




Sovchem[®] ZDEC

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 [®] ZDEC Powder, Oiled Powder, Granules	Chemical Name: Zinc bis(diethylthiocarbamate)
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,  GHS08,  GHS09
Signal Word	: Warning
Hazard statements (CLP)	: H302 – Harmful if swallowed, Category 4 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 H362 – May cause harm to breast -fed children H373 - Causes damage to organs through prolonged or repeated exposure, Category 2 H400 - Very toxic to aquatic life, Category 1 H410 - Very toxic to aquatic life with long lasting effects, Category 1
Precautionary statements (CLP)	: P201 - Obtain special instructions before use P260 - Do not breathe dust/fume/gas/mist/vapors/spray P263 - Avoid contact during pregnancy/while nursing P308 + P313 - IF exposed or concerned: Get medical advice/attention P270 - Do not eat, drink or smoke when using this product P301+ P312 - IF SWALLOWED: call a POISON CENTER or doctor/physician IF you feel unwell P330 - Rinse mouth 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
 P314 - Get medical advice/attention if you feel unwell
 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 bis(diethyldithiocarbamate)	14324-55-1	238-270-9	≥ 97	H302 – Harmful if swallowed, Category 4 H315 – Causes skin irritation, Category 2 H317 – May cause an allergic skin reaction, Category 1

			<p>H319- Causes serious eye irritation, Category 2 H335 – May cause respiratory irritation, Category 3 H362 – May cause harm to breast -fed children H373 - Causes damage to organs through prolonged or repeated exposure, Category 2 H400 - Very toxic to aquatic life, Category 1 H410 - Very toxic to aquatic life with long lasting effects, Category 1</p>
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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 from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If symptoms persist, seek medical advice.
- 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 cautiously with water for several 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: Harmful if swallowed. Causes skin irritation. Causes serious eye irritation. May cause an allergic skin reaction. May cause respiratory irritation. May cause harm to breast-fed children. May cause damage to organs (liver, spleen) through prolonged or repeated exposure.

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.

5. FIRE FIGHTING MEASURES

Extinguishing media

Suitable extinguishing agents: Dry chemical, CO₂, water spray, foam.

Unsuitable extinguishing agents: No information available.

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.

Advice for firefighters

General: Do not stay in dangerous zone without self-contained breathing apparatus. In order to avoid contact with skin, keep a safety distance and wear suitable protective clothing. Do not allow run-off from fire-fighting to enter drains or water course.

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: Local authorities should be advised if significant spillages cannot be contained. Prevent entry into waterways, sewers, basements or confined areas.

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: Zinc bis(diethyldithiocarbamate): Nuisance Dust.
OSHA PEL/8Hr-TWA = 15 mg/m³ (Total Dust).
OSHA PEL/8-Hr TWA = 5 mg/m³ (Respirable Dust).
ACGIH TLV/8-Hr TWA = 10 mg/m³.
White Mineral Oil: OSHA PEL/8-Hr TWA = 5 mg/m³.
ACGIH TLV/8-Hr TWA = mg/m³.

Derived no effect level (DNEL):

Workers: Dermal, Systemic effects, Long term: 0.7 mg/kg bw/day

General Population: Inhalation, Systemic effects, Long term: 0.49 mg/m³
 Inhalation, Systemic effects, Long terms: 0.087 mg/m³
 Dermal, Systemic effects, Long term: 0.25 mg/kg bw/day
 Oral, Systemic effects, Long terms: 0.05 mg/kg bw/day

Predicted no effect concentration (PNEC):

Freshwater	0.064 µg/L
Marine water	0.006 µg/L
Intermittent releases	0.475 µg/L (freshwater)
STP	0.56 mg/L
Sediment (freshwater)	0.095 mg/kg sediment dw
Sediment (marine water)	0.009 mg/kg sediment dw
Soil	0.32 mg/kg soil dw
Oral	12 mg/kg food

Exposure controls

Engineering controls: Local exhaust ventilation as necessary to control any air contaminants to within their exposure limits during the use of this product. Adequate ventilation should be provided to keep dust concentrations below acceptable exposure limits. Discharge from the ventilation system should comply with the applicable air pollutions control regulations.

Personal protective equipment: Suitable protective clothing.

Eye protection: Sufficient eye protection must be worn. Wear chemical safety goggles.

Hand protection: Use protective gloves. The glove material must be sufficiently impermeable and resistant to the substance. Check the tightness before wear. Gloves should be well cleaned before being removed, then stored in a well-ventilated location. Pay attention to skin care.

Respiratory protection: In conditions where dust may be generated, wear a suitable dust mask.

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: 172-183 °C
Color: White to off-white	Boiling Point/Range: 301 °C
Odor: Slight	Odor threshold: Not determined
pH: Not determined	Flash point: Not available
Vapor Pressure: 0.007 Pa @ 25 °C	Flammability: Not available
Density at 20 °C: 1.48 g/cm ³	Ignition temperature: The substance is not undergoing spontaneous combustion up to 400 °C.
Relative density: Not available	Decomposition temperature: Not available
Solubility: Water: 1.06 mg/L	Partition coefficient (n-octanol/water): 3.11
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:	None under normal processing.
Conditions to avoid:	Heat, flames and sparks. Incompatible materials.
Incompatible materials:	Strong oxidizing agents.
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.

Zinc diethyl dithiocarbamate(CAS #: 14324-55-1)	
LD50 oral rat	1960 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: Genetic toxicity: no adverse effect observed (negative)
Genetic toxicity: no adverse effect observed (negative)

Carcinogenicity: No adverse effect observed NOAEL = 717mg/kg bw/day (chronic); (rat [common rodent species])

Reproductive toxicity: May cause harm to breast-fed children. Developmental toxicity: no adverse effect observed. NOAEL= 20mg/kg bw/day (subacute); (rabbit [other species])

STOT single exposure: May cause respiratory irritation. Affected organs: lungs
Route of exposure: inhalation.

STOT multiple exposure: May cause damage to organs through prolonged or repeated exposure. Target organs: pancreas ; liver ; spleen. NOAEL = 10mg/kg bw/day) (subchronic); (rat [common rodent species])

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 diethyl dithiocarbamate (CAS #: 14324-55-1)	
LC50 96h – Fish	0.23 mg/L <i>Oncorhynchus mykiss</i>
EC50 48h - Crustacea	0.24 mg/L <i>Daphnia magna</i>
EC50 96h - Algae	47.5 µg/L <i>Pseudokirchneriella subcapitata</i> .
NOEC chronic Crustacea	3.2 µg/L <i>Daphnia magna</i>

Persistence and degradability
Not readily biodegradable.

Bioaccumulative potential
Log Pow = 3.11

Mobility in soil
Log Koc: 4.17

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 diethyl 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	Not applicable
UN "Model Regulation"	

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%)	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