ULINK AGRITECH PRIVATE LIMITED
MATERIAL SAFETY DATA SHEET : AGRONEB

1:IDENTIFICATION

Chemical Name	((2-((dithiocarboxy)amino)-1-methylethyl)carbamodithioato))(2-)-kS,kS')zinc		
Synonyms	Propineb 70% WP	**Trade Name**	**AGRONEB**
Uses	Fungicide	**Molecular Formula**	$(C_5H_8N_2S_4Zn)_n$
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)
Propineb	9016-72-2	70 % w/w
Other ingredients	-	Q.S.

3: HAZARD IDENTIFICATION

Classification of the Substance or Mixture; Skin sensitization Category 1; Specific target organ toxicity - repeated exposure Category 2; Acute toxicity Category 4; Chronic aquatic toxicity Category 2

Label Elements : **Pictogram**: GHS07, GHS08, GHS09 **Signal Word:** Warning

Hazard Statement: H332: Harmful if inhaled. H315: Causes skin irritation [Warning Skin corrosion/irritation]

H317: May cause an allergic skin reaction. H411: Toxic to aquatic life with long lasting effects

H373: May cause damage to organs (Thyroid, Peripheral nervous system) through prolonged or repeated exposure if inhaled or swallowed.

Precautionary statement(s): P260, P280, P301 + P312, P308 + P311, P391, P501

Other hazards May form explosible dust-air mixture if dispersed.

4:FIRST AID MEASURES

General: Consult a physician. Show this safety data sheet to the doctor in attendance.

Inhalation: Remove the victim to fresh air and keep him warm and quiet. Get a medical attention immediately.

Ingestion: Do NOT induce vomiting. Call a physician or poison control center immediately. Rinse mouth.

Skin Contact: Wash off thoroughly with plenty of soap and water, if available with polyethylene glycol 400, subsequently rinse with water. If symptoms persist, call a physician.

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

Note to physician: No specific Antidote. Treat symptomatically

Symptoms: Symptoms reinforced by alcohol (Antabuse effect).

Risks: This product is not a cholinesterase inhibitor.

Treatment: Treat symptomatically. In case of ingestion gastric lavage should be considered in cases of significant ingestions only within the first 2 hours. However, the application of activated charcoal and sodium sulphate is always advisable. Contraindication: atropine. There is no specific antidote. Follow-up measures: Strict abstinence from alcohol for 1 to 2 weeks, due to antabuse effect.

5:FIRE FIGHTING MEASURES

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

Hazardous Thermal (de)composition: In the event of fire the following may be released:, Hydrogen cyanide (hydrocyanic acid), Carbon monoxide (CO), Nitrogen oxides (NOx), Sulphur oxides

Special Procedures: Fire fighters should wear full protective clothing and self-contained breathing apparatus.Contain the spread of the fire-fighting media. Do not allow run-off from firefighting to enter drains or water courses.

Protection of Fire Fighters: Wear self-contained breathing apparatus for firefighting if necessary.

6:ACCIDENTAL RELEASE MEASURES

Personal Precautions: Avoid contact with spilled product or contaminated surfaces. Use personal protective equipment. Avoid dust formation

Environmental Precaution: Do not allow to get into surface water, drains and ground water.

Methods for Cleaning up: Use mechanical handling equipment. Clean contaminated floors and objects thoroughly, observing environmental regulations. Keep in suitable, closed containers for disposal. Avoid dust formation.

7:HANDLING & STORAGE

Handling: Use only in area provided with appropriate exhaust ventilation. Avoid contact with skin, eyes and clothing. Avoid dust formation. Use only in area provided with appropriate exhaust ventilation. Avoid contact with skin, eyes and clothing. Avoid dust formation. Avoid contact with skin, eyes and clothing. Keep working clothes separately. Wash hands before breaks and immediately after handling the product. Wash hands immediately after work, if necessary take a shower. Remove soiled clothing immediately and clean thoroughly before using again. Garments that cannot be cleaned must be destroyed (burnt).

Storage: Keep containers tightly closed in a dry, cool and well-ventilated place. Store in original container. Store in a place accessible by authorized persons only. Keep away from food, drink and animal feedingstuffs.

8:EXPOSURE CONTROL/PERSONAL PROTECTION

Control Parameters: Propineb - 0.2 mg/m3 (SK-SEN)

Engineering Measures: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday

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: Wear respirator with a particle filter mask (protection factor 20) conforming to European Norm EN149FFP3 or EN140P3 or equivalent. Respiratory protection should only be used to control residual risk of short duration activities, when all reasonably practicable steps have been taken to reduce exposure at source e.g. containment and/or local extract ventilation. Always follow respirator manufacturer's instructions regarding wearing and maintenance.

Hand Protection: Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Wash gloves when contaminated. Dispose of when contaminated inside, when perforated or when contamination on the outside cannot be removed. Wash hands frequently and always before eating, drinking, smoking or using the toilet.

Skin Protection: Wear standard coveralls and Category 3 Type 4 suit. If there is a risk of significant exposure, consider a higher protective type suit. Wear two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and should be professionally laundered frequently.

Eye Protection: Wear goggles (conforming to EN166, Field of Use = 5 or equivalent).

9:PHYSICAL/CHEMICAL PROPERTIES

Physical State: Powder **Colour:** Beige **Odour:** weak, characteristic **Ignition Temperature:** The product is not self-ignitable.

Water solubility: Dispersible **pH (1% aq. Sol.):** 6.0 - 8.0 **Flammability**: The product is not highly flammable.

10:STABILITY & REACTIVITY

Stability: Stable under recommended storage conditions.

Reactivity: Stable under normal conditions and non-self-heating.

Hazardous decomposition products: Hydrogen sulfide, Carbon disulphide

Incompatible Materials: Acids. Store only in the original container.

Conditions to avoid: Extremes of temperature and direct sunlight.

Possibility of hazardous reactions: No hazardous reactions when stored and handled according to prescribed instructions.

11: TOXICOLOGICAL INFORMATION

Acute oral toxicity: LD50 (Rat) > 2.000 mg/kg

Skin corrosion/irritation: No skin irritation (Rabbit)

Acute inhalation toxicity: Acute oral toxicity: LD50 (Rat) > 2.000 mg/kg

Serious eye damage/eye irritation: No eye irritation (Rabbit)

Respiratory or skin sensitization: Skin: Sensitizing (Guinea pig); OECD Test Guideline 406, Magnusson & Kligman test

Assessment STOT Specific target organ toxicity – single exposure
Propineb: Based on available data, the classification criteria are not met

Acute dermal toxicity: LD50 (Rat) > 2.000 mg/kg

Assessment STOT Specific target organ toxicity – repeated exposure
Propineb caused specific target organ toxicity in experimental animal studies in the following organ(s): Peripheral nervous system, Thyroid. Propineb caused Muscular weakness in animal studies. The observed effects do not appear to be relevant for humans.

Assessment mutagenicity: Propineb was not mutagenic or genotoxic based on the overall weight of evidence in a battery of in vitro and in vivo tests.

Assessment carcinogenicity: Propineb caused an increased incidence of tumours in mice in the following organ(s): Liver. The mechanism that triggers tumours in rodents and the type of tumours observed are not relevant to humans.

Assessment toxicity to reproduction: Propineb caused reproduction toxicity in a two-generation study in rats only at dose levels also toxic to the parent animals. The reproduction toxicity seen with Propineb is related to parental toxicity.

Assessment developmental toxicity: Propineb did not cause developmental toxicity in rabbits. Propineb caused developmental toxicity in rats only at dose levels toxic to the dams. The developmental effects seen with Propineb are related to maternal toxicity.

Aspiration hazard: Based on available data, the classification criteria are not met.

12: ECOLOGICAL INFORMATION

Toxicity: Toxicity to fish: LC50 (Oncorhynchus mykiss (rainbow trout)) 6,7 mg/l; Exposure time: 96 h

Toxicity to aquatic invertebrates: EC50 (Daphnia magna (Water flea)) 4,7 mg/l Exposure time: 48 h

Chronic toxicity to aquatic invertebrates: NOEC (Daphnia (water flea)): 0,0175 mg/l Exposure time: 21 d Test conducted with a similar formulation.

Toxicity to aquatic plants: ErC50 (Desmodesmus subspicatus (green algae)) 2,4 mg/l Exposure time: 96 h Test conducted with a similar formulation.

Biodegradability: Propineb: rapidly biodegradable **Koc**: 18 **Bioaccumulation:** Does not bioaccumulate **Mobility in soil:** Mobile in soils.

PBT and vPvB assessment: Propineb: This substance is not considered to be persistent, bioaccumulative and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulative (vPvB).

Additional ecological information: No other effects to be mentioned

13: DISPOSAL CONSIDERATION

Waste-disposal Procedures: Product - TIn accordance with current regulations and, if necessary, after consultation with the site operator and/or with the responsible authority, the product may be taken to a waste disposal site or incineration plant

Contaminated package: Not completely emptied packaging should be disposed of as hazardous waste.

14: TRANSPORT INFORMATION

UN No. 3077 **Proper Shipping Name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (PROPINEB MIXTURE)

Land Transport (ADR/RID): Class-9, Packing Group-III, Environmental hazards - Yes

Sea Transport (IMO) (IMDG): Class-9, Packing group-III, Marine Pollutant-Yes

Ait Transport (IATA): Class-9, Packing group-III, Environmental hazards -Yes

15: REGULATORY INFORMATION

WHO-classification: III (Slightly hazardous)

16: OTHER INFORMATION

DISCLAIMER OF LIABILITY The information in this MSDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.

---------- END ----------