

Sovchem® ZMBT

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION	
Manufacturer Sovereign Chemical Company 4040 Embassy Parkway, Suite 190 Akron, OH 44333	Emergency Contact Chemtrec: 1-800-424-9300 (continental USA) (1)703-527-3887 (outside continental USA)
Trade Name(s): Sovchem® ZMBT Powder Chemical Name: 2-Benzothiazolethione	Synonyms: Zinc 2-mercaptobenzothiazolate or Zinc salt of 2-mercaptobenzothiazole
Relevant identified uses of the substance or mixture and uses advised against: No further relevant information available.	Application of the substance/the preparation: Initial product for chemical reactions.
Issued By: Sovereign Chemical Company According to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and GHS	SDS Number: 1846 Date of Issue: May 19, 2015 Revision Number: 2 (Supersedes: August 19, 2010) Change(s): Update to GHS requirement.

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008: The following Hazard Statements are applicable only to the EU regulations and not the US GHS regulation: H400, H410.



GHS09 Environment

Aquatic Acute 1

Aquatic Chronic 1

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.



GHS07

Skin Sens. 1

H317 May cause an allergic skin reaction.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC



Xi; Sensitizing

R43: May cause sensitization by skin contact.



N; Dangerous for the environment,

R50/53: Very toxic to aquatic organisms; may cause long-term adverse effects in the aquatic environment.

Information concerning particular hazards for human and environment: The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Classification system

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

The classification is in accordance with the latest editions of international substances lists, and is supplemented by information from technical literature and by information provided by the company.

2.2 Label elements

Labeling according to Regulation (EC) No 1272/2008

The following Hazard Statements are applicable only to the EU regulations and not the US GHS regulation: H410.

The substance is classified and labeled according to the CLP regulation.

Hazard pictograms



This pictogram only applicable for EU regulations. Not for use in the United States (OSHA GHS)



GHS07 GHS09

Signal word: Warning

Hazard-determining components of labeling

Zinc 2-Mercaptobenzothiazole

benzothiazole-2-thiol

Hazard statements

The following Hazard Statements are applicable only to the EU regulations and not the US GHS regulation: H410.

H317 May cause an allergic skin reaction

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

P261 Avoid breathing dust/fume/gas/mist/vapors/spray.

P280 Wear protective gloves and eye protection.

P273 Avoid release to the environment.

P363 Wash contaminated clothing before reuse.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

Additional information: Contains Zinc 2-Mercaptobenzothiazole, benzothiazole-2-thiol. May produce an allergic reaction.

Hazard description

WHMIS-symbols



D2B – Toxic material causing other toxic effects.

NFPA ratings (scale 0-4)



Health = 1
Fire = 1
Reactivity = 0

HMIS ratings (scale 0-4)

HEALTH	1
FIRE	1
REACTIVITY	0

Health = 1
Fire = 1
Reactivity = 0

HMIS Long Term Health Hazard Substances: None of the ingredients is listed.

2.3 Other hazards

Results of PBT and vPvB assessment











PBT: Not applicable.

vPvB: Not applicable.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Description: Mixture of substances listed below with nonhazardous additions.

Dangerous components

CAS: 155-04-4 EINECS: 205-840-3	Zinc 2-Mercaptobenzothiazole  Xi R43;  N R50/53  Aquatic Acute 1, H400, Aquatic Chronic 1, H410  Skin Sens. 1, H317	50-100%
CAS: 149-30-4 EINECS: 205-736-8 Index number: 613-108-00-3	benzothiazole-2-thiol  Xi R43;  N R50/53  Aquatic Acute 1, H400, Aquatic Chronic 1, H410  Skin Sens. 1, H317	10-25%
CAS: 8042-47-5 EINECS: 232-455-8	White Mineral Oil  Xn R65  Asp. Tox. 1, H304	<10%

Additional information: For the wording of the listed risk phrases refer to section 16.

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.

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

Nausea

Cramp

Dizziness

Coughing

Hazards: No further relevant information available.

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 corticoid steroid inhalants.

Medical supervision for at least 48 hours.

5. FIRE FIGHTING MEASURES**5.1 Extinguishing media**

Suitable extinguishing agents

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

For safety reasons, unsuitable extinguishing agents: None.

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

5.3 Advice for firefighters

Protective equipment

Wear self-contained respiratory protective device.

Wear fully protective suit.

Additional information: No further relevant information available.

6. ACCIDENTAL RELEASE MEASURES**6.1 Personal precautions, protective equipment and emergency procedures**

Use respiratory protective device against the effects of fumes/dust/aerosol.

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.

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**

Prevent formation of dust.

Any unavoidable deposit of dust must be regularly removed.

Information about fire and explosion protection: No special measures required.

7.2 Conditions for safe storage, including any incompatibilities

Storage

Requirements to be met by storerooms and receptacles

Store in a cool location.

Protect from humidity and water.

Information about storage in one common storage facility

Store away from foodstuffs.

Do not store together with oxidizing and acidic materials.

Further information about storage conditions: Store in cool, dry conditions in well-sealed receptacles.

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 item 7.

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace: 149-30-4 benzothiazole-2-thiol

WEEL (USA)	5 mg/m ³ Skin; DSEN
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DNELs: No further relevant information available.

PNECs: No further relevant information available.

Additional information: The lists valid during the making were used as basis.

8.2 Exposure controls

Personal protective equipment

General protective and hygienic measures

The usual precautionary measures are to be adhered to when handling chemicals.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

Respiratory protection

Suitable respiratory protective device recommended.

Use suitable respiratory protective device in case of insufficient ventilation.

Protection of hands



Protective gloves

The glove material has to 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

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 has to be found out by the manufacturer of the protective gloves and has to 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.

No further relevant information available.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

General Information

Appearance Form: Powder. Color: Light Yellow.	Change in Condition Melting Point/Melting Range: Undetermined. Boiling Point/Boiling Range: Undetermined.
Odor: Light.	Octanol/Water Partition Coefficient: Not determined.
Odor threshold: Not determined.	pH value: Not applicable.
Vapor Pressure: Not applicable.	Flash point: Not applicable.
Density at 20 °C: 1.7 g/cm ³ .	Flammability (solid, gaseous): Not determined.
Relative density: Not determined.	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: Insoluble.	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: Organic solvents: Not determined.	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

Reacts with strong acids and oxidizing agents.

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

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: No further relevant information available.

10.6 Hazardous decomposition products

Toxic metal oxide smoke.

Sulfur oxides (SO_x)

Nitrogen oxides (NO_x)

Carbon monoxide and carbon dioxide.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

LD/LC50 values relevant for classification: 149-30-4 benzothiazole-2-thiol		
Oral	LD50	3800 mg/kg (rat)
Dermal	LD50	>7940 mg/kg (rabbit)

Primary irritant effect

On the skin: No irritating effect.

On the eye: No irritating effect.

Sensitization: Sensitization possible through skin contact.

Additional toxicological information

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Irritant

Danger through skin adsorption.

Sensitization: Sensitization possible by skin contact.

Repeated dose toxicity: Repeated exposures may result in skin and/or respiratory sensitivity.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Aquatic toxicity: Toxic for aquatic organisms.

12.2 Persistence and degradability: No further relevant information available.

12.3 Bio-accumulative potential: May be accumulated in organism.

12.4 Mobility in soil: No further relevant information available.

Exotoxical effects

Remark: Very toxic for fish.

Additional ecological information

General notes

This statement was deduced from the properties of the single components.

The product contains heavy metals. Avoid transfer into the environment. Specific preliminary treatments are necessary

Due to available data on eliminability/decomposition and bioaccumulation potential prolonged term damage of the environment cannot be excluded.

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

Also, poisonous for fish and plankton in water bodies.

Very toxic for aquatic organisms.

12.5 Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

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 Not regulated.
 ADR, IMDG, IATA UN3077

14.2 UN proper shipping name

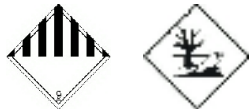
DOT Not regulated.
 ADR 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,
 N.O.S. (benzothiazole-2-thiol)

IMDG ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,
 N.O.S. (benzothiazole-2-thiol), MARINE POLLUTANT
 IATA ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,
 N.O.S. (benzothiazole-2-thiol)

14.3 Transport hazard class(es)

DOT Class 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 N/A
 ADR, IMDG, IATA III

14.5 Environmental hazards

Marine pollutant

Product contains environmentally hazardous substances:
 benzothiazole-2-thiol

Yes

Symbol (fish and tree)

Special Marking (ADR)

Symbol (fish and tree)

Special Marking (IATA)

Symbol (fish and tree)

14.6 Special precautions for user Warning: Miscellaneous dangerous substances and articles.
 Danger code (Kemler) 90
 EMS Number 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. (benzothiazole-2-thiol), 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)	149-30-4 benzothiazole-2-thiol. Zinc compound.
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%)	None of the ingredients is listed.
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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.

Relevant phrases

- H304 May be fatal if swallowed and enters airways.
- H317 May cause an allergic skin reaction.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.
- R43 May cause sensitization by skin contact.
- R50/53 Very toxic to aquatic organisms may cause long-term adverse effects in the aquatic environment.
- R65 Harmful: may cause lung damage if swallowed.

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labeling of Chemicals

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service) division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

WHMIS: Workplace Hazardous Materials Information System (Canada)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent