;/sub&gt;</td>
<td>623 mg/kg for male rate and 657 mg/kg for female rat. Clonic convulsions were observed at the dosage within the guidance values for Category 1, in an oral administration test using rats (Agricultural Chemical Abstracts), so it was judged that the target organ was the nervous system (NITE, 2006).</td>
</tr>
<tr>
<td>Acute Toxicity (dermal) LD&lt;sub&gt;50&lt;/sub&gt;</td>
<td>250 mg/kg for female rat</td>
</tr>
<tr>
<td>Acute Toxicity (inhalation) LC&lt;sub&gt;50&lt;/sub&gt;</td>
<td>&gt;0.366 mg/l for rat 4 hours</td>
</tr>
<tr>
<td>Subchronic toxicity (90 days)</td>
<td>No data available</td>
</tr>
<tr>
<td>Chronic Toxicity (2 years)</td>
<td>Chronic effect for 2 years observed 4.1 mg/kg for rat with diet/day 100 mg/kg (NITE, 2006).</td>
</tr>
<tr>
<td>Mutagenicity in germ cells</td>
<td>No mutagenicity</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>No carcinogenic activity</td>
</tr>
<tr>
<td>Eye Irritation</td>
<td>Mild eye irritation</td>
</tr>
<tr>
<td>Skin irritation</td>
<td>Mild eye irritation</td>
</tr>
</tbody>
</table>

**SECTION 12 - ECOLOGICAL INFORMATION**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Toxicity</td>
<td></td>
</tr>
<tr>
<td>Fish</td>
<td><em>Crap</em> LC&lt;sub&gt;50&lt;/sub&gt; 96 hours</td>
</tr>
<tr>
<td>Invertebrate</td>
<td><em>Daphnia</em> LC&lt;sub&gt;50&lt;/sub&gt; 48 hours</td>
</tr>
<tr>
<td>Bird</td>
<td><em>Mallard Duck</em> LD&lt;sub&gt;50&lt;/sub&gt; 5 days</td>
</tr>
<tr>
<td>Potential bioaccumulation</td>
<td></td>
</tr>
</tbody>
</table>
Persistence and degradation by environment : No data available
Soil Mobility : No data available
Others adverse effect : Very toxic for bees

SECTION 13 - DISPOSAL CONSIDERATIONS
Disposal, storage or cleaning equipment should not be used to contaminate food, fodder or water. Read the instructions extermination listed on the product label. The product is highly toxic to aquatic life with long effects. Do not contaminate domestic water or other water sources. Disposal Containers / Packaging: Destroy empty container and dispose of / destroyed in accordance with local / national / international. Do not use a used container for any purpose.

SECTION 14 - TRANSPORT INFORMATION
DOT (US)
Proper shipping name : CARBAMATE PESTICIDE, LIQUID, TOXIC (BPMC TECHNICAL)
Class Danger Transport : 6.1
UN Number : UN 2992
Packing Group : II

IMDG (INTERNATIONAL MARITIME DANGEROUS GOODS)
Proper shipping name : CARBAMATE PESTICIDE, LIQUID, TOXIC (BPMC TECHNICAL )
Class Danger Transport : 6.1
UN Number : UN 2992
Packing Group : II
Marine Pollutant : Yes (Fenobucarb)

IATA (INTERNATIONAL AIR TRANSPORT ASSOCIATION)
UN Number : UN 2992
Class and Packing group : 6.1 and II
Proper shipping name : CARBAMATE PESTICIDE, LIQUID, TOXIC (BPMC 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
3. GHS Building Blocks Seventh 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. Safety Data Sheet is valid for 5 years from publication.

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