

**MATERIAL SAFETY DATA SHEET****TOPGARD 75% WP**

Revision date: 24.07.12

**1. PRODUCT IDENTIFICATION**

**Active Ingredient:** Cyromazine

**Formulation:** 75% wettable powder

**Chemical name:** N-cyclopropyl-1,3,5-triazine-2,4,6-triamine

**Chemical class:** Triazine, Insecticide

**Producer:** Almandine Corporation S.A.  
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China

**2. HAZARDS IDENTIFICATION**

**Symptoms of Acute Exposure:** Prolonged exposure may cause irritation of eyes, skin or upper respiratory tract.

**Hazardous Decomposition Products:** Can decompose at high temperatures forming toxic gases.

**3. COMPOSITION / INFORMATION ON INGREDIENTS**

| Designation                            | CAS N°.    | g/kg | Symbol | R-phrases |
|--|------------|------|--------|-----------|
| Cyromazine                             | 66216-27-8 | 750  | -      | -         |
| Fatty acid methyl tauride, sodium salt | 137-20-2   | <100 | Xi     | R41       |

See Section 15, 16 for full explanation of R-phrases.



#### 4. FIRST AID MEASURES

If poisoning is suspected, immediately contact a physician. Give the complete product name, with label sample if possible, and the type and amount of exposure.

|   |   |
|---|---|
| <b>Ingestion:</b>   | Let patient sip water but don't induce vomiting unless told to do so by doctor. Never give anything by mouth to an unconscious person.  |
| <b>Eye Contact:</b>   | Immediately rinse eyes with a large volume of running water for 10 - 15 minutes. Remove contact lenses if present, after 5 minutes, then continue to rinse eyes.                |
| <b>Skin Contact:</b>  | If on skin or clothing take off contaminated clothing. Rinse skin immediately with plenty of water for 15 – 20 minutes. Call a doctor for treatment advice.                     |
| <b>Inhalation:</b>  | If inhaled move person to fresh air. If person is not breathing give artificial respiration, preferably mouth-to-mouth if possible. Call a doctor for further treatment advice. |
| <b>Note to Physician:</b>                                     | There is no specific antidote if this product is ingested.  |
| <b>Medical Condition Likely to be Aggravated by Exposure:</b> | Individuals with pre-existing respiratory disorders should use extra care when handling this product.   |

#### 5. FIRE FIGHTING MEASURES

|  |  |
|--|--|
| <b>Flash Point</b>                                     | Not Applicable   |
| <b>Flammable Limits (% in Air):</b>                    | Not Applicable   |
| <b>Autoignition Temperature:</b>                       | Not Available  |
| <b>Flammability:</b>                                   | Not Flammable  |
| <b>Unusual Fire, Explosion and Reactivity Hazards:</b> | During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.  |
| <b>In Case of Fire:</b>                                | Use dry chemical, foam or CO2 extinguishing media. Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area. Decontaminate buildings and equipment before re-use. Water runoff can cause environmental damage. If water is used to fight fire, dike and collect the runoff. |

#### 6. ACCIDENTAL RELEASE MEASURES

|                                  |  |
|----------------------------------|--|
| <b>In case of Spill or Leak:</b> | Wear chemical safety glass goggles, rubber gloves, rubber boots, long-sleeved shirt, long trousers, head covering, and use relevant particulate filter. Control the spill at its source. |
|----------------------------------|--|



For small spills, sweep up, keeping dust to a minimum, and place in an approved chemical container. Wash the spill area with water containing a strong detergent, absorb with other absorbent material, sweep up and place in a chemical container. Seal the container and handle in an approved manner. Flush the area with water to remove any residue. Do not allow wash water to contaminate watercourses. Pick up washings with additional absorbent, place in container, seal and arrange for disposal.

**7. HANDLING AND STORAGE**

|                  |  |
|------------------|--|
| <b>Handling:</b> | Prevent eating, drinking and smoking in areas where there is a potential for exposure to the material. Always wash thoroughly after handling.                                |
| <b>Storage:</b>  | Store the material in a well-ventilated, secure area out of the reach of children and domestic animals. Do not store food beverages or tobacco products in the storage area. |

**8. EXPOSURE CONTROLS AND PERSONAL PROTECTION**

|                      |   |
|----------------------|---|
| <b>Ingestion:</b>    | Prevent eating, drinking and smoking in areas where there is a potential for exposure to the material. Always wash thoroughly after handling.                       |
| <b>Eye Contact:</b>  | Wear safety glasses with side shields, or chemical goggles.   |
| <b>Skin Contact:</b> | Wear rubber gloves, rubber boots, long-sleeved shirt, long trousers and a head covering.  |
| <b>Inhalation:</b>   | Use process enclosures, local exhaust ventilation or other engineering controls to keep airborne levels minimal. To avoid breathing dust, use a particulate filter. |

**9. PHYSICAL / CHEMICAL PROPERTIES**

|                       |                                |
|-----------------------|--------------------------------|
| <b>Appearance:</b>    | Off-white powder               |
| <b>Odour:</b>         | Non-specific                   |
| <b>Melting Point:</b> | 224-225°C (Technical)          |
| <b>Boiling Point:</b> | Not Applicable                 |
| <b>Bulk Density:</b>  | 0.419 +/- 0.005 g/l            |
| <b>pH:</b>            | 6 - 9 (1% suspension in water) |

Page 4 / Cont'd /  
TOPGARD**Vapour pressure (a.i.):**  $4.48 \times 10^{-4}$  mPa (25°)**K<sub>ow</sub> partition coefficient:** Log P = -0.061, pH 7**10. STABILITY AND REACTIVITY****Stability:** Stable**Hazardous Polymerization:** Will not occur**Conditions to Avoid:** None known**Hazardous Decomposition Products:** Can decompose at high temperatures forming toxic gases.**11. TOXICOLOGICAL INFORMATION****Ingestion:** Oral LD<sub>50</sub> (Rat): >2,500 mg/kg**Dermal:** Dermal LD<sub>50</sub> (Rabbit): > 2,000 mg/kg**Inhalation:** Inhalation LC<sub>50</sub> (Rat) 4 h: > 0.9 mg/l air (for Tech)  
> 2.5 mg/l air  
(Maximum concentration achieved)**Eye contact:** Non-irritant (Rabbit)**Skin contact:** Mild irritant (Rabbit)**Skin Sensitization:** Not a sensitiser (Guinea Pig)**WHO Toxicity classification:** Product unlikely to present a hazard in normal use**For Technical material****Mutagenicity:** Not mutagenic**Teratogenicity:** Rabbit NOEL 5 mg/kg/day**Reproduction:** NOEL 30 mg/kg/day**Reproduction, rat:** NOEL 5 mg/kg/day**Rat developmental toxicity:** NOEL 50 mg/kg/day**Rat 2-generation:** NOEL 10 mg/kg/day**Rat foetotoxicity:** NOEL 10 mg/kg/day**Carcinogenicity:** None observed



|                          |  |
|--------------------------|--|
| <b>Chronic Toxicity:</b> | Mouse Oral NOEL 6.5 – 8.2 mg/kg/day.<br>Rat Oral NOEL 1.5 mg/kg/day. |
| <b>Target Organs:</b>    | Blood (chronic exposure)   |

## 12. ENVIRONMENTAL INFORMATION

### Ecotoxicity / Technical material

|                       |   |
|-----------------------|---|
| <b>Fish:</b>          | Guppy ( <i>Psecilia reticulata</i> ) 96 h LC <sub>50</sub> 38.87 mg/l                                     |
| <b>Aquatic fauna:</b> | <i>Daphnia magna</i> 48 h LC <sub>50</sub> >100 mg/l  |
| <b>Algae:</b>         | <i>Chlorella vulgaris</i> 72 h IC <sub>50</sub> > 100 mg/l  |
| <b>Birds:</b>         | Japanese quail LD <sub>50</sub> >5000 mg/kg   |
| <b>Bees:</b>          | LC <sub>50</sub> 25 µg /bee<br>LD <sub>50</sub> oral > 100µg/bee<br>LD <sub>50</sub> contact > 100 µg/bee |

**Environmental Fate**      Animals and birds – cyromazine is practically non-toxic and is efficiently excreted, mainly as parent compound. Safety factor is 105-106 for mammals and birds.

Plants – cyromazine is rapidly metabolised in plants. The principal metabolite is melamine.

Cyromazine is stable to hydrolysis; photolysis is the dominant physico-chemical degradation mechanism. It is not expected to build up in soils; at 5 ppm in chicken manure (12.5 tons/ha) cyromazine is <0.05 ppm in soils. Half-lives in soil manure are 1 year (laboratory) and 12 weeks (field/greenhouse).

Cyromazine should not accumulate in plants or crops, nor in animal tissues; fish bio-concentration factors are between 0.2-7.8X. Cyromazine has no detrimental effects on soil microorganisms and has low to moderate mobility in sandy or loam sand soils.

## 13. DISPOSAL CONSIDERATIONS

**Disposal:**      Do not reuse product containers. Dispose of product containers, waste containers, and residues according to local environmental regulations.



**14. TRANSPORTATION INFORMATION**

**Land/Sea/Air:** Not restricted

**15. REGULATORY INFORMATION**

**Warning:** Caution.  
Keep out of reach of children

**16. OTHER INFORMATION**

**R Phrases:**

**R41** Risk of serious damage to eyes

Information on the chronic and reproductive toxicity studies on Cyromazine used in the determination of the human Oral Reference Dose was taken from the U.S. Environmental Protection Agency Integrated Risk management System (IRIS). Current environmental data and a full review of physico-chemical and toxicity data was taken from the U.S. National Institute of Health, Hazardous Substances Data Bank.

The information contained in this safety data sheet is given in good faith. It is accurate to the best of our knowledge and belief and represents the most up to date information. The information in this data sheet does not constitute or replace the user's own assessment of work place risk as required by other health and safety regulations.