1. Product Identification

Product Name: Myclobutanil Technical

CAS No: 88671-89-0

Chemical Family: Triazole

Chemical Name: 2-p-chlorophenyl-2-(1H-1,2,4-triazol-1-ylmethyl)hexanenitrile

Manufacturer: NACL Industries Limited
(Formerly known as Nagarjuna Agrichem Limited)
Plot No.12-A, ‘C’ Block, Lakshmi Towers, Nagarjuna Hills, Punjagutta, Hyderabad- 500082, Telangana, INDIA
Emergency Phone: 040 33605264

2. Composition / Information on ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS #</th>
<th>% w/w</th>
</tr>
</thead>
<tbody>
<tr>
<td>Myclobutanil Technical a.i.</td>
<td>88671-89-0</td>
<td>90.0</td>
</tr>
<tr>
<td>Associated impurities</td>
<td>-</td>
<td>10.0</td>
</tr>
</tbody>
</table>

3. Health Hazards Identification

Primary routes of exposure: Eye contact, skin contact, inhalation

Potential Health Effects

Inhalation: Prolonged inhalation is possibly harmful

Ingestion: Possibly harmful if swallowed.
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Skin Contact  Slight irritant to skin
Eye Contact   Causes substantial irritation

4. First Aid Measures

For eyes  Hold eye open and rinse slowly and rinse gently with fresh water for 15-20 minutes. If irritation persists, consult a medical Physician.

For Skin  Take off contaminated clothing. Rinse skin immediately with plenty of water and soap for 15-20 minutes.

For Inhalation  Move person to fresh air. Give artificial respiration if required and call ambulance.

For Ingestion  Give two glasses of water to drink or medical charcoal in plenty of water. Seek medical attention if a large column of concentrate was ingested or if irritation should persist. Never give anything by mouth to an unconscious person.

5. Fire Fighting Measures

Fire  Not expected to be a fire hazard
Explosion  None identified

Extinguishing media  Media suitable to extinguish the supporting or surrounding fire like carbon dioxide, dry chemical or water spray.
6. Accidental Release Measures

In Case of Spill or Leak
Control the spill at its source. Appropriate protective equipment to be used when handling a spill. Remove all contaminated clothing promptly and do not take it home for cleaning. Contain the spill to prevent it from spreading, contaminating soil, or entering sewage and drainage systems or any body of water. Clean the spills immediately. Cover entire spill with absorbing material and place into compatible disposal container. Scrub area with hard water detergent. Pick up wash liquid with additional absorbent and place into compatible disposal container. Once all material is cleaned up and placed in disposal containers, seal container and arrange for disposition.

7. Handling and Storage

Handling information
Store the material in a well-ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling. When handling and processing this material, local exhaust ventilation may be required to control dust and reduce exposure to vapors. To prevent dust explosions bonding and grounding for operations capable of generating static electricity.

8. Exposure Controls/Personal Protection

Inhalation
Use approved chemical cartridge respirator with organic vapor cartridges and Pre- filters or a supplied air respirator

Eye protection
Where eye contact is likely, use chemical splash goggles. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Where contact is likely wear chemical- resistant gloves, coverall, socks
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Skin Protection and chemical-resistant foot wear. For over head exposure, wear chemical-resistant head gear.

Ingestion Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Pale yellow crystalline powder</td>
</tr>
<tr>
<td>Boiling point</td>
<td>390.8°C / 97.6 kPa</td>
</tr>
<tr>
<td>Melting Point</td>
<td>70.9°C</td>
</tr>
<tr>
<td>Solubility</td>
<td>Soluble in common organic solvents</td>
</tr>
</tbody>
</table>

10. Stability and Reactivity

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stability</td>
<td>Stable in water (4-9pH) at 25°C</td>
</tr>
<tr>
<td>Hazardous decomposition products</td>
<td>There are no hazardous decomposition products for this material</td>
</tr>
<tr>
<td>Hazardous polymerization</td>
<td>Will not occur</td>
</tr>
</tbody>
</table>

11. Toxicological Information

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral LD₅₀</td>
<td>Rat: 2500.86 mg/kg body weight.</td>
</tr>
<tr>
<td>Dermal LD₅₀</td>
<td>Rabbits: &gt; 5000 mg/kg body weight</td>
</tr>
<tr>
<td>Inhalation</td>
<td>Rats: &gt; 5.1 mg/L</td>
</tr>
</tbody>
</table>
Dermal irritation  Rabbits: Non-irritant
Eye irritation  Rabbits: Non-irritant

12. Ecological Information

Bluegill fish  4.4 mg/l
Rainbow trout  2.0 mg/l
Daphnia LC₅₀ (48 h)  17 mg/l
Algae EC₅₀ (96 hr)  0.91 mg/l
Honey bee LD₅₀  Non toxic
Bobwhite Quail  > 5000 mg/kg
Mallard Ducks  > 5000 mg/kg

Environmental Fate

Persistence (Half-life) Soil  66 days.

In animals undergoes oxidation at the butyl group to a ketone and an alcohol with partial conjugation to a glucoside. Following administration, rapidly in the faeces and urine. In plants, metabolism is the same as in animals.
13. Disposal Considerations

**Waste Disposal Method**
Do not reuse product containers. Dispose off product containers, waste containers and residues according to local, state and federal health and environmental regulations.

14. Transport Information

**Rail/Road (RID/ADR)**
- Proper Shipper Name: Environmentally Hazardous substance, solid toxic, N.O.S.
- Class: 9
- UN No.: 3077
- Packing Group: III

**Sea (IMDG – Code)**
- Proper Shipper Name: Environmentally Hazardous substance, solid toxic, N.O.S.
- Class: 9
- UN No.: 3077
- Packing Group: III
- Marine pollutant: No

**Air (ICAO/IATA)**
- Proper Shipper Name: Environmentally Hazardous substance, solid toxic, NOS
- Class: 9
- UN No.: 3077
- Packing Group: III

15. Regulatory Information

**EU- Classification**
- Hazard Symbol
  - Xn: Harmful
  - N: Dangerous for the environment

**Special Risks (R-Phrases)**
- R22: Harmful if swallowed
- R36: Irritating to eyes
- R51/53: Toxic to aquatic organisms, may cause long-term adverse
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effects in the aquatic environment

Safety Advice (S-Phrases) 35 This material and its container must be disposed of in a safe way
36/37  Wear suitable protective clothing and gloves.
57  Use appropriate container to avoid environmental contamination.

International WHO
Toxicity Classification III Slightly hazardous

16. Other Information

The information contained herein is based on the present state of our knowledge as is intended to describe our products from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties.