

# Sovchem<sup>®</sup> MBTS

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION	
Manufacturer Sovereign Chemical Company 4040 Embassy Parkway, Suite 190 Akron, OH 44333	Emergency Contact Chemtrec: 1-800-424-9300 (USA) (1)330-542-8400 (outside USA)
Trade Name(s): Sovchem <sup>®</sup> MBTS Powder, Granule or Oiled Powder	Chemical Name: 2-Mercaptobenzothiazole Disulfide
Relevant identified uses of the substance or mixture and uses advised against: No further relevant information available.	Application of the substance/the preparation: Chemicals for synthesis.
Issued By: Sovereign Chemical Company  According to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and GHS	Date of Issue: May 1, 2023

2. HAZARDS IDENTIFICATION
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2.1 Classification of the substance or mixture:  
 Information in accordance with US 29 CFR 1910.1200 (Hazcom 2012) and Regulation (EC) No 1272/2008  
 The following Hazard Statements are applicable only to the EU regulations and not the US GHS regulation:  
 H400, H410.

Aquatic Acute 1	H400 Very toxic to aquatic life.
Aquatic Chronic 1	H410 Toxic to aquatic life with long lasting effects.
Skin Sens. 1	H317 May cause an allergic skin reaction.

2.2 Label elements  
 The following Hazard Statements are applicable only to the EU regulations and not the US GHS regulation:  
 H410.  
 The product is additionally classified and labelled according to the Globally Harmonized System (GHS) within the United States.  
 The product is classified and labeled according to the CLP regulation.

Hazard pictograms



GHS07      GHS09

Signal word: Warning

**Hazard Statements**

H317 - May cause an allergic skin reaction  
 H410 - Very toxic to aquatic life with long lasting effects

**Precautionary Statements** P280 - Wear protective gloves/protective clothing/eye protection/face protection

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray  
 P273 - Avoid release to the environment  
 P302 + P352 - IF ON SKIN: Wash with plenty of soap and water  
 P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention  
 P391 - Collect spillage.  
 P501 - Dispose of contents/ container in accordance with local/regional/national/international regulation.

**2.3 Other hazards**

Results of PBT and vPvB assessment  
 PBT: Not applicable.  
 vPvB: Not applicable.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**3.1 Substance**

Chemical Name	CAS No	EC No	Weight %	Classification
Dibenzothiazole Disulfide	120-78-5	204-424-9	97-100%	Skin Sens. 1 (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)

The remaining unspecified ingredients are impurities and are not hazardous.

**4. FIRST AID MEASURES**

**4.1 Description of first aid measures**

General information: Immediately remove any clothing soiled by the product.

**After inhalation**

Supply fresh air; consult doctor in case of complaints.  
 In case of irregular breathing or respiratory arrest provide artificial respiration.  
 In case of unconsciousness place patient stably inside position for transportation.

**After skin contact**

Immediately wash with water and soap and rinse thoroughly.  
 If skin irritation continues, consult a doctor.

**After eye contact**

Remove contact lenses if worn.  
 Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

**After swallowing**

Rinse out mouth and then drink plenty of water.  
 Do not induce vomiting; call for medical help immediately.

**4.2 Most important symptoms and effects, both acute and delayed**

Allergic reactions  
Gastric or intestinal disorders  
Dizziness  
Coughing  
Hazards: Danger of impaired breathing.

4.3 Indication of any immediate medical attention and special treatment needed  
Treat skin and mucous membrane with antihistamine and corticoid preparations.  
In cases of irritation to the lungs, initial treatment with cortical steroid inhalants.  
Monitor circulation.  
If necessary, oxygen respiration treatment.

## 5. FIRE FIGHTING MEASURES

### 5.1 Extinguishing media

Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.  
For safety reasons, unsuitable extinguishing agents: None.

5.2 Special hazards arising from the substance or mixture: During heating or in case of fire poisonous gases are produced.

### 5.3 Advice for firefighters

#### Protective equipment

Wear self-contained respiratory protective device.

Wear fully protective suit.

Additional information: Cool endangered receptacles with water spray.

## 6. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment, and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation.

### 6.2 Environmental precautions

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

### 6.3 Methods and material for containment and cleaning up

Pick up mechanically.

Send for recovery or disposal in suitable receptacles.

Do not flush with water or aqueous cleansing agents.

### 6.4 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 disposal information.

## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Store in cool, dry place in tightly closed receptacles.

Prevent formation of dust.

Use only in well ventilated areas.

Information about fire and explosion protection: Keep respiratory protective device available.

7.2 Conditions for safe storage, including any incompatibilities

Storage

Requirements to be met by storerooms and receptacles

Store in a cool location.

Avoid storage near extreme heat, ignition sources or open flame.

Protect from humidity and water.

Information about storage in one common storage facility

Do not store together with acids.

Store away from oxidizing agents.

Store away from foodstuffs.

Further information about storage conditions

Store in cool, dry conditions in well-sealed receptacles.

Protect from humidity and water.

7.3 Specific end use(s): No further relevant information available.

## 8. EXPOSURE CONTROLS - PERSONAL PROTECTION

Additional information about design of technical facilities: No further data; see Section 7.

8.1 Control parameters

Exposure Limits

Dibenzothiazole Disulfide (CAS # 120-78-5): OES-TWA 5.0 mg/m<sup>3</sup>; TLV (United States):10 mg/m<sup>3</sup>.

Derived No Effect Level (DNEL)

Workers

Inhalation, Systemic effects, Long term: 8.8 mg/m<sup>3</sup>

Dermal, Systemic effects, Long term: 5 mg/kg bw/day

General Population

Inhalation, Systemic effects, Long term: 2.2 mg/m<sup>3</sup>

Inhalation, Systemic effects, Acute/short term: 17.6 mg/m<sup>3</sup>

Dermal, Systemic effects, Long term: 2.5 mg/kg bw/day

Dermal, Systemic effects, Acute/short term: 20 mg/kg bw/day

Oral, Systemic effects, Long term: 1.25 mg/kg bw/day

Oral, Systemic effects, Acute/short term: 10 mg/kg bw/day

Predicted No Effect Concentration (PNEC)

PNEC STP: 3.8 mg/L

PNEC sediment (freshwater): 0.22 mg/kg sediment dw

PNEC sediment (marine water): 0.022 mg/kg sediment dw

8.2 Exposure controls

Personal protective equipment

General protective and hygienic measures

The usual precautionary measures are to be adhered to when handling chemicals.  
 Keep away from foodstuffs, beverages, and feed.  
 Immediately remove all soiled and contaminated clothing.  
 Wash hands before breaks and at the end of work.  
 Avoid contact with the eyes and skin.

**Respiratory protection**

Use suitable respiratory protective device in case of insufficient ventilation.  
 Use suitable respiratory protective device when high concentrations are present.

**Protection of hands**



Protective gloves

The glove material must be impermeable and resistant to the product/ the substance/ the preparation.  
 Due to missing tests, no recommendation to the glove material can be given for the product/ the preparation/the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

**Material of gloves**

- Butyl rubber, BR
- Nitrile rubber, NBR
- Neoprene gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.

**Penetration time of glove material**

The exact break through time must be found out by the manufacturer of the protective gloves and must be observed.

**Eye protection**



Safety glasses

Body protection: Protective work clothing.

Limitation and supervision of exposure into the environment: No further relevant information available.

**Risk management measures**

See Section 7 for additional information.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

9.1 Information on basic physical and chemical properties

General Information

Appearance Form: Powder or granule. Color: Pale yellow.	Change in Condition Melting Point/Melting Range: 164 °C Boiling Point/Boiling Range: Decomposes above 240 °C
Odor: Aromatic	Octanol/Water Partition Coefficient: Not determined.
Odor threshold: Not determined.	pH Value: Not applicable.
Vapor pressure: 1.35 x 10 <sup>-9</sup> hPa (25°C)	Flash point: Not applicable.
Density at 20 °C: 1.56 g/cm <sup>3</sup> .	Flammability (solid, gaseous): Not determined.
Relative density: 1.5 (20 °C )	Ignition temperature: Not determined.

Vapor density: Not applicable.	Decomposition temperature: > 240 °C
Evaporation rate: Not applicable.	Self-igniting: Product is not self-igniting.
Solubility in / Miscibility with water: Water: 0.05 mg/L ( 20 °C)	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.
Solvent content: Solids content: Not determined.	

9.2 Other information: No further relevant information available.

## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

### 10.2 Chemical stability

Thermal decomposition/conditions to be avoided: No decomposition if used and stored according to specifications.

### 10.3 Possibility of hazardous reactions

Contact with acids releases toxic gases.

Toxic fumes may be released if heated above the decomposition point.

Reacts with oxidizing agents.

As the product is supplied it is not capable of dust explosion; however, enrichment with fine dust causes risk of dust explosion.

### 10.4 Conditions to avoid: Store away from oxidizing agents.

### 10.5 Incompatible materials: Contact with acids liberates toxic gases.

### 10.6 Hazardous decomposition products

Sulfur oxides (SO<sub>x</sub>)

Nitrogen oxides

Carbon monoxide and carbon dioxide

Danger of forming toxic pyrolysis products.

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### Acute toxicity

Dibenzothiazole Disulfide (CAS #: 120-78-5)

LD50 oral rat > 7940 mg/kg

LD50 dermal rabbit > 7940 mg/kg

#### Skin corrosion/irritation

Not irritating, rabbit.

#### Serious eye damage/eye irritation

Not irritating, rabbit.

Sensitization

May cause sensitization by skin contact, guinea pig.

Germ cell mutagenicity

Genotoxicity: Negative for genetic activity - in vitro tests. Negative for genetic activity - in vivo tests.

Carcinogenicity

Not classified.

Reproductive toxicity

Not classified.

STOT - single exposure

Not classified.

STOT - repeated exposure

Not classified.

Aspiration hazard

Not classified.

## 12. ECOLOGICAL INFORMATION

12.1. Toxicity

Very toxic to aquatic life with long lasting effects.

12.2. Persistence and degradability

Degradation: 0%, 28day;

Not readily biodegradable.

12.3. Bioaccumulative potential

Partition coefficient (Log Pow): 4.5 (25°C);

BCF: 51

12.4. Mobility in soil

Log Koc = 3.72

12.5. Results of PBT and vPvB assessment

This substance is not considered to be persistent, bioaccumulating nor toxic (PBT). This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

12.6 Other adverse effects: No further relevant information available.

## 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system. Can be burned with household garbage after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.

Un-cleaned packaging

Recommendation: Disposal must be made according to official regulations.

**14. TRANSPORTATION INFORMATION**

14.1 UN-Number

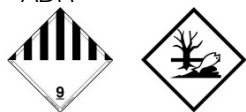
DOT, TDG	Not regulated.
ADR, IMDG, IATA	UN3077

14.2 UN proper shipping name

DOT, TDG	Not regulated.
ADR	3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (di(benzothiazol-2-yl) disulphide)
IMDG	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (di(benzothiazol-2-yl) disulphide), MARINE POLLUTANT
IATA	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (di(benzothiazol-2-yl) disulphide)

14.3 Transport hazard class(es)

DOT, TDG	Not regulated.
ADR	



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

IMDG, IATA



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

14.4 Packing group

DOT, TDG	Not regulated.
ADR, IMDG, IATA	III

14.5 Environmental hazards

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

14.6 Special precautions for user

Danger code (Kemler)	Warning: Miscellaneous dangerous substances and articles
EMS Number	90
	F-A, S-F.

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable.  
Transport/Additional information



ADR  
 Limited quantities (LQ) 5 kg  
 Transport category 3  
 Tunnel restriction code E  
 UN "Model Regulation" UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (di(benzothiazol-2-yl) disulphide), 9, III

**15. REGULATORY INFORMATION**

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

United States (USA)	
SARA Section 355 (extremely hazardous substances)	None of the ingredients is listed.
SARA Section 313 (Specific toxic chemical listings)	None of the ingredients is listed.
TSCA (Toxic Substances Control Act)	All ingredients are listed.
Proposition 65 (California)	
Chemicals known to cause cancer	None of the ingredients is listed.
Chemicals known to cause reproductive toxicity for females	None of the ingredients is listed.
Chemicals known to cause reproductive toxicity for males	None of the ingredients is listed.
Chemicals known to cause developmental toxicity	None of the ingredients is listed.
Carcinogenic Categories	
EPA (Environmental Protection Agency)	None of the ingredients is listed.
IARC (International Agency for Research on Cancer)	None of the ingredients is listed.
TLV (Threshold Limit Value established by ACGIH)	None of the ingredients is listed.
NIOSH-Ca (National Institute for Occupational Safety and Health)	None of the ingredients is listed.
OSHA-Ca (Occupational Safety & Health Administration)	None of the ingredients is listed.
Canada	
Canadian Domestic Substances List (DSL)	All ingredients are listed.
Canadian Ingredient Disclosure list (limit 0.1%)	None of the ingredients is listed.
Canadian Ingredient Disclosure list (limit 1%)	All ingredients are listed.

15.2 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.