



MATERIAL SAFETY DATA SHEET

NACL Industries Limited
(Formerly known as Nagarjuna Agrichem Limited)

TRICYCLAZOLE TECHNICAL

1. Product and Company Identification

Product Name : Tricyclazole Technical
CAS No. : 41814-78-2
Chemical family : Triazolobenzothiazole
Chemical name : 5-methyl-1,2,4-triazolo[3,4-b] [1,3]benzothiazole

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

Name	CAS No	% w/w
Tricyclazole Technical	[41814-78-2]	95.0%
2,2-Hydrazobis (4-methyl benzothiazole) and 2,2- Azobis (4-methyl benzothiazole)	-	1.0%
Undefined inactive material	-	3.0%
Moisture	-	1.0%

3. Health Hazards Identification

Eyes : Slight irritant
Skin : Non irritant
Ingestion : No specific health effects are known for ingestion of a small amount incidental to routine hand use.



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Inhalation : Animals exhibited nasal irritation, tremor and convulsions. Possible lung irritant with heavy inhalation

4. First Aid Measures

Eye contact : Immediately rinse eyes with a large amount of running water. Hold eyelids apart to rinse the entire surface of the eyes and lids.

Skin contact : Wash with plenty of soap and water, including hair and under fingernails. Do not apply any medicating agents except on the advice of a physician. Remove contaminated clothing and decontaminate prior to use.

Inhalation : Move the victim from contaminated area to fresh air. Apply artificial respiration if necessary, preferably by mechanical means. Avoid mouth to mouth resuscitation.

Ingestion : If swallowed, induce vomiting immediately as directed by physician. Never give anything by mouth to an unconscious person. Seek medical attention immediately

Medical instructions : Note to Physician: No specific antidote. supportive care. Treatment based on judgment of the physician in response to the reactions of the patient.

5. Fire Fighting Measures

Flash point : Not applicable

Method used : Not applicable

Fire and Explosion hazards : Toxic, irritating fumes may be formed under conditions.

Suitable extinguishing media : Use water, CO₂, dry chemical, foam

Protective Equipment for fire fight : Wear positive-pressure, self contained breathing apparatus

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6. Accidental Release Measures

In case of spill or leak : Wear chemical goggles or a full face shield, rubber gloves, rubber boots, long sleeved shirt, long pants, head covering and chemical cartridge respirator with organic vapor cartridges or use a self contained breathing apparatus. For small spills cover with an absorbent material such as per litter. Sweep up and place in an approved chemical container. Wash the spill area with water containing a strong detergent, absorb with pet litter or 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 water supplies.

7. Handling and Storage

Ventilation : Laboratory fume hood or local exhaust ventilation

Storage 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.

Special Instructions for storage : Store the product in closed original containers. Protect from light.

Storage Compatibility with other products : Store separately from feed, food and stimulants.

8. Exposure Controls/Personal Protection

Breathing Protection : Use respirator or laboratory fume hood. In production settings, airline supplied hood-type respirators are preferred to provide face, eye and respiratory protection. Shower and change clothing if skin contact occurs



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- Eye protection** : Goggles or appropriate respirator
- Skin Protection** : Impervious gloves and body covering to prevent skin covering
- Ingestion** : Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Always wash thoroughly after handling.

9. Physical and Chemical Properties

- Appearance** : Pale orange free-flowing coarse powder
- Physical state** : Solid
- Melting point** : $186 \pm 0.5^{\circ}\text{C}$
- Vapour Pressure** : 1.5×10^{-5} Pa (25°C)
- Corrosiveness** : Non-corrosive
- Bulk density** : 0.578 mg/L

10. Stability and Reactivity

- Stability** : Stable at normal temperatures.
- Hazardous Polymerization** : Will not occur.
- Incompatibilities** : None known.
- Hazardous decomposition products** : Not known



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11. Toxicological Information

Oral LD₅₀	: Rat: 50 -300 mg/kg body weight
Dermal LD₅₀	: Rat: > 2000 mg/kg body weight.
Inhalation (LC₅₀)	: Rat: 3.70 mg/L
Eye contact	: Mild irritant to Rabbit
Skin contact	: Non irritant to Rabbit
Other information	: Not carcinogenic, Not Mutagenic, Not Toxic for Reproduction.

12. Ecological Information

Fish(Acute Oral)

Rainbow trout (96 hours)	7.3 mg/l
Bluegill sunfish (96 hour)	LC50 16.0 mg/l

Mallard Ducks > 100 mg/kg body weight

Bobwhite quail >100 mg/kg body weight

Degradability

Plants The principal metabolite in plants is the hydroxymethyl analogue.

Soil / Environment Kd₄ (loamy sand, pH 6.5, 1.5% o.m.), 45 (loam, pH 5.7, 3.1% o.m.), 21 (clay loam, pH 7.4, 1.9% o.m.), 22 (silty clay loam, pH5.7, 4.1% o.m.).

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13. Disposal Considerations

Action to take for spills Contain and sweep up small spills. Contain large spills. Be aware of potential for dust explosion. When using electrical equipment. Wear protective equipment, including eye protection, to avoid exposure.

Waste Disposal Method Dispose of any cleanup materials and waste residue according to applicable federal, state and local regulations. Avoid contamination of water sources.

14. Transport Information

Rail/Road (RID/ADR)

Proper Shipper Name : PESTICIDE, SOLID, TOXIC, N.O.S
Class : 9.1
UN No. : 2588
Packing Group : III

Sea (IMDG – Code)

Proper Shipper Name : PESTICIDE, SOLID, TOXIC, N.O.S
Class : 9.1
UN No. : 2588
Packing Group : III

Air (ICAO/IATA)

Proper Shipper Name : PESTICIDE, SOLID, TOXIC, N.O.S
Class : 9.1
UN No. : 2588
Packing Group : III

15. Regulatory Information

EU- Classification

Hazard Symbol Xn Harmful

Special Risks (R-Phrases)

R21/22: Harmful in contact with skin and if swallowed
R40 : Limited evidence of a carcinogenic effect



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Safety Advice (S- Phrases)	2	Keep out of the reach of children.
	13	Keep away from food, drink and animal feeding stuffs
	22	Do not breathe dust
	36/37	Wear suitable protective clothing and gloves
International WHO Toxicity Classification	II	Highly Toxic

16. Other Information

The information contained in this MSDS is based on our knowledge as is intended to describe our products from the point of view of safety handling & use. It should not therefore be construed as guaranteeing specific properties.