

# MATERIAL SAFETY DATA SHEET

## FenproMight 200 g/l EC

### 1. IDENTIFICATION OF THE SUBSTANCE AND THE COMPANY.

**Product name** : Fenpropathrin 200 g/l EC

**Chemical Formula** :  $C_{25}H_{23}NO_3$

**Mol. wt.** : 349.4

**Group** : Pyrethroid

**Manufacturer** : **ANGLO GULF LIMITED**

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### 2. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical characterization | CAS Registry No. | Concentration |
|---------------------------|------------------|---------------|
| Fenpropathrin             | 3915-41-8        | 200 g/l       |
| Solvent Neptha 100        | 64742-95-6       | 700 g/l       |
| Other ingredients         |                  | 100 g/l       |

(RS)-~~cyano~~-cyano-3-phenoxybenzy- Benzyl 2,2,3,3-tetramethylcyclopropane- carboxylate

### 3. HAZARDS IDENTIFICATION

**Toxicity class:** WHO (a.i.) II; EPA (formulation) II. A moderately toxic insecticide.

**Main hazard:** Toxic if swallowed,

**Eye contact:** The product may cause substantial but temporary eye damage.

**Skin contact:** Harmful if absorbed through the skin. The product is irritating.

**Ingestion:** Toxic if ingested. See point 4 for symptoms.

**Inhalation:** Harmful by inhalation. See point 4 for symptoms.

## 4. FIRST AID MEASURES

Symptoms of exposure to the product include: mucous membrane irritation from inhalation, itching and burning of the skin, nausea, vomiting, and gastro-enteritis with diarrhea, nervousness, anxiety, salivation, in coordination, tremors, muscular paralysis, convulsions, coma, and death through respiratory failure.

Fenpropathrin can induce numbness, itching, tingling, and burning sensations in exposed workers, which develop after a latent period of approximately 30 min, peak by 8 hours, and disappear within 24 hours.

### **Inhalation:**

The product is slightly toxic to internal organs. Remove source of contamination or move victim to fresh air. Keep affected person warm and at rest. Supply oxygen if necessary. Treat symptomatically and supportively. Seek medical advice immediately.

### **Skin contact:**

The product is a moderate skin irritant. Contact could cause prolonged (days) injury to the affected area. Remove contaminated clothing, shoes and leather goods. Gently wipe off excess chemical. Wash skin gently and thoroughly with water and non-abrasive soap followed by alcohol. Seek medical advice if necessary

### **Eye contact:**

Moderate eye irritant Signs and symptoms may include pain, tears, swelling, redness and blurred vision. Remove contact lenses if worn. Immediately flush eyes with gently flowing lukewarm water or saline solution for 20 minutes, holding the eyelid(s) open. Seek medical attention if necessary.

### **Ingestion:**

The product is moderately toxic to internal organs. Remove by gastric lavage and catharsis. Supply oxygen if respiration is depressed. Do not perform gastric lavage if victim is unconscious. Seek medical advice immediately. Administration of lavage or oxygen should be performed by qualified medical personnel. Do not administer milk, cream, or other substances containing vegetable or animal fats which enhance absorption of Pyrethroids.

### **Advice to physician:**

This formulation contains xylene. Diazepam has been recommended to reduce the CNS effects of Fenpropathrin. Treat symptomatically and supportively. Gastric lavage may be required and must be administered by qualified medical personnel, followed by ingestion of activated charcoal with water.

## 5. FIRE-FIGHTING MEASURES

### **Fire and explosion hazard:**

The product is flammable. Hydrogen cyanide may be formed during thermal decomposition.

**Extinguishing agents:**

Extinguish small fires with carbon dioxide, dry powder, or alcohol-resistant foam. Water spray can be used for cooling of unaffected stock, but avoid water coming in contact with the product. Contain water used for fire fighting for later disposal.

**Fire fighting:**

Remove container from fire area if possible. Contain fire control agents for later disposal. Use a recommended extinguishing agent for the type of surrounding fire. Water can be used to cool unaffected containers but must be contained for later disposal. Avoid inhaling hazardous vapors. Keep upwind.

**Personal protective equipment:**

Fire may produce irritating or poisonous vapors (carbon dioxide), vapor or other products of combustion. Fire fighters and others that may be exposed should wear full protective clothing and self-contained breathing apparatus.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions:** Do not inhale fumes. Ventilate area of spill or leak, especially confined areas. Avoid contact with skin and eyes. For personal protection see Section 8.

**Environmental precautions:** Do not allow entering drains or watercourses. When the product contaminates public waters, inform appropriate authorities immediately in accordance with local regulations.

**Occupational spill:** Do not allow the product to come in contact with water systems.

**Small liquid spills:** Soak up with sand or other suitable noncombustible absorbent material, and place into containers for subsequent disposal.

**Large spills:** Contain liquid far ahead of spill. Contain spillage and contaminated water for subsequent disposal. Do not flush spilled material into drains. Keep spectators away and upwind.

## 7. HANDLING AND STORAGE

**Handling:**

Harmful by inhalation or if swallowed. Avoid contact with eyes and skin, and inhalation of fumes. Use with adequate ventilation. Wash hands before eating, drinking, chewing gum, smoking or using the toilet. Operators should change and wash clothing daily. Remove clothing immediately if the insecticide gets inside. Then wash skin thoroughly using a non-abrasive soap and put on clean clothing. Do not apply directly to areas where surface water is present, or to intertidal areas below the mean high water mark. Water used to clean equipment must be disposed of correctly to avoid contamination.

**Storage:**

Keep under lock and key and out of reach of unauthorized 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.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering control measures:** It is essential to provide adequate ventilation. Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire and other applicable regulations. If engineering controls and work practices are not effective in controlling exposure to this material, then wear suitable personal protective equipment including approved respiratory protection.

### PERSONAL PROTECTIVE EQUIPMENT:

**Respirator:** An approved respirator suitable for protection from dusts and mists of pesticides is required. Limitations of respirator use specified by the approving agency and the manufacturer must be observed.

**Clothing:** Employee must wear appropriate protective (impervious) clothing and equipment to prevent skin contact with the substance.

**Gloves:** Employee must wear appropriate synthetic protective gloves to prevent contact with this substance.

**Eye protection:** The use of safety goggles is recommended.

**Emergency eye wash:** Where there is any possibility that an employee's eyes may be exposed to this substance; the employer should provide an eye wash fountain or appropriate alternative within the immediate work area for emergency use.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

|  |   |
|--|---|
| <b>Appearance</b>                                  | : Light amber to amber liquid.  |
| <b>Odour</b>                                       | : Aromatic odour.   |
| <b>Flammability</b>                                | : Flammable.  |
| <b>Flash point</b>                                 | : Above 32°C  |
| <b>Oxidising properties</b>                        | : No data available.  |
| <b>pH</b>  | : 4 - 7   |
| <b>Melting point</b>                               | : 45 - 50°C (technical material)  |
| <b>Density</b>                                     | : 0.940 (+/- 0.05) g/ml at 20 °C.   |
| <b>Solubility in water</b>                         | : Emulsifiable with water.  |
| <b>Storage stability</b>                           | : Stable for up to 2 years under normal warehouse Conditions. Stable at 0°C and 53°C.   |
| <b>Solubility in organic solvents</b>              | : (All solubility figures in g/kg at 25 oC for active Ingredient.) Xylene, acetone, chloroform, ethyl acetate, dimethyl sulfoxide |
| <b>Partition-coefficient in n-octanol / water:</b> | <i>Data for active material:</i> Kow log P: 6, 0  |

## 10. STABILITY AND REACTIVITY.

**Stability:** Stable under normal temperatures and pressures.

**Incompatibility:** Compatible with many insecticides, fungicides and acaricides, but incompatible with alkaline substances and alcohols. A compatibility test is required before using with other products. Do not physically mix concentrate directly with other pesticide concentrates; always dilute first. Alkaline substances may reduce the activity of the product.

**Thermal decomposition:** Toxic fumes of chlorine and toxic oxides of nitrogen and carbons are produced when the product decomposes on heating.

## 11. TOXICOLOGICAL INFORMATION.

### BASED ON THE ACTIVE INGREDIENT

|                              |   |
|------------------------------|---|
| <b>Acute oral LD50</b>       | : 70.6 mg/kg in male rats.  |
| <b>Acute dermal LD50</b>     | : 1600 mg/kg rats. > 2000 mg/kg (Rabbit)  |
| <b>Acute inhalation LC50</b> | : >0.096mg/l. (max. attainable concentration for technical product). >1.43 mg/l male rats (formulation) |
| <b>Acute skin irritation</b> | : Moderate skin irritant.   |
| <b>Acute eye irritation</b>  | : Moderate eye irritant.  |
| <b>Dermal sensitization</b>  | : Not a sensitizer  |
| <b>Carcinogenicity</b>       | : Animal studies did not detect carcinogenic activity.  |
| <b>Teratogenicity</b>        | : Animal studies did not detect any teratogenic effects.  |
| <b>Mutagenicity</b>          | : Animal studies did not detect any mutagenic activity.   |

## 12. ECOLOGICAL INFORMATION.

**Highly toxic to fish.**

### ECOTOXICOLOGY:

**Data as for active ingredient.**

**Birds:** Acute oral LD50: 1089 mg/kg (mallard duck).

**Fish:** Highly toxic to fish.

LC50 (48 hr): 1.95 µg/l (blue gill sunfish).

LC50 (96 hr): 0,0036mg/l (rainbow trout).

**Daphnia:** Toxic to *Daphnia magna*. LC50 (48 h): 0.53 µg/l

**Earthworms:** Not available.

**Algae (*Selenastrum capricornutum*):** > 2mg/l

**Degradability:** Degraded principally by photolysis.

**Sandy loam:** DT50 2, 7 weeks in river water. Duration of activity in soil is c. 1-5 days.

### 13. DISPOSAL CONSIDERATIONS

#### **Pesticide disposal:**

Contaminated absorbents, surplus product, etc., should be burned in a high-temperature incinerator (1000 °C) with effluent gas scrubbing. Never pour untreated waste or surplus products into public sewers or where there is any danger of runoff or seepage into water systems. Comply with local legislation applying to waste disposal.

#### **Package product wastes:**

Emptied containers retain vapour and product residues. Observe all labeled safeguards until container is destroyed. Combustible containers should be disposed of in pesticide Incinerators. Non-combustible containers must first be triple rinsed with water, then punctured and transported to a scrap metal facility for recycling or disposal.

### 14. TRANSPORT INFORMATION.

|                           |  |
|---------------------------|--|
| <b>UN NUMBER</b>          | : 3351   |
| <b>ADR/IRD:</b>           |  |
| <b>Substance Name</b>     | : Pyrethroid pesticide, liquid, toxic, flammable.<br>(Fenprothrin 200 g/l) |
| <b>Substance ID no.</b>   | : 3351   |
| <b>Hazard ID no.</b>      | : -  |
| <b>Label</b>              | : 6.1  |
| <b>Item no</b>            | : -  |
| <b>IMDG/IMO</b>           |  |
| <b>Packaging group</b>    | : II   |
| <b>Label of class</b>     | : 6.1 Marine pollutants  |
| <b>Shipping name</b>      | : Pyrethroid pesticide, liquid, toxic, flammable<br>(Fenprothrin 200 g/l)  |
| <b>AIR/IATA</b>           |  |
| <b>Shipping name</b>      | : Pyrethroid pesticide, liquid, toxic, flammable.<br>(Fenprothrin 200 g/l) |
| <b>Class</b>              | : 6.1  |
| <b>Hazard Label</b>       | : Toxic & Flammable liquid.  |
| <b>Packaging Group</b>    | : II   |
| <b>Passenger Aircraft</b> | : Y609 (1L)  |
| <b>Cargo Aircraft</b>     | : 609 (max 5L) 611 (max. 60L)  |
| <b>Tremcard number</b>    | : 61GTF2-III   |

### 15. REGULATORY INFORMATION.

|                             |   |
|-----------------------------|---|
| <b>Symbol</b>               | F; T+; N                                    |
| <b>Indication of danger</b> | Flammable, Toxic Dangerous for environment. |
| <b>Risk phrase(s):</b>      |   |

|                             |   |
|-----------------------------|---|
| <b>R10</b>                  | Flammable.  |
| <b>R 21</b>                 | Harmful in contact with skin  |
| <b>R 25</b>                 | Toxic if swallowed.   |
| <b>R 26</b>                 | Very toxic by inhalation.   |
| <b>R 50/53</b>              | Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.            |
| <b>Safety phrases:</b>      |   |
| <b>S ½</b>                  | Keep locked up and out of the reach of children.  |
| <b>S28</b>                  | After contact with skin, wash immediately with plenty of soap and water.                                    |
| <b>S 36/37</b>              | Wear suitable protective clothing and gloves.   |
| <b>S38</b>                  | In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).     |
| <b>S 45</b>                 | In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). |
| <b>S60</b>                  | This material and its container must be disposed of as hazardous waste.                                     |
| <b>S 61</b>                 | Avoid release to the environment. Refer to special instructions.  |
| <b>Symbol</b>               | F; T+; N  |
| <b>Indication of danger</b> | Flammable, Toxic Dangerous for environment.   |
| <b>Risk phrase(s)</b>       |   |
| <b>R10</b>                  | Flammable.  |
| <b>R 21</b>                 | Harmful in contact with skin  |
| <b>R 25</b>                 | Toxic if swallowed.   |
| <b>R 26</b>                 | Very toxic by inhalation.   |
| <b>R 50/53</b>              | Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.            |
| <b>Safety phrases</b>       |   |
| <b>S 1/2</b>                | Keep locked up and out of the reach of children.  |
| <b>S28</b>                  | After contact with skin, wash immediately with plenty of soap and water.                                    |
| <b>S 36/37</b>              | Wear suitable protective clothing and gloves.   |
| <b>S38</b>                  | In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).     |
| <b>S 45</b>                 | In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). |
| <b>S60</b>                  | This material and its container must be disposed of as hazardous waste.                                     |
| <b>S 61</b>                 | Avoid release to the environment. Refer to special instructions.  |

## **16. OTHER INFORMATION**

All information and instructions provided in this Material Safety Data Sheet (MSDS) are based on the current state of scientific and technical knowledge at the date indicated on the present MSDS and are presented in good faith and believed to be correct. This information applies to the PRODUCT AS SUCH. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear. It is the responsibility of persons in receipt of this MSDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. If the recipient subsequently produces formulations(s) containing this product, it is the recipients sole responsibility to ensure the transfer of all relevant information from this MSDS to their own MSDS.