



EAST COAST ORGANICS PRIVATE LIMITED

Regd. Office & Factory : 237/2, Vellivoyal Chavadi,
Chennai – 600 103. India.



MATERIAL SAFETY DATA SHEET

TETRA ETHYL THIURAM DISULFIDE

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: DISULFIRAM IP
Company Identification: 237/2, Vellivoyal Chavadi
Chennai – 600 103. Tamilnadu
Office Telephone No: 044 64606747

2. COMPOSITION / INFORMATION OF INGREDIENTS

Chemical description: Tetra Ethyl Thiuram Disulfide

CHEMICAL NAME CAS NO.	CAS NO.	EINECS NO.	WT%
Tetra Ethyl Thiuram Disulfide	97-77-8	202-607-8	98.5-101

3. HAZARD IDENTIFICATION

Classification of the substance or mixture :

Classification according to EU directives 67/548/EEC or 1999/45/EC REGULATION (EC) No. 1272/2008

N, Xn, Xi, R20/22, R36/38, R43, R48/22, R50/53

Classification of the substance or mixture

Acute tox:Cat.4; Skin sensitization: Cat.1; Aquatic acute: Cat.1; Germ cell mutagenicity Cat. 2; Specific target organ toxicity, single exposure; Respiratory tract irritation Cat.3

Label elements :

Hazard Statements

H302 Harmful if swallowed.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H332 Harmful if inhaled
H335 May cause respiratory irritation.
H341 May cause mutagenic effects
H410 Very toxic to aquatic life with long lasting effects.
Precautionary Statements Prevention P261 Avoid breathing dust/ fume /gas /mist / vapours /spray.
P262 Avoid contact with skin, eyes and clothing
P264 Wash hands thoroughly after handling
P271 Use only outdoors or in a ventilated area
P273 Avoid release to the environment.
P281 Wear protective gloves.

Precautionary Statements Prevention



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Precautionary Statements Response	P301+P312 If swallowed, seek advice of a medical practitioner P302+P352 If on skin, wash with plenty of soap and water P304+P340 If inhaled, remove victim to fresh air P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Precautionary Statements - storage	P403+P233 store in a well ventilated place. Keep container closed
Precautionary Statements - Disposal	P501 Dispose of contents/ container to an approved waste disposal plant.

4. FIRST AID MEASURES

General Advice:	If symptoms persist, call a physician. Show this material safety data sheet to the Doctor in attendance. Treat symptomatically. Use of alcoholic beverages may Enhance toxic effects. In case of allergic reaction after exposure, any future Exposure must be avoided.
Inhalation	Move to fresh air, if symptoms persist, seek medical advice
Skin Contact :	Wash immediately with soap and water
Eye Contact :	Rinse immediately as long as a possible with plenty of water. Seek medical advice if irritation persist
Ingestion :	Rinse mouth, give water to drink
Most important symptoms and effects, both acute and delayed	Harmful if swallowed. May cause anallergic skin reaction. Causes serious eye irritation. Harmful if inhaled. May cause respiratory irritation. May cause mutagenic effects. Very toxic to aquatic life with long lasting effects.

5. FIRE FIGHTING MEASURES

Extinguishing Media:	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Special hazards arising from the substance or mixture:	Hazardous decomposition products formed under fire conditions
Protective Equipment and Precautions for Firefighters	Wear self-contained breathing apparatus for firefighting if necessary.

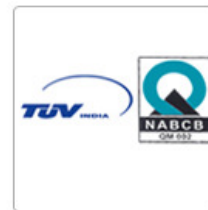
6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:	Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.
Environmental precautions:	Prevent further leakage or spillage if safe to do so. Do not let



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Methods and material for containment and cleaning up:

product enter drains. Discharge into the environment must be avoided.

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling:

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

Conditions for safe storage, including any incompatibilities & Storage:

Keep container tightly closed in a dry and well-ventilated place.

Recommended storage temperature: -20 °C.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Control parameters

Components with work place control parameters

Exposure controls

Engineering Controls:

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

Personal Protective Equipment:

Eye/face Protection :

Face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Respiratory protection

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Skin Protection :

Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hand protection:

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.



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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Powder
Colour:	Pale yellow solid
Odour:	Slightly amine like
pH-value:	No data available
Melting point/Melting range:	69-71°C (156-160 °F)
Boiling point/Boiling range:	117°C (243°F)
Flash point :	No data available
Vapour pressure :	Negligible
Density :	1.3 g/cm ³
Water Solubility :	0.02 g/100ml
Auto-ignition temperature :	No data available

10. STABILITY AND REACTIVITY

Reactivity	
Chemical stability	Stable under recommended storage conditions
Possibility of hazardous reactions	Carbon oxides, nitrogen oxides, sulfur oxides
Conditions to avoid	No data available
Incompatible materials:	Strong oxidizing agents

11. TOXICOLOGICAL INFORMATION

Acute toxicity: (LD50/oral/rat)	1,980 mg/kg
Skin irritation / sensitisation	no data available
Reproductive toxicity :	no data available
Eye irritation	Eyes – rabbit – no eye irritation – OECD Test Guideline 405
Germ cell mutagenicity :	Genotoxicity in vitro – hamster – Ovary- Sister chromatid exchange Genotoxicity in vitro – hamster – Embryo-Morphological transformation Genotoxicity in vitro – chicken – Embryo-Other mutation test systems Genotoxicity in vitro – mouse – Embryo-DNA inhibition Genotoxicity in vitro – mouse – Lymphocyte Genotoxicity in vitro – chicken – Embryo- DNA inhibition Genotoxicity in vivo – mouse – Oral-Sister chromatid exchange Genotoxicity in vivo – rat – Oral-Morphological transformation



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Carcinogenicity :

This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

IARC: 3 – Group 3: Not classifiable as to its carcinogenicity to humans (Tetraethylthiuramdisulfide)

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

12. ECOLOGICAL INFORMATION

Ecotoxicity :

Toxicity to fish: LC50 – *Poecilia reticulata* (guppy) – 0.187 mg/l – 96 h Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates: LC50 – *Daphnia magna* (Water flea) – 0.12 mg/l – 48 h

Toxicity to algae: Growth inhibition EC50 – *Chlorella pyrenoidosa* – 1.8 mg/l – 96 h

Mobility in soil

No data available

Persistence and degradability:

No data available

Bioaccumulative potential:

No data available

Results of PBT and vPvB assessment :

No data available

13. DISPOSAL CONSIDERATIONS

Waste Disposal methods

Product:

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated Packing

Dispose of as unused product.



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14. TRANSPORT INFORMATION

Road transport (ADR/RID/ADN)

ADR/RID Class	9
UN-No	3077
Packing Group	III
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Tetra Ethyl thiuram disulphide)

Sea transport (IMDG)

ADR/RID Class	9
UN-No	3077
Packing Group	III
Marine pollutant	YES
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Tetra ethyl thiuram disulphide)

Air transport (ICAO-TI/IATA)

ADR/RID Class	9
UN-No	3077
Packing Group	III
Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Tetra Ethyl thiuram disulphide)

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture	Regulation 1907/2006 REGULATION (EC)No 1272/2008 Classification according to EU directives 67/548/EEC or 1999/45/EC
Chemical safety assessment:	For this product a chemical safety assessment was not carried out

16. OTHER INFORMATION

Emergency seek Medical Aid