



MATERIAL SAFETY DATA SHEET

NACL Industries Limited
(Formerly known as Nagarjuna Agrichem Limited)

PROFENOFOS TECHNICAL

1. Product and Company Identification

Product Name : Profenofos Technical

CAS No : 41198-08-7

Chemical Family : Organophosphate

Chemical Formula : O-4-bromo-2-chlorophenyl O-ethyl S-propyl phosphorothioate

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 #	% w/w
Profenofos Technical	41198-08-7	89.00 %
Other Associated impurities	-	11.00 %

3. Health Hazards Identification

Inhalation : Vapor or mist concentrations may be harmful if inhaled

Ingestion : May be fatal if swallowed

Skin Contact : Harmful if absorbed through the skin. Large exposures could be fatal

Eye Contact : Irritating, and may injure eye tissue if not removed promptly

Potential Physical Hazards : Combustible liquid and vapor



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4. First Aid Measures

- Eye contact** : Flush eyes with plenty of water for 15 minutes. Call a physician.
- Skin contact** : Wash with plenty of soap and water. Get medical attention.
- Inhalation** : Remove victim to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.
- Ingestion** : Do not induce vomiting. Call a physician immediately.
- Antidote** : Treat symptomatically based on judgment of the attending physician in response to reactions of the patient. Atropine only by injection is an antidote. Oximes such as 2-PAM/protopam may be therapeutic but should only be used in conjunction with atropine.

5. Fire Fighting Measures

- Fire and Explosion hazards** : Combustible liquid. Vapors can form explosive mixtures at temperatures at or above the flash point. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.
- Extinguishing media** : Fine-water spray, fog or foam.
- Firefighting Equipment** : Self-contained breathing apparatus with full-face piece. Wear full firefighting turn-out gear (Bunker gear).
- Hazardous combustion products** : Hydrogen chloride, Ethyl sulfide, Diethyl sulfide, Nitrogen oxides.

6. Accidental Release Measures

- In case of spill or leak** : It is important to take all steps necessary to:
- Avoid eye and skin contact.
 - Avoid contamination of waterways.
 - Shut off all possible sources of ignition. DO NOT smoke.



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7. Handling and Storage

- Handling information** : Keep out of reach of children. Very dangerous. Poisonous if absorbed by skin contact, inhaled or swallowed. Avoid contact with eyes and skin. Do not touch or rub eyes, nose or mouth with hand when handling granules. Wear protective clothing and equipment as above. Keep away from volatile chemicals and sources of ignition. If product on skin, immediately wash area with soap and water. After use and before eating, drinking or smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves, respirator and contaminated clothing with detergent and warm water.
- Storage** : KEEP OUT OF REACH OF CHILDREN: Store in the closed, original container in a dry, cool, well-ventilated area. Do not store for prolonged periods in direct sunlight. Store in a locked room or place away from children, animals, food, feedstuffs, seed and fertilisers. DO NOT store in or around the home. Store below 45°C. Avoid extreme heat. Keep dry – moisture can increase handling hazards.

8. Exposure Controls/Personal Protection

- Ingestion** : Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material.
- Inhalation** : Use approved chemical cartridge respirator with organic vapor cartridges and Pre- filters or a supplied air respirator
- Eye protection** : Safety glasses
- Skin contact** : Long-sleeved shirt and long pants. Shoes plus socks.



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9. Physical and Chemical Properties

Appearance	:	Yellowish to light brown
Physical state	:	Liquid
Odour	:	Garlic-like odour
Boiling point	:	100°C / 1.80 Pa
Density	:	1.42 ± 0.02 gm / cm ³
Solubility	:	28 mg/L in water (25°C)
Vapour Pressure	:	1.24 x 10 ⁻¹ mPa (25°C)

10. Stability and Reactivity

Chemical Stability	:	Normally stable.
Hazardous Polymerization	:	Will not occur
Incompatibilities	:	Strong alkalis, amines and oxidizers.
Instability Conditions	:	Avoid temperatures above 100°F (60°C).

11. Toxicological Information

Oral LD₅₀	:	Rat: 500 mg/kg body weight.
Dermal LD₅₀	:	Rat : >2000 mg/kg body weight
Inhalation (LC₅₀) (4 hours)	:	Rat: 3.44 mg/L
Skin sensitization	:	Non - Sensitizer



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Dermal irritation : Non Irritant

Eye irritation : Non - Irritant

12. Ecological Information

Birds : 70 -200 ppm (Bobwhite quail)

> 1000 ppm (Japanese quail)

Fish : 0.08 m/L (Rainbow trout)

Daphnia : 1.06 µg/L

Algae : 1.16 mg/L

Bees : 0.102 µg/bee

13. Disposal Considerations

Waste : Pesticide wastes are toxic and hazardous. Dispose of in accordance with applicable and local laws and regulations. Do not discharge or pour into soil, drainage system or bodies of water.

Disposal : Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or if allowed by state and local authorities, by burning (plastic containers). If burned, stay out of smoke.

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14. Transport Information

The data provided in this section is for information only. Please apply the appropriate regulations to properly classify your shipment for transportation.

Hazardous under the applicable DOT, ICAO/IATA, IMO, TDG and Mexican regulations.

UN Classification – classified as hazardous material for transport.

DOT (Department Of Transportation)

DOT Proper Shipping Name : Organo phosphorous pesticide, liquid, n. o. s. (Profenofos)
DOT Hazard class / I D No. : 6
DOT Label : 6.1
HAZCHEM No : 4W
UN No : 3018
Packing group : III

15. Regulatory Information

EU- Classification

Hazard Symbol

Xn Harmful
N Dangerous for the environment

International WHO

Toxicity Classification

II Slightly hazardous

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.