

Mixgran[®] DTDC 80

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION	
Manufacturer: Shandong Yanggu Huatai Chemical Co., LTD No.217, Qinghexi Road Yanggu County, Shandong, China 252300	Emergency Contact: Chemtrec: 1-800-424-9300 (USA) (1)330-542-8400 (outside USA)
Trade Name(s): Mixgran DTDC 80	Chemical Name: 1,1'-dithiobis[hexahydro-2H-azepin-2-one]
Relevant identified uses of the substance or mixture and uses advised against: None determined.	Application of the substance/the preparation: Mainly used as curing agent for natural rubber or synthetic rubber.
Issued By: Sovereign Chemical Company According to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and GHS	Date of Issue: April 15, 2024

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture
 Information in accordance with US 29 CFR 1910.1200 (Hazcom 2012) and Regulation (EC) No 1272/2008

Hazard statement
 Skin Sens. 1 H317
 Eye Irrit. 2 H319
 Aquatic Chronic 2 H411

The most important adverse physicochemical effects: Not applicable.

The most important adverse human health effects: May cause an allergic skin reaction. Causes serious eye irritation.

The most important adverse environmental effects: Toxic to aquatic life with long lasting effects.

Hazard Pictograms



Signal Word(S): Warning

Hazard Statement:

H317: May cause an allergic skin reaction.
 H319: Causes serious eye irritation.

H411: Toxic to aquatic life with long lasting effects.
 Precautionary Statement:
 P261: Avoid breathing dust/fume/gas/mist/vapors/spray.
 P264: Wash hands thoroughly after handling.
 P272: Contaminated work clothing should not be allowed out of the workplace.
 P273: Avoid release to the environment.
 P280: Wear protective gloves/protective clothing/eye protection/face protection.
 P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.
 P337 + P313: If eye irritation persists: Get medical advice/attention.
 P363: Wash contaminated clothing before reuse.
 P391: Collect spillage.
 P501: Dispose of contents/container to local/regional/national/ international regulation.
 Other hazards: Not available (PBT, vPvB, Substance is an endocrine disruptor etc.)

3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Chemical Name	CAS No	EC No	Weight %	Classification
Dithiocaprolactame	23847-08-7	245-910-0	80%	Skin Sens. 1 H317 Eye Irrit. 2 H319 Aquatic Chronic 2 H411
EPDM	23627-24-9	N/A	20%	N/A

The remaining unspecified ingredients are impurities and are not hazardous.

4. FIRST AID MEASURES

Description of first aid measures: In all cases of doubt, or when symptoms persist, seek medical attention.

In case of inhalation: Supply fresh air; consult doctor in case of complaints.

In case of skin contact: Immediately wash with water and soap and rinse thoroughly.

In case of eyes contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

In case of ingestion: Rinse out mouth and then drink plenty of water. Do NOT induce vomiting. Seek medical treatment.

Most important symptoms and effects, both acute and delayed May cause an allergic skin reaction. Causes serious eye irritation.

Indication of any immediate medical attention and special treatment needed If skin irritation or rash occurs, get medical advice/attention.

5. FIRE FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media: Water spray, foam, powder, carbon dioxide.

Unsuitable extinguishing media: Not available.

Special hazards arising from the substance or mixture: Formation of toxic gases is possible during heating or in case of fire.

Advice for fire-fighters: Wear a self-contained breathing apparatus in pressure-demand MSHA/ NIOSH (approved or equivalent), and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation. Avoid contact with skin and eyes.

For emergency responders: Wear an appropriate NIOSH/MSHA approved respirator if mist, vapor or dust is generated.

Environmental Precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

Methods for Containment and Cleaning up: Sweep up spilled material or soak in suitable container for disposal. Avoid dust formation.

Reference to other sections: See Section 7 for information on safe handling. See section 8 for information on personal protection equipment. See Section 13 for information on disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Protective measures: Prevent formation of aerosols and dust. Any unavoidable deposit of dust must be regularly removed. Ensure good ventilation/exhaustion at workplace. Keep ignition sources away. Protect against electrostatic charges.

Advice on general occupational hygiene: Do not eat, drink and smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas.

Conditions for safe storage, including any incompatibilities: Keep container tightly closed in a dry, well ventilated place. Keep away from foodstuffs, beverages, feed and tobacco products.

Specific end use(s): Not applicable.

8. EXPOSURE CONTROLS - PERSONAL PROTECTION

Control parameters

Occupational exposure limits: Not available.
 Additional exposure limits under the conditions of use: Not available.
 DNEL/DMEL and PNEC-Values: Not available.

Exposure controls

Appropriate engineering controls: Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Individual protection measures, such as personal protective equipment:

- Eye/face protection: Tightly sealed goggles.
- Hand protection: Use protective gloves (e.g. rubber gloves). Avoid direct contact with the chemical by organizational measures.
- Body protection: Use protective suit.
- Respiratory protection; In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- Thermal hazards Wear suitable protective clothing to prevent heat.

Environmental exposure controls:

Avoid discharge into the environment. According to local regulations, Federal and official regulations.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Form: Granulate Color: White or light yellow	Change in Condition Melting Point/Melting Range: 136.06 °C Boiling Point/Boiling Range: 248.6 °C
Odor: Odorless.	Octanol/Water Partition Coefficient: 2.25 (30 °C)
Odor threshold: Not determined	Solvent Content: Organic solvents: Not determined
pH: Not applicable	Solids content: Not determined
Vapor Pressure: Not applicable	Flash point: Not applicable
Density at 20 °C: Not applicable.	Flammability (solid, gaseous): Not determined.
Relative density: 1.319	Ignition temperature: Not determined
Vapor Density: Not applicable	Decomposition temperature: Not determined
Evaporation rate Not applicable	Self-igniting: Product is not self-igniting.
Solubility in / Miscibility with water at 20 °C: Soluble.	Danger of explosion: Product does not present an explosion hazard
Viscosity Dynamic: Not applicable Kinematic: Not applicable	Explosion limits Lower: Not determined. Upper: Not determined

10. STABILITY AND REACTIVITY

Reactivity: The substance is stable under normal storage and handling conditions.

Chemical stability: Stable at room temperature in closed containers under normal storage and handling conditions.

Possibility of hazardous reactions: Risk of dust explosion.

Conditions to avoid: Incompatible materials. Keep away from heat and direct sunlight.

Incompatible materials: Acids and bases.

Hazardous decomposition products: Formation of toxic gases is possible during heating or in case of fire.

11. TOXICOLOGICAL INFORMATION

Toxicokinetic, metabolism and distribution

Non-human toxicological data: Not available

Information on toxicological effects

Acute toxicity:

LD50(Oral, Rat): > 2000 mg/kg bw

LD50(Dermal, Rat): > 2000 mg/kg bw

LC50(Inhalation, Rat): Not available

Skin corrosion/Irritation: Not classified.

Serious eye damage/irritation: Causes serious eye irritation.

Respiratory or skin sensitization: May cause an allergic skin reaction.

Germ cell mutagenicity: Not classified

Carcinogenicity: Not classified

Reproductive toxicity: Not classified

STOT- single exposure: Not classified

STOT-repeated exposure: Not classified

Aspiration hazard: Not classified

12. ECOLOGICAL INFORMATION

Toxicity

Acute toxicity	Time	Species	Method	Evaluation	Remarks
LC50 7.5 mg/L	96h	Fish	OECD 203	N/A	N/A
EC50 > 100 mg/L	48h	Daphnia	OECD 202	N/A	N/A
EC50 > 100 mg/L	72h	Algae	OECD 201	N/A	N/A

Persistence and degradability: The test material cannot be considered as readily biodegradable.
 Bioaccumulative potential: BCF: 14.2 L/kg
 Mobility in soil: Not available.
 Results of PBT&vPvB assessment: Not available.
 Other adverse effects: Not available.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

Product / Packaging disposal

If empty container retains product residues, all label precautions must be observed. Return for reuse or dispose according to national or local regulations.

14. TRANSPORTATION INFORMATION

UN-Number
 DOT, TDG
 ADR, IMDG, IATA

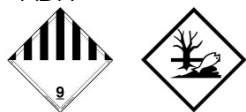
Not regulated.
 UN3077

UN proper shipping name
 DOT, TDG
 ADR
 IMDG
 IATA

Not regulated.
 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
 (Contains Dithiocaprolactame)
 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
 (Contains Dithiocaprolactame)
 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.
 (Contains Dithiocaprolactame)

Transport hazard class(es)
 DOT, TDG
 ADR

Not regulated.



Class: 9 (M7) Miscellaneous dangerous substances and articles.
 Label: 9



Class: 9 Miscellaneous dangerous substances and articles.
 Label: 9

Packing group
 DOT, TDG

Not regulated.

ADR, IMDG, IATA	III
Environmental hazards	Product contains environmentally hazardous substances: di(benzothiazol-2-yl) disulphide
Marine pollutant	Yes
Special Marking (ADR)	Symbol (fish and tree)
Special Marking (IATA)	Symbol (fish and tree)

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: IBC08

15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

United States (USA)	
SARA Section 355 (extremely hazardous substances)	Substance is not listed.
SARA Section 313 (Specific toxic chemical listings)	Substance is not listed.
TSCA (Toxic Substances Control Act)	Substance is listed.
Proposition 65 (California)	
Chemicals known to cause cancer	Substance is not listed.
Chemicals known to cause reproductive toxicity for females	Substance is not listed.
Chemicals known to cause reproductive toxicity for males	Substance is not listed.
Chemicals known to cause developmental toxicity	Substance is not listed.
Carcinogenic Categories	
EPA (Environmental Protection Agency)	Substance is not listed.
IARC (International Agency for Research on Cancer)	Substance is not listed.
TLV (Threshold Limit Value established by ACGIH)	Substance is not listed.
NIOSH-Ca (National Institute for Occupational Safety and Health)	Substance is not listed.
OSHA-Ca (Occupational Safety & Health Administration)	Substance is not listed.
Canada	
Canadian Domestic Substances List (DSL)	Substance is listed.
Canadian Ingredient Disclosure list (limit 0.1%)	Substance is not listed.
Canadian Ingredient Disclosure list (limit 1%)	Substance is not listed.

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16. OTHER INFORMATION

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.