

MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product Name : Tembotrione Technical
Chemical Name : 2-[2-chloro-4-methylsulfonyl-3-(2,2,2-trifluoroethoxymethyl)benzoyl]cyclohexane-1,3-dione
Type : Herbicide
Molecular formula : C₁₇H₁₆ClF₃O₆S
Manufacturer : Agrow Allied Ventures Pvt. Ltd.

2. Composition / Information on ingredients

Chemical Name	CAS#	Percent or content
Tembotrione a.i.	335104-84-2	98.0% w/w
Other ingredients	-	2.0% w/w
Total	-	100.0% w/w

3. Health Hazards Identification



Signal Word: Warning

Hazard statements

H302 Harmful if swallowed.

H361d Suspected of damaging the unborn child.

H373 May cause damage to organs (Eyes, Kidney, Liver) through prolonged or repeated exposure.

H410 Very toxic to aquatic life with long lasting effects.

EUH208 Contains Tembotrione, Isoxadifen-ethyl, 1,2-benzisothiazolin-3-one. May produce an allergic reaction.

EUH401 To avoid risks to human health and the environment, comply with the instructions for use.

Precautionary statements

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

P308 + P311 IF exposed or concerned: Call a POISON CENTER/ doctor/ physician.

P501 Dispose of contents/container in accordance with local regulation.

4. First Aid Measures

Ingestion	Call a physician. Induce vomiting immediately. Do not give anything by mouth to an unconscious person.
Skin	Wash off skin immediately with plenty of soap and water. Take off all contaminated clothing and shoes immediately. Call a physician.
Inhalation	Move the victim to fresh air if symptoms of cholinesterase inhibition appears. Call a physician.
Eye irritation	Rinse immediately with plenty of water for at least 15 minutes. Seek medical attention if irritation persists.
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

5. Fire Fighting Measures

Extinguishing Media: Water spray, foam, dry chemical, CO₂.

Fire Fighting Instructions

If area is exposed to fire and conditions permit, let fire burn itself out. Burning chemicals may produce by-products more toxic than the original material. If product is on fire, wear self-contained breathing apparatus and full protective equipment. Use water spray. Control runoff.

6. Accidental Release Measures

Safeguards (Personnel)

Note: review fire fighting measures and handling (personnel) sections before proceeding with clean-up.

Use appropriate personal protective equipment during clean-up.

Evacuate personnel, thoroughly ventilate area, use self-contained breathing apparatus.

Initial Containment

Prevent material from entering sewers, waterways, or low areas. Follow applicable Federal, State/Provincial and Local laws/regulations.

Spill Clean Up

Soak up with sawdust, sand, oil dry or other absorbent material. Dispose of in an approved container. Do not allow to contaminate ground or surface water systems. If liquid has been spilt in large quantities clean up promptly by scoop or vacuum.

7. Handling and Storage

Safe handling Wear personal protective equipment. Handle as an organic dust. Avoid contact with eyes, skin and clothing. Avoid breathing dust. Use only in a well ventilated areas, or chemical fume hood. Wash thoroughly after handling. Keep out of reach of children.

Storage Keep containers tightly closed. Store in a cool dry place. Protect from direct contact with water or excessive moisture, acids or bases. Store in original containers.

8. Exposure Controls/Personal Protection

Engineering Controls	Use general and/or local exhaust ventilation to control dusts.
Respiratory Protection	Appropriate respirator for dust
Eye/Face	Use safety glasses. If there is a potential to exposure for dust, wear safety goggles.
Clothing	Working clothes with long sleeves and long pants.
Footwear	Working shoes with socks

9. Physical and Chemical Properties

Appearance	White to light yellow powder
Odour	Characteristic
Moisture	0.5% max.
Acidity (As H ₂ SO ₄)	0.1% max.

10. Stability and Reactivity

Stability	Stable under normal temperature.
Hazardous Polymerization	Not known to occur.
Conditions to avoid	None
Hazardous decomposition	Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NO _x), Hydrogen chloride gas, Hydrogen bromide gas

11. Toxicological Information

Acute Oral Toxicity	LD ₅₀ (rats) >2500 mg/kg
Acute Dermal Toxicity	LD ₅₀ (Rats) >2000 mg/kg
Acute Inhalation	LC ₅₀ (rats): >4.58 mg/L air
Eye/Skin Irritation	Rabbit: Non irritant to skin, and Slight irritant to eyes
Skin sensitization	Guinea pig: Sensitizer

12. Ecological Information

Acute oral LD50 (Bobwhite quail) >2250 mg/kg
LC50 (Oncorhynchus mykiss (rainbow trout)) >100 mg/l
Honey Bee LD50 (oral) >93 µg/bee and (contact) >100 µg/bee
Worms LC50 1000 mg/kg soil

13. Disposal Considerations Disposal

1. Mix the material with saw dust or combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.
2. Do not discharge into waterway or sewer systems.
3. Contaminated empty containers must be disposed of as chemical waste.
4. Obey all local regulations and refer labels concerning environment, health and safety protection.

14. Transport Information

Proper Shipping Name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
UN No.	:	3017
Toxicity Class	:	9
Packing Group	:	III
Marine Pollutant	:	YES
EMS	:	F-A, S-A

15. Regulatory Information

WHO Classification: II

H318 Causes serious eye damage.

H330 Fatal if inhaled.

H361d Suspected of damaging the unborn child.

H373 May cause damage to organs through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H411 Toxic to aquatic life with long lasting effects

16. Other Information

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall we be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if we have been advised of the possibility of such damages.

Prepared By: AAVPL, Safety Division