

Material Safety Data Sheet

בורדוזול – Bordozol

Revised: 07.07.10

1. IDENTIFICATION OF SUBSTANCE AND COMPANY

Common name: Bordozol (80% BORDEAUX MIXTURE, eq. to 20% Cu)

Use: Fungicide

Formulation Type: WP

Manufacturer: Tapazol Chemical works ltd.

Address: HaSolela 1, West ind. Zone, Beit Shemesh, 99052.

Tel: 972-2-992-6040 **Fax:** 972-2-9926050 **e-mail:** info@tapazol.co.il

2. COMPOSITION/INFORMATION ON INGREDIENTS

| Name | CAS no. | Quantity (%) |
|-------------------|-----------|-----------------------|
| Bordeaux mixture | 8011-63-0 | 80 (eq. to 20% Cu) |
| Inert ingredients | N/A | 20 |

AI molecular formula: $\text{Cu}_4(\text{OH})_6\text{SO}_4 \cdot \text{CaSO}_4 \cdot n\text{H}_2\text{O}$ (n = 0 - 6)

3. HAZARDS IDENTIFICATION

May cause skin and eye irritation. May cause skin sensitization.

Toxic to fish and aquatic organisms.

4. FIRST AID MEASURES

Eyes: Flush eyes with large amounts of water for at least 15 minutes. If irritation persists, get medical attention.

Skin: Flush with large amounts of water; use soap or detergent if available. Remove grossly contaminated clothing, including shoes, and launder before reuse.

Ingestion: If swallowed, DO NOT induce vomiting. Keep at rest and get prompt medical attention.

Inhalation: Wear proper respiratory protection before rescue. Immediately remove the affected victim from exposure to an area of fresh air. Administer artificial respiration if breathing has stopped. Keep at rest and call for prompt medical attention

Note to physician: No specific antidote, treat symptomatically.

5. FIRE-FIGHTING MEASURES

Flash point: N/A.

Flammable properties: Product is not flammable. The product decomposes if heated at high temperatures.

Extinguishing media: Dry chemical, CO₂.

Protective equipment: Fire-fighters should wear proper protective equipment and self-contained (positive pressure if available) breathing apparatus with full face piece.

Hazardous products of combustion may include: toxic gases such as SO_x, CO_x.

6. ACCIDENTAL RELEASE MEASURES

Personal protection: Wear suitable personal protective equipment as prescribed in section 8 – "EXPOSURE CONTROL/PERSONAL PROTECTION".

Environmental Protection: Avoid product from entering watercourses and sewers. Should this happen, immediately advise local competent authority.

Procedure: Using a shovel, place into another clean and dry container. Close and remove from the area. Wash area with water. If necessary, arrange disposal in consultation with local Waste Disposal Authority. For spills in public area, keep public away and advise local authorities.

7. HANDLING AND STORAGE

Storage: Keep in a tightly closed container, stored in a cool, dry, ventilated area away from the reach of children and unauthorized people.

Protect against physical damage. Separate from incompatibilities.

Handling: Use in well ventilated area, do not breath dust. Do not eat, drink or smoke while working with the product.

Wear suitable personal protective equipment as prescribed in section 8 – "EXPOSURE CONTROL/PERSONAL PROTECTION".

After handling with the product, wash with water and soap and change clothes. Do not re-use clothes that haven't been laundered. Launder working clothes in separate from household laundry.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Control Parameters:

| <u>Dangerous Ingredient</u> | <u>TLV-TWA</u> |
|-----------------------------|---------------------|
| 20% Copper | 1 mg/m ³ |

Engineering controls: The use of local exhaust ventilation is recommended to control process emission near the source.

Eye/ Face protection: Suitable goggles.

Skin/Body protection: Wear long pants and long sleeved shirt, close shoes and socks.

Respiratory protection: Appropriate anti-dust mask.

Hand protection: Suitable gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Blue powder.

Odor: Odorless.

pH: 6-8.5 (1% suspension)

Melting point: The product decomposes if heated at high temperatures.

Water solubility: Not soluble, produce stable suspension.

Other solvent solubility: Soluble in concentrated acid and in ammonia solution (cuprammonium complex formation).

Bulk Density: 600 – 800 g/l (CIPAC Method MT 33).

10. STABILITY AND REACTIVITY

Chemical stability: Stable under ordinary conditions of use and storage.

Conditions to avoid: Heat (the product decomposes at high temperature), flame, ignition sources, dusting and incompatibles such as strong alkalis or acids.

Hazardous decomposition products: Oxides of sulphur.

Hazardous polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute toxicity:

Oral: LD50 for rat: >4000 mg/kg. Ingestion may cause nausea, vomit and gastric-intestinal pain.

Dermal: LD50 for rat: >2000 mg/kg.

Inhalation: LC50 for rat: 1-5 mg/l.

Dust may cause problems to lungs, do not breath dust.

Skin irritation: Slight irritant.

Eye irritation: Irritant.

Skin sensitization: Slight sensitizer.

Chronic toxicity:

The product is not carcinogenic, mutagenic and does not have reproductive effects.

12. ECOLOGICAL INFORMATION

For AI Bordeaux mixture:

Fish: Toxic to fish and aquatic organisms. Avoid Copper from reaching water courses.

Bees: Not toxic to bees.

Persistence and degradability: Copper is not degradable.

Bio-accumulation potential: Copper may be bio-accumulated.

13. DISPOSAL CONSIDERATIONS

Disposal of Material: The Copper present in the product cannot be eliminated since Copper is an element present in nature. Contact local competent Authority. Avoid Copper from reaching sewage.

Disposal of Packaging: Packaging is not for recycling.

14. TRANSPORT INFORMATION

UN no.: 3077 (Environmentally hazardous substance, solid, n.o.s)

Class: 9

Packaging group: III

15. REGULATORY INFORMATION

Specific provision: Product can be used in Organic farming as per EU Regulation No. 2092/91 dated 26.06.1991

R phrases:

R36: Irritating to eyes and skin

R51/53: Toxic to aquatic organisms, May cause long-term adverse effects in the aquatic environment

16. OTHER INFORMATION

Disclaimer: The information provided by TAPAZOL CHEMICAL WORKS Ltd. In the above document is given in good faith and to the best of our knowledge. However, no warranty is expressed or implied.