

# Sovchem<sup>®</sup> ZDEC

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION	
<b>Manufacturer</b> Sovereign Chemical Company 4040 Embassy Parkway, Suite 190 Akron, OH 44333	<b>Emergency Contact</b> Chemtrec: 1-800-424-9300 (continental USA) (1)703-527-3887 (outside continental USA)
<b>Trade Name(s):</b> Sovchem <sup>®</sup> ZDEC Powder, Oiled Powder, Granules	<b>Synonyms:</b> Zinc Diethyldithiocarbamate, ZDEC
<b>Chemical Name:</b> Zinc, bis (diethylcarbamidithioato-S-S')	
<b>Relevant identified uses of the substance or mixture and uses advised against:</b> No further relevant information available.	<b>Application of the substance/the preparation:</b> Chemical intermediate,
<b>Issued By:</b> Sovereign Chemical Company  According to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and GHS	<b>SDS Number:</b> 1785 <b>Date of Issue:</b> November 7, 2014 <b>Revision Number:</b> 5 (Supersedes: December 12, 2013) <b>Change(s):</b> Include zinc compound in SARA Section 313.

## 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

Acute Tox. 4

Skin Irrit. 2

Eye Irrit. 2

Skin Sens. 1

STOT SE 3

H302 Harmful if swallowed.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H335 May cause respiratory irritation.

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



Xn; Sensitizing

R42/43: May cause sensitization by inhalation and skin contact.



Xi; Irritant

R36/37/38: Irritating to eyes, respiratory system and skin.



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: Not applicable.

## 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: H400.

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 bis (diethyldithiocarbamate)

## Hazard statements

The following Hazard Statements are applicable only to the EU regulations and not the US GHS regulation: H400.

H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H317	May cause an allergic skin reaction
H335	May cause respiratory irritation.
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/protective clothing/eye protection/face protection.
P273	Avoid release to the environment.
P264	Wash thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P272	Contaminated work clothing should not be allowed out of the workplace.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321	Specific treatment (see on this label).
P362	Take off contaminated clothing and wash before reuse.
P301+P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
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.
P363	Wash contaminated clothing before reuse.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P330	Rinse mouth.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P391	Collect spillage.

P405 Store locked up.  
 P403+P233 Store in well-ventilated place. Keep container tightly closed.  
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Additional information: Contains zinc bis (diethyldithiocarbamate). May produce an allergic reaction.

Hazard description

WHMIS-symbols



D2A – Very toxic material causing other toxic effects.

NFPA ratings (scale 0-4)



Health = 2  
 Fire = 1  
 Reactivity = 0

HMIS ratings (scale 0-4)

HEALTH	2
FIRE	1
REACTIVITY	0

Health = 2  
 Fire = 1  
 Reactivity = 0

HMIS Long Term Health Hazard Substances: Substance is not listed.

2.3 Other hazards

Results of PBT and vPvB assessment

PBT: Not applicable.

vPvB: Not applicable.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

3.1 Substances



CAS No., Description: 14324-55-1, zinc bis (diethyldithiocarbamate)

Identification number(s)

EC Number: 238-270-9

Index number: 006-082-00-4

Dangerous components

CAS: 8042-47-5	White Mineral Oil	<5.0%
EINECS: 232-455-8	 Xn R65	
	 Asp. Tox. 1, H304	

**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 unconsciousness place patient stably in side 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

Gastric or intestinal disorders

Allergic reactions

Hazards: Danger of convulsion.

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.

If necessary, oxygen respiration treatment.

## 5. FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing agents

CO<sub>2</sub>, 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: Cool endangered receptacles with water spray.

## 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

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

Ensure adequate ventilation

Wear protective equipment. Keep unprotected persons away.

6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.

6.3 Methods and material for containment and cleaning up

Pick up mechanically.

Dispose contaminated material as waste according to item 13.

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

Thorough dedusting.

Prevent formation of dust.

Ensure good ventilation/exhaustion at the workplace.

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.

Information about storage in one common storage facility

Store away from oxidizing agents.

Do not store together with acids.

Store away from foodstuffs.

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

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

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.

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.

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.

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.

For the permanent contact gloves made of the following material are suitable

Butyl rubber, BR

Neoprene gloves

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: White.	Change in Condition Melting Point/Melting Range: Undetermined. Boiling Point/Boiling Range: Undetermined.
Odor: Characteristic.	Octanol/Water Partition Coefficient: Not determined.
Odor threshold: Not determined.	pH Value: Not applicable.
Vapor pressure: Not applicable.	Flash point: 302°F/150 °C.
Density at 20 °C: 1.48 g/cm <sup>3</sup> .	Flammability (solid, gaseous): Product is not flammable.
Relative density: Not determined.	Ignition temperature: Not determined.
Vapor density: Not applicable.	Decomposition temperature: Not determined.
Evaporation rate: Not applicable.	Self-igniting: Not determined.
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.	

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 oxidizing agents.

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

Reacts with strong acids.

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<sub>x</sub>)

Nitrogen oxides

Carbon monoxide and carbon dioxide.

### 11. TOXICOLOGICAL INFORMATION

#### 11.1 Information on toxicological effects

Acute toxicity

Primary irritant effect

On the skin: Irritant to skin and mucous membranes.

On the eye: Irritating effect.

Sensitization

Sensitization possible through skin contact.

Sensitizing effect through inhalation is possible by prolonged exposure.

Additional toxicological information

Danger through skin adsorption.

Irritant

Sensitization: Sensitization possible by inhalation and/or dermal contact.

Repeated dose toxicity

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

May cause damage to organs through prolonged or repeated exposure.

### 12. ECOLOGICAL INFORMATION

#### 12.1 Toxicity

Aquatic toxicity: Toxic for aquatic organisms.

12.2 Persistence and degradability: Moderately/partly biodegradable.

12.3 Bio-accumulative potential: No further relevant information available.

12.4 Mobility in soil: No further relevant information available.

Additional ecological information

**General notes**

This statement was deduced from products with a similar structure or composition.  
 The product contains heavy metals. Avoid transfer into the environment. Specific preliminary treatments are necessary.  
 Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water  
 Do not allow to reach ground water, water course or sewage system.  
 Danger to drinking water if even small quantities leak in to the ground.

**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

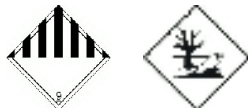
**14.2 UN proper shipping name**

DOT	Not regulated.
ADR	3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (zinc bis (diethyldithiocarbamate))
IMDG	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (zinc bis (diethyldithiocarbamate)), MARINE POLLUTANT
IATA	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (zinc bis (diethyldithiocarbamate))

**14.3 Transport hazard class(es)**

DOT Class	Not regulated.
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**ADR**



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

**IMDG, IATA**





Class  
Label



9 Miscellaneous dangerous substances and articles.  
9

14.4 Packing group

DOT  
ADR, IMDG, IATA

Not regulated.  
III

14.5 Environmental hazards

Marine pollutant

Product contains environmentally hazardous substances zinc bis (diethyldithiocarbamate)

No  
Symbol (fish and tree)

Special Marking (ADR)  
Special Marking (IATA)

Symbol (fish and tree)  
Symbol (fish and tree)

14.6 Special precautions for user

Danger code (Kemler)  
EMS Number

Warning: Miscellaneous dangerous substances and articles.  
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)  
Transport category  
Tunnel restriction code  
UN "Model Regulation"

5 kg  
3  
E  
UN3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE,  
SOLID, N.O.S. (zinc bis (diethyldithiocarbamate)), 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)	Substance is not listed.
SARA Section 313 (Specific toxic chemical listings)	Zinc Compound.
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%)	14324-55-1, zinc bis (diethylthiocarbamate)

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.
- 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)