

1: IDENTIFICATION

Chemical Name	Phosphorodithioic acid; O,O-dimethyl S-(2-(methylamino)-2-oxoethyl) ester	
Synonyms	Dimethoate 30% EC	Trade Name AGROAR
Uses	Insecticide	Molecular Formula C ₅ H ₁₂ NO ₃ PS ₂
Manufacturer/Supplier	Ulink AgriTech Pvt. Ltd. Office Nos. 001 And 002, Ground Floor Wing "A" And Nos. 003 And 004 Ground Floor Wing "B", Nyati Tech Park, Wadgaon Sheri, Pune - 411014, Maharashtra	
Emergency Contact	9503095030	E-mail info@agrostar.in

2: COMPOSITION/INFORMATION OF INGREDIENTS

Chemical Name	CAS #	Percent or Content (w/w)
Dimethoate	60-51-5	30.0%
Inert Ingredients	-	Q.S

3: HAZARD IDENTIFICATION

Physical/ Chemical Hazard:	Toxicity Category II
Human Health Hazard:	H312 Harmful in contact with skin
Environmental Hazard:	H 400 Very toxic to aquatic life H 410 Toxic to aquatic life, may cause long term adverse effects in the aquatic environment.

4: FIRST AID MEASURES

General: Have the product container, label or Safety Data Sheet while seeking medical attention, a poison control center or physician, or going for treatment.

Inhalation: Move patients to fresh air. Keep the patients warm and at rest. If person is not breathing then give artificial respiration, preferably mouth-to-mouth if possible. Allow patients to rest. Immediately seek medical attention.

Ingestion: If swallowed and the exposed patient is conscious make him/her vomit quickly. Have him/her drink 1 or 2 glasses of water and induce vomiting by touching the back of throat with finger. Repeat until vomit is clear. Do not give anything by mouth to an unconscious person. Seek medical attention immediately and show this container or label.

Skin Contact: In case of contact with product, wash immediately skin area with plenty of water and soap. Speed in removing material from skin is extremely important. Remove and isolate contaminated clothing and shoes. Call medical attention.

Eye Contact: Rinse immediately with plenty of water for several minutes. After 5 minutes remove contact lenses if present and continue rinsing with plenty of water. Continue to rinse with eyelid wide open for at least 15-20 minutes. Seek medical attention if irritation develops.

Note to Physician: Dimethoate is a cholinesterase inhibitor affecting the central and peripheral nervous systems and producing cardiac and respiratory depression.

Antidote: Administer atropine sulphate in large doses. 2 to 4 mg intravenously or intramuscularly as soon as cyanosis is overcome. Repeat at 5 to 10 minute intervals until signs of atropinization appear. 2-PAM chloride is a pharmacological antidote and may be administered as an adjunct to, but not a substitute for atropine, which is a symptomatic and often lifesaving antidote. Do not give morphine or tranquilizers at first sign of pulmonary edema, the patient should be given supplemental oxygen and treated symptomatically. Continued absorption of dimethoate may occur and relapse may occur after initial improvement. Very close supervision of the patient is indicated for at least 48 hours.

5: FIRE FIGHTING MEASURES

Extinguishing Media: Water spray, alcohol-resistant foam, dry chemical powder or carbon dioxide

Specific Hazards: Hazardous vapours and toxic decomposition product may release in the event of fire/ explosion.

Hazardous Thermal (de)composition: Hazardous Decomposition or byproducts in a fire are dimethyl sulfide, sulfur dioxide, carbon monoxide, carbon dioxide, nitrogen oxides and phosphorus pentoxide.

Special Procedures: Evacuate area and fight fire upwind from a safe distance to avoid hazardous vapors and decomposition products. Foam or dry chemical fire extinguishing systems are preferred to prevent environmental damage from excessive water runoff. Minimize use of water to prevent environmental contamination. Avoid heavy hose streams. Dike area to prevent water runoff. Do not discharge extinguishing water into the drain or water bodies.

Protection of Fire Fighters: Do not breathe fumes, Wear a self contained breathing apparatus. Wear suitable protective gloves and eye/face protection.

6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: Ventilate spillage area. Avoid breathing fume. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from spill/ fumes.

Environmental Precaution: Do not allow runoff to enter drains and public waters. Notify the authorities if product enters.

Methods for Cleaning-up: For small spill, surface should be swept up by means of an inert absorptive material such as hydrated lime, sawdust, fuller's earth or other absorbent clays. For large spills, surface should be contained or diked and then absorbed with an inert absorptive material such as hydrated lime, sawdust, Fuller's earth or other absorbent clays. Collect the contaminated absorbent into proper containers and dispose of in accordance with the instruction provided in section 13. Clean the area using soda lye.

7: HANDLING & STORAGE

Handling: Do not smoke, drink, or eat during handling. Wash hands using liquid detergent. Wear protective clothing to avoid contact and/or inhalation with the product. Good personal hygiene procedures must be practiced.

Specific Conditions: Good local exhaust ventilation.

Storage: Store in dry, cool, well-ventilated area. Keep in original container and tightly closed when not in use. Keep product away from seeds, fertilizer, foods and animal feeds. Storage at temperatures not exceeding 25°C is recommended.

8:EXPOSURE CONTROL/PERSONAL PROTECTION

Engineering Measures: Ensure area is well-ventilated. If handled indoors, provide mechanical exhaust ventilation. Handle in accordance with good industrial hygiene and safety practice.

General Protection: Avoid contact with eyes and skin. While handling the product wear cotton overalls buttoned to the neck and wrist, elbow-length PVC gloves and face shield. After use and before eating, drinking and smoking, wash hands, arms and face thoroughly with soap and water. After each day's use, wash gloves and contaminated clothing.

Personal Protection: Follow all precautions and instructions on the label. In all other cases the following recommendations would apply.

Respiratory Protection: Always use NIOSH/MSHA approved respiratory protection equipment with a universal filter type including particle filter.

Skin Protection: Wear suitable protective clothing, including boots, gloves, lab coat, apron or cover all, as appropriate to avoid skin contact. Any clothing or other absorbent material which has been drenched or heavily contaminated must be discarded.

Hand Protection: Chemical-resistant gloves made of any waterproof material such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyvinyl chloride (PVC) or Viton.

Eye Protection: Safety goggles, chemical splash goggles or face shield for eyes protection should be used. Safety showers and eyewash should be easily available.

Others: Wash clothing before reusing.

9:PHYSICAL/CHEMICAL PROPERTIES

Appearance: Liquid **pH:** 3.7 (measured in water phase)

Physical State: Liquid

Colour: Light amber colour

Odour: Mercaptanic

Boiling Point [°C]: 145

Solubility in Water: Forms an emulsion

Specific Gravity [g/cc]: 1.00 – 1.05

10:STABILITY & REACTIVITY

Stability: Stable for longer period at temperature not exceeding 25°C. at higher temperature, product decomposed and lowers the quality of the product.

Hazardous Decomp. Products: Combustion or thermal decomposition will involve volatile, toxic, malodorous and inflammable compounds such as dimethyl sulfide and methyl mercaptan.

Possibility of Hazardous Reactions: The decomposition is dependent on time as well as temperature due to exothermic and autocatalytic reactions. The reactions involve rearrangements and polymerization.

Conditions to Avoid: Temperature above 25°C

Materials to Avoid: Strong alkalies, amines and strong oxidizing compounds

11: TOXICOLOGICAL INFORMATION

Rat oral LD50 [mg/kg] : 387

Rat inhalation LC50 [mg/l/4h] : >1.6

Skin irritation (rabbit): Slightly irritant

Dermal (rat) LD50 [mg/kg]: >2000

Skin Sensitization (Guinea Pig): Non-Sensitizer

Eye irritation (rabbit): Slightly irritant

12: ECOLOGICAL INFORMATION

Ecotoxicity

Rainbow trout LC50 (96 hrs) mg/L: 30.2

Daphnia magna EC50 (48 hrs) mg/L: 2.5

Bee LD50 (Oral, 24 h) [µg/bee]: 0.15

Persistence, Degradability and Mobility in Soil: The product is biodegradable. Degradation occurs both aerobically and anaerobically.

13: DISPOSAL CONSIDERATION

Waste-disposal procedures: Dispose of this product only according to the label. Do not contaminate drains, streams, rivers or waterways with the chemical or used container. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations.

Contaminated packaging: Empty remaining contents and the rinse containers thrice before disposal. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14: TRANSPORT INFORMATION

UN No. 3017 **Proper Shipping Name:** Organophosphorus Pesticide, Liquid, Toxic (Dimethoate)

Land Transport (ADR/RID): Class-6.1, Packing group-III

Sea Transport (IMO/IMDG): Class-6.1, Packing group-III, Marine Pollutant-Yes

Air Transport (IATA/ICAO): Class-6.1, Packing group-III, Environmental hazard mark-Yes

15: REGULATORY INFORMATION

Hazard Symbol: Xn Harmful

Risk Phrases: R21/22

Safety Phrases: S36/3

16: OTHER INFORMATION

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