

Product Safety Data Sheet

1. Chemical product and company identification

1.1. **Prepared Date:** Jan. 17. 2024

1.2. **Production Information:**

Trade Name: Deltacoper-850 W.P.

1.3. Information about manufacturer / supplier :

Saudi Delta Company for Chemical Industries

Riyadh – Saudi Arabia – 3rd Industrial City

Tel. 00966-11-2654533 Fax. 00966-11-2654532

P.O. Box 355809 Riyadh 11383 Saudi Arabia

2. Information on ingrediants

2.1. **Chemical properties** (Component Substances).

The product is a mixture of active ingredient, wetting agent, Dispersing agent, and carrier.

Copper oxychloride : 85% w/w (active ingredient), Fungicide

Anionic / Nonionic surfactants 7% (wetting & Dispersing agents)

Carrier up to 100% w/w.

2.1.1. **Copper Oxychloride:**

IUPAC name : dicopper chloride trihydroxide (approximate composition); copper oxychloride

Chemical Abstracts name: copper chloride oxide hydrate

CAS No. : [1332-40-7]; ([1332-65-6], defined as copper chloride hydroxide)

Mol. wt. : 427.1

M.f. : $\text{Cl}_2\text{Cu}_4\text{H}_6\text{O}_6$

Form : Green to bluish-green powder.

M.p. : decomp. 300 °C V.p. Negligible at 20 °C

Solubility: In water <10-5 mg/l (pH 7, 20 °C). Insoluble in organic solvents. Soluble in dilute acids, forming Cu(II) salts; soluble in ammonium hydroxide, forming a complex ion.

Stability: Very stable in neutral media. Decomposes on heating in alkaline media with the formation of copper oxides. Decomposes on heating, with the formation of copper oxides, and loss of hydrogen chloride.

Surfactants:

Anionic Surfactants (lignosulfonate) 50-100%

Anionic surfactants 10-25%

Form: Powder **pH:** 8 (5% H₂O)

M.P.: > 100°C **F.P:** Not applicable

Colour: brown **V.P:** < 1mb (20°C).

Water Solubility: Completely soluble.

Flammability (Solid, gas): No date available

3. Hazard Identification

This product is classified as hazardous
This product is harmful if inhaled and if swallowed.

4. First aid Measures

4.1. Ingestion: Give two glasses of water or milk, don't give alcohol, and call a physician immediately

4.2. Eye Contact: Immediately, Flush with copious amounts of water for at least 15 minute while holding eyelids apart. Washing within one minute is essential to achieve maximum effectiveness. Get immediate medical attention after flushing.

4.3. Skin Contact: Wash affected area thoroughly with soap and water. Remove contaminated clothing and launder before reuse. Discard shoes and leather goods. If irritation should develop, get medical attention.

4.4. Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Consult a physician.

4.5. Advice to Doctor: Treat symptomatically. Note the nature of this product.

5. Fire Fighting Measures

5.1. Fire and Explosion Hazards: There is no risk of an explosion from this product under normal circumstances if it is involved in a fire.

Fire decomposition products from this product may be toxic if inhaled. Take appropriate protective measures.

5.2. Extinguishing Media: Not Combustible. Use extinguishing media suited to burning materials.

5.3. Fire Fighting: If a significant quantity of this product is involved in a fire, call the fire brigade.

6. Accidental Release Measures

Accidental release: Minor spills do not normally need any special cleanup measures. In the event of a major spill, prevent spillage from entering drains or water courses. As a minimum, wear overalls, goggles and gloves. Suitable materials for protective clothing include rubber, PVC. Eye/face protective equipment should comprise as minimum, protective glasses and, preferably, goggles. If there is a significant chance that vapours or mists are likely to build up in the cleanup area, we recommend that you use a respirator. Stop leak if safe to do so, and contain spill. Sweep up and shovel or collect recoverable product into labelled containers for recycling or salvage, and dispose of promptly. Recycle containers wherever possible after careful cleaning. After spills, wash area, preventing runoff from entering drains. If a significant quantity of material enters drains, advise emergency services. This material may be suitable for approved landfill. Ensure legality of disposal by consulting regulations prior to disposal. Full details regarding disposal of used

containers, spillage and unused material may be found on the label. If there is any conflict between this MSDS and the label, instructions on the label prevail. Dispose of only in accord with all regulations. Advise laundry of nature of contamination when sending contaminated clothing to laundry.

7. Handling and Storage

7.1. Handling:

Keep exposure to this product to a minimum, and minimize the quantities kept in work areas. Check Section personal protective measures of this MSDS for details of personal protective measures, and make sure that those measures are followed.

The measures detailed below under "Storage" should be followed during handling in order to minimize risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section Stability and Reactivity.

7.2. Storage: Store in the closed original container in a dry, cool, wellventilated area out of direct sunlight. Make sure that the product does not come into contact with substances listed under "Materials to avoid" in Section Stability and Reactivity. Check packaging - there may be further storage instructions on the label.

8. Exposure controls, Personal Protections.

8.1. Personal protection: Don't breath dusts, after treatment, wash and change clothes prior anything else like eating, drinking, or smoking.

8.2. Respiratory protection: Wear a suitable anti dust mask.

8.3. Skin protection: Wear suitable protective clothing mask.

8.4. Eye protection: Wear. Eye / face protection.

8.5. Ingestion: Don't eat, drink or smoke during application.

8.6. Industrial hygiene: Avoid splashes (Suitable protective clothing ...etc.)

9. Physical and chemical properties

9.1. Colour: Blue- green.

9.2. Physical state: Powder.

9.3. Odour: Slight odor.

9.4. PH: 6.5-7.5 (1% suspension) .

9.5. Density: 0.42- 0.52 g/ml.

9.6. Flammability: flammable

9.7. Explosivity: Fine dust in air may form an explosive mixture if source of ignition is 9.8. present.

9.8. Wettability: Less than 1 min. Suspensibility: 80 % min. (30 min).

10. Stability and Reactivity

10.1. Reactivity: This product is unlikely to react or decompose under normal storage conditions.

10.2. Store Conditions: Store in the closed original container in a dry, cool, well-ventilated area out of direct sunlight.

10.3. Incompatibilities: Avoid acids Fire Decomposition: Only small quantities of decomposition products are expected from this product at temperatures normally achieved in a fire - Chlorides, copper oxide

10.4. Polymerisation: This product is unlikely to undergo polymerisation processes.

11. Toxicological Information

11.1. WHO Classification: active ingredient and formulated product WHO Class Active Ingredient Slightly hazardous, class-II Formulation Slightly hazardous class-III Oral LD50 for rat 700-800 mg/kg (tech.) Dermal LD50 for rat > 2000 mg/kg Inhalation LC50 for rat > 30 mg/l (4h)

11.2. Skin irritant: May cause irritant

11.3. Eye irritant: Mild cause irritant

11.4. Skin sensitization: Rarely sensitization

11.5. Copper oxychloride: Not a carcinogen, Non-Neurotoxin, Non Teratogenic, Not mutagenic

12. Ecological Data

12.1. Copper oxychloride: Non toxic to bees Toxic to aquatic organism Non toxic to bird Moderately toxic to earth worm.

12.2. Environmental fate: Copper Oxychloride is insoluble in water and organic solvents. It is strongly absorbed by soils, making it virtually immobile and does not leach into groundwater. In animals it is excreted in the faeces

13. Disposal Considerations

13.1. Disposal: Residue and rinse water must be poured into a 30cm hole, 50m away from any water and covered with earth.

After use, empty and clean apparatus on site, prevent the product entering natural water, ditches or sewers.

13.2. Disposal of packaging: After use, empty packing must be punched and destroyed or incinerated.

14. Transport Information

IMO Class : 9

UN PROPER SHIPPING NAME :

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID , N.O.S

GGVE/GGVS : 9

RID/ADR : 9

IMDG-Code : 9

PACKING GROUP : III

IATA/ICAO : 9

15. Regulatory Information

15.1.Risk Phrases: R22 Harmful by inhalation & if swallowed

15.2.Safety Phrases: S22 Do not breathe dust

15.3. SUSD P Classification: S6

15.4. ADG Classification: None allocated.

Not a Dangerous Good. UN Number: None allocated

16. Other Information

6.1.1. Recommended uses and restrictions: The producer warrants the quality of this product in the original closed packaging, and of its conformity with authority agreement during 2 years.