



Sovchem[®] ZDBC

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 [®] ZDBC Oiled Powder, Sovchem [®] ZDBC Powder, Sovchem [®] ZDBC Granule	Chemical Name: Zinc bis(dibutyldithiocarbamate)
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 4040 Embassy Parkway, Suite 190 Akron, Ohio 44333	Date of Issue: May 15, 2026

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Information in accordance with US 29 CFR 1910.1200 (Hazcom 2012), Regulation (EC) No 1272/2008, 1907/2006/EC (REACH), and GHS

Hazard Pictograms (CLP)	:  GHS07,  GHS09
Signal Word	: Warning
Hazard statements (CLP)	: H315 – Causes skin irritation, Category 2 H317 – May cause an allergic skin reaction, Category 1 H319- Causes serious eye irritation, Category 2 H335 – May cause respiratory irritation, Category 3 H400 - Very toxic to aquatic life, Category 1 H410 - Very toxic to aquatic life with long lasting effects, Category 1
Precautionary statements (CLP)	: P264- Wash hands thoroughly after handling P280 - Wear protective gloves/protective clothing/eye protection/face protection P332 + P313 - IF SKIN irritation occurs: Get medical advice/attention P362 - Take off contaminated clothing and wash before reuse P305 + P251 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing P337 + P313P - IF eye irritation persists: Get medical advice/attention P261 – Avoid breathing dust/fume/gas/mist/vapors/spray P272 - Contaminated work clothing should not be allowed out of

the workplace
 P280 - Wear protective clothing, eye protection, face protection, protective gloves
 P302+P352 - IF ON SKIN: Wash with plenty of soap and water
 P321 – Specific treatment (see supplemental first aid instructions on this label)
 P333+ P313 - If skin irritation or rash occurs: Get medical advice/attention
 P501 - Dispose of contents/ container to an approved waste disposal plant
 P363 - Wash contaminated clothing before reuse
 P273 - Avoid release to the environment
 P391 - Collect spillage. Hazardous to the aquatic environment
 P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
 P271 - Use only outdoors or in a well-ventilated area
 P304 + P340 - IF INHALED: Remove victim to fresh air and Keep at rest in a position comfortable for breathing.
 P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
 P403 + P233 - Store in a well-ventilated place. Keep container tightly closed
 P405 – Store locked up

Other Hazard : This substance does not meet the criteria for PBT / vPvB of REACH regulation, annex XIII

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Chemical Name	CAS No	EC No	Weight %	Classification
Zinc dibutyl dithiocarbamate (ZDBC)	136-23-2	205-232-8	≥ 97	H315 – Causes skin irritation, Category 2 H317 – May cause an allergic skin reaction, Category 1 H319- Causes serious eye irritation, Category 2 H335 – May cause respiratory irritation, Category 3 H400 - Very toxic to aquatic life, Category 1 H410 - Very toxic to aquatic life with long lasting effects, Category 1

4. FIRST AID MEASURES

Description of first aid measures

First-aid measures general: In all cases of doubt, or when symptoms persist, seek medical attention.

First-aid measures after inhalation:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.
First-aid measures after skin contact:	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. If skin irritation persists, call a physician.
First-aid measures after eye contact:	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/ attention.
First-aid measures after ingestion:	Rinse mouth. Get medical attention. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

General:	Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction. May cause respiratory irritation.
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Indication of any immediate medical attention and special treatment needed

General:	Treat symptomatically. Persons with pre-existing skin, eye, or respiratory disease may be at increased risk from the irritant or allergic properties of this material. Attending physician should treat exposed patients symptomatically.
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5. FIRE FIGHTING MEASURES

Extinguishing media

Suitable extinguishing agents:	Dry chemical, CO ₂ , water spray.
Unsuitable extinguishing agents:	Water jet.

Special hazards arising from the substance or mixture

General:	Thermal decomposition can lead to release of irritating and toxic gases and vapors, such as carbon oxides, sulfur oxides, nitrogen oxides, hydrogen cyanide, zinc oxides.
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Advice for firefighters

General:	Wear self-contained breathing apparatus and protective suit. Do not allow run-off from fire-fighting to enter drains or water courses.
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6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

General measures: Evacuate personnel to safe areas. Ensure adequate ventilation, especially in confined areas. Remove all sources of ignition. Do not touch or walk through spilled material. Avoid contact with skin, eyes or clothing. Avoid generation of dust. Avoid breathing dust/fume/gas/mist/vapors/spray. Use personal protection recommended in Section 8.

Environmental precautions

General precautions: Do not allow run-off from fire-fighting to enter drains or water courses. Local authorities should be advised if significant spillages cannot be contained.

Methods and material for containment and cleaning up

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

Reference to other sections

Sections: See Section 7 for more information
See section 8 for more information
See section 13 for more information

7. HANDLING AND STORAGE

Precautions for safe handling

General: Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation, especially in confined areas. Avoid contact with skin, eyes or clothing. Wash contaminated clothing before reuse. Take precautionary measures against static discharges. Avoid generation of dust. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Use personal protection recommended in Section 8.

Conditions for safe storage, including any incompatibilities

General: Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat. Store away from strong oxidizing materials. Avoid exposure to direct sunlight. Keep locked up and out of reach of children.

Keep away from food, drink and animal feeding stuffs.
Store in accordance with local regulations.

Specific end use(s)

General: No other information available.

8. EXPOSURE CONTROLS - PERSONAL PROTECTION

Control Parameters

General: No data available.

Derived no effect level (DNEL):

Workers: Inhalation, Systemic effects, Long term: 6 mg/m³
Dermal, Systemic effects, Long term: 800 mg/kg bw/day

General Population: Inhalation, Systemic effects, Long terms: 2 mg/m³
Dermal, Systemic effects, Long term: 480 mg/kg bw/day
Oral, Systemic effects, Long terms: 1 mg/kg bw/day

Predicted no effect concentration (PNEC):

Freshwater	0.32 µg/L
Marine water	0.032 mg/L
STP	3.65 µg/L
Sediment (freshwater)	32 mg/kg sediment dw
Sediment (marine water)	3.2 mg/kg sediment dw
Soil	6.4 mg/kg soil dw
Oral	4.56 mg/kg food

Exposure controls

Engineering controls: Ensure adequate ventilation, especially in confined areas. Showers. Eyewash stations. Remove all sources of ignition.

Personal protective equipment: Suitable protective clothing.

Eye protection: Safety goggles or eye protection in combination with breathing protection.

Hand protection: Use protective rubber gloves.

Respiratory protection: Appropriate respiratory protection shall be worn when applied engineering controls are not adequate to protect against inhalation exposure.

Thermal hazard: No information available.

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Form: Solid powder or granule	Melting Point/Range: 100-112 °C
Color: White to off-white	Boiling Point/Range: 318 °C
Odor: Odorless	Odor threshold: Not determined
pH: Not determined	Flash point: Not available
Vapor Pressure: < 1E-04 Pa @ 25 °C	Flammability: Not available
Density at 20 °C: 1.48 g/cm ³	Ignition temperature: Not available
Relative density: Not available	Decomposition temperature: Not available
Solubility: Water: <1 mg/L	Partition coefficient (n-octanol/water): Not available
Oxidizing properties: Not determined	Explosion limits: Lower: Not applicable Upper: Not applicable

Other information: No further relevant information available.

10. STABILITY AND REACTIVITY

Reactivity: Stable under recommended storage and handling conditions.

Chemical Stability: Stable under recommended storage and handling conditions.

Possibility of hazardous reactions: No hazardous reactions known. Hazardous polymerization does not occur.

Conditions to avoid: Heat, flames and sparks. Incompatible materials.

Incompatible materials: Strong oxidizing agents. Strong acids.

Hazardous decomposition products: Carbon oxides, sulfur oxides, nitrogen oxides, hydrogen cyanide, zinc oxides.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity: Harmful if swallowed. Harmful if inhaled.

Zinc dibutyl dithiocarbamate (CAS: 136-23-2)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg

Skin corrosion/irritation: Causes skin irritation.

Serious eye damage: Causes serious eye irritation.

Sensitization: May cause an allergic skin reaction.

Germ cell mutagenicity: Negative.

Carcinogenicity: Not listed as carcinogen by ACGIH, IARC, NIOSH, NTP, or OSHA. No adverse effect was reported and no statistically significant increases in tumor incidences were observed.

Reproductive toxicity: Not classified

STOT single exposure: May cause respiratory irritation.

STOT multiple exposure: Not classified.
NOAEL = 10 mg/kg bw/day, rat

Aspiration hazard: Not classified

Endocrine disrupting properties: The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

Other information: No information available

12. ECOLOGICAL INFORMATION

Toxicity

Very toxic to aquatic life with long lasting effects.

Zinc dibutyl dithiocarbamate(CAS: 136-23-2)	
LC50 96h – Fish	> 16 mg/L Poecilia reticulata
EC50 48h - Crustacea	0.74 mg/l Daphnia magna
EC50 96h - Algae	1.1 mg/l Chlorella pyrenoidosa
NOEC chronic Crustacea	3.2 µg/L Daphnia magna

Persistence and degradability

28 days 2% degradation.
Not readily biodegradable.

Bioaccumulative potential

No bioconcentration data were located for zinc dibutyldithiocarbamate (SRC). However, BCFs of 90 and 4.7 were reported for analogous zinc dimethyldithiocarbamate using trout and guppies, respectively, which were exposed over a 2-week period. According to a classification scheme, these BCFs suggest the potential for bioconcentration in aquatic organisms is moderate(SRC), provided the compound is not metabolized by the organism(SRC). (HSDB)

Mobility in soil

Log Koc = 6.26 (QSAR)

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).

Endocrine disrupting properties

The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

Other adverse effects

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from residues/unused products: Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging: Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORTATION INFORMATION

UN-Number	
DOT	Not regulated
ADR, ADN, IMDG, IATA, RID	UN3077
UN proper shipping name	
DOT	N/A
ADR, ADN, IMDG, IATA, RID	3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE SOLID, N.O.S (Zinc dibutyl dithiocarbamate)
Transport hazard class(es)	
DOT	N/A
ADR, ADN, IMDG, IATA, RID	9
Packing group	
DOT	N/A
ADR, ADN, IMDG, IATA, RID	III
Environmental hazards	Marine Pollutant
Marine pollutant	Yes (fish and tree symbol)
Special Marking (ADR)	Fish and tree symbol
Special Marking (IATA)	Fish and tree symbol
Special precautions for user	Not data available
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code UN "Model Regulation"	Not applicable

15. REGULATORY INFORMATION

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

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

REACH Candidate List	Not listed
REACH XIV List	Not listed

Chemical safety assessment: A chemical safety assessment has 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