

Product Safety Data Sheet

1. Chemical product and company identification

1.1. Prepared Date : JAN . 2025

1.2. Product information : -

Trade name : Tebuzole-250 EC

1.3. Information about manufacturer / supplier :

Saudi Delta Company for Chemical Industries

Riadh – Saudi Arabia – 3rd Industrial City

Tel. 00966-1-2654533 Fax. 00966-1-2654532

P.O. Box 355809 Riyadh 11383 Saudi Arabia

2. Information on ingredient's

2.1. Chemical properties (Component substances)

The product is a mixture of one active ingredient, emulsifiers, and solvent.

- Tebuconazole 25% w/v (a.i.) (Used as a seed dressing)
- Emulsifiers 8% w/v (Anionic / non- ionic type)
- Aromatic Solvent Up to 100% v

2.1.1. Tebuconazole :

- **Chemical Name** : (RS)-1-p-chlorophenyl -4,4-dimethyl-3-(1H-1,2,4-triazol-1-ylmethyl) pentane-3-ol (IUPAC)
- **CAS No.** : 107534-96-3
- **Mol. Formula** : C₁₆H₂₂Cl N₃
- **Mol. wt .** : 307.8
- **Physical Form** : Colorless to light brown powder
- **Melting Point** : 105 °C (tech.)
- **Vapour Pressure** : 0.0013 mPa (20 C) °
- **Specific Gravity** : 1.25 at (26 °C)
- **Kow Log P** : 3.7 (20 °C)

- Solubility

In water 36 mg/l (pH 5-9, 20 °C). In dichloromethane >200, acetone>200, acetonitrile 89, DMF, DMSO>200, n-hexane 0.08, isopropanol 99, n-octane 96 toluene 57 (all in g/l, 20 °C).

- **Stability** : Stable to elevated temp. and to photolysis and Hydrolysis in pure water, under sterile conditions hydrolysis DT₅₀ (20 °C) 1 y (pH 4-9, 22 °C), 22.1 hr

2.2. Emulsifiers :

A combined anionic/nonionic emulsifiers specially intended for formulation of pesticide.

Composition	:	15-30% calcium dodecyl benzenesulfonate. 10-20% n-Butanol. 30-60% polyalkyleneoxidederivative.
Appearance	:	Clear yellow-brown liquid and cloudy yellow liquid.
Density	:	0.99-1.01 gm/ml (20°C).
Flash point	:	N/A
Pour point	:	2-3 °C.
Viscosity	:	1150 mPa s.
Solubility	:	Soluble in Isopropanol, Octanol, water, and xylene in soluble in kerosene and mineral oil.

2.1.3. Aromatic Solvent (Xylene):

CAS No.	:	68920-06-9	SHA: 086803
Composition	:	Dimethylbenzene (ortho, meta, and para isomers).	
Properties	:	Volatile. Petroleum distillate (75-100% aromatic hydrocarbon), B.P.: 175-300 °F.	

3. Hazard Identification

3.1. Dangerous Substances : Contains Tebuconazole and aromatic substance (Solvent).

3.2. Important Hazardous : Tebuconazole is harmful or fatal if swallowed. Causes eye or

skin irritation. Skin contact may cause allergic. Don't get in eyes, on skin or in clothing. Avoid breathing vapors or spray mist.

3.3. Signs and Symptoms of over-exposure : Primary entrance tracts into the organism: Dermic, inhalation. Tebuconazole is classified in category C/D of EPA-USA (low possibility of carcinogenic potential on human beings), based on studies carried out on female mice, with doses above tolerance. It can cause nausea, vomiting, abdominal pain, diarrhea, depression, fatigue, dyspnea, arterial hypertension. There is not any known case of severe poisoning on human beings.

4. First aid Measures

If Swallowed : Do not induce vomiting. Contains xylene-range aromatic solvent. Call a physician immediately. See “Note to Physician“.

If In Eyes : Flush with plenty of water while holding eyelids open. Call a physician immediately

If On Skin : Wash hands with soap and water each time before eating , drinking , or smoking. At the end of the working day, bathe entire body with soap and plenty of water.

If Inhaled : Remove to fresh air, Support respiration and contact a physician if necessary.

5. Fire Fighting Measures

5.1. Extinguishing media:

- 5.1.1. Suitable: Carbon dioxide, foam, water fog, dry chemical and halogenated agents.
- 5.1.2. Not to be used: Don't use water except in case of important fire.
- 5.1.3. Protection against fire: Keep away from sources of ignition.

6. Accidental Release Measures

6.1. Personal precautionary measures:

- 6.1.1. **Respiratory protection:** In case of insufficient ventilation wear pesticide respirator jointly approved by the local authorities.
- 6.1.2. **Protective gloves:** wear heavy duty, natural rubber gloves, or chemical resistant gloves such as Barrier laminate or Nitrile Rubber or. Neoprene rubber or viton.
- 6.1.3. **Eye protection:** wear safety goggles.

6.1.4. **Other protection:** wear water-proff pants, coat, hat, rubber boots or rubber overshoes.

6.2. **Environmental Precaution:** Stop any eventual leakage.

6.3. **After spillage / leakage on soil:** Liquid spillage should be dammed off and pumped into

containers; soak up remainder with absorbent material and dispose of in accordance with local regulations.

7. Handling and Storage

7.1. Don't apply when weather conditions favor drift from treated area. Don't contaminate

lakes, streams, ponds. When using don't eat, drink, or smoke. Don't breath spray.

Wash hands and exposed skin before meals and after work.

Wash out container thoroughly and dispose of safety. Store in original container in a cool, dry, well-ventilated, secure area out of reach of children and animals store in original container, tightly closed in a safe place.

8. Exposure controls , Personal Protections .

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

8.2. **Respiratory Protection :** Wear a suitable mask.

8.3. **Skin Protection :** Wear a suitable protective clothing mask.

8.4. **Eye Protection :** Wear eye, face protection.

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

9. Physical and chemical properties

9.1. **Shape** : Liquid

9.2. **Colour** : Light Yellow liquid

9.3. **Odour** : Aromatic odour

9.4. **Product Use** : Agricultural uses

9.5. **Melting point** (Fungicide) : Not applicable :

9.6. **Density (g/ml) (25°)** 0.9719

9.7. **Viscosity (CPS) 25 °C** : 23

9.8. **Solubility in water** : Forms white emulsion

9.9. **Flash point °C** : 28

9.10. **pH (1% aq. emul.) w/v** : 4-8

9.11. **Flammability** Flammable

10. Stability and Reactivity

10.1. Hazardous Decomposition : Tebuconazole stable. Hydrolysis half-life in aqueous buffer at pH7 is about 6 hrs, at 20 °C; Hydrolysis is more rapid in acid than in alkaline solution. On prolonged storage under moist conditions, slow decomposition occurs. UV lights appears to have little effect on stability.

10.2. Environmental Fate :

Animals : Rapid breakdown leading to excretion as a conjugate of 4-amino-3-methylbenzoic acid and to a lesser extent to N-(2,4-dimethylphenyl)-N'-methylformamidine.

Plants : Rapid degraded, mainly to N-(2,4-dimethylphenyl)-N'-methylformamidine and to a smaller extent to 2,4-dimethyl-formanilide .

Soil and Water : Rapidly broken down in soil under aerobic conditions (J. Appl. Bacteriol. 1977, 42, 187; ibid. 1978, 44, 383); DT₅₀ in soil < 1 d. Degradation occurs more rapidly in acid than in neutral or alkaline soils. Very \

11. Toxicological Information

- 11.1. Acute oral LD50 for rats 4000 mg/kg , mice 3000 mg/kg.
- 11.2. Acute percutaneous LD50 for rats 5000 mg/kg , rabbits. Mild irritant to eyes
- 11.3. Inhalation LC50 (4 hr) for rats 0.37 mg/L air (aerosol).
- 11.4. NOEL (Tech.) : In 2 years for rats 300 dogs 100, mice 20 mg/kg diet.
- 11.5. ADI (JMPR) 0.03 mg/kg b.w (1994)
- 11.6. Toxicity class : WHO III; EPA III

12. Ecological Data

12.1. Environmental Hazards:

This product is toxic to fish. For terrestrial uses, do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Drift and runoff from treated areas may be hazardous to fish in adjacent sites. Do not contaminate water by cleaning of equipment or disposal of equipment wash waters. Apply this pesticide only as specified on this label. Do not apply this product through any type of irrigation system

12.2. Birds : LD50 for male Jpanese quail 4440, female Japanese quail 2910, bobwhite quail 1990 mg/kg.

12.3. Fish: LC50 (96 hr) for rainbow trout 4.4, bluegill sunfish 5.7, sheepshead mg/L. Due to rapid hydrolysis, it is unlikely that this toxicity will be expressed in natural aquatic systems.

Bees: LD50 (48h, oral) 83 µg/bee contact >200µg/bee.

12.5. Daphnia: LC50 (48 hr) 2.79 mg /L . Due to rapid hydrolysis, it is unlikely that this

toxicity will be expressed in natural aquatic systems.

12.6. Other aquatic spp.: EC50 for *Selenastrum capricornutum* >12 mg/L.

12.7. Other beneficial spp.: LC50 (14 d) for earthworms >1000 mg tech. /Kg.

12.8. Worms : Acute LC50 (14days) 1381 mg/kg dry soil

13. Disposal Considerations

13.1. Pesticides Disposal

Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or restate is a violation of Federal law. If these wastes cannot be disposed of use according to label instructions contact.

Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

13.2. Container disposal

13.2.1. Metal containers: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by local authorities. Do not cut or weld metal containers.

13.2.2. Plastic containers: 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 authorities, by burning. If burned, stay out of smoke.

13.2.3. Returnable / Refillable Sealed Containers: Don't rinse container. Do not empty remaining formulated product. Do not break seals. Return intact to point of purchase.

14. Transport Information

GGVE/GGVS	: 6.1/III	RID/ADR:	6.1	
IMDG-Code	: 6.1/ III	EMS:	----	MFAG : ----
IATA/ICAO	: 6.1 III	UN:	----	PAX: ---- CAO: ----

15. Regulatory Information

15.1. **Toxicity Classifications :** Moderately Hazardous

Warning Symbol : ☒ ☐

15.2. **R-Phrase :**

R-22 : Harmful if swallowed

R-10 : Flammable

R-20/21 : Harmful by inhalation and in contact with skin .

R-38 : Irritating to skin .

15.3 **S-Phrase :**

S-22 : Don't breath dust.

S-26 : In case of contact with eyes, rinse immediately with plenty of water and seek medical.

S-25 : Avoid contact with eyes.

16. Other Information

16.1. Note to Physician:

If swallowed, use gastric labile. Avoid aspiration.

16.2. Antidote:

There is no any specific antidote. Symptomatic and support treatment.



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