SOVEREIGN CHEMICAL

Safety Data Sheet

# Sovchem® ZDiBC

| 1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION | |
|---|---|
| Manufacturer<br>Sovereign Chemical Company<br>1225 West Market Street<br>Akron, OH 44313 | Emergency Contact<br>Chemtrec: 1-800-424-9300 (USA)<br>(1)330-542-8400 (outside USA) |
| Trade Name(s): Sovchem® ZDiBC Powder | Synonyms: Isobutyl Zimate |
| Chemical Name: Zinc di-isobutyl dithiocarbamate | CAS Number: 136-23-2 |
| Relevant identified uses of the substance or mixture and uses advised against: No further relevant information available. | Application of the substance/the preparation:<br>Chemical intermediate. |
| Issued By: Sovereign Chemical Company<br><br>According to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and GHS | Date of Issue: November 1, 2018 |

## 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 | H400 Very toxic to aquatic life. |
| Aquatic Chronic 1 | H410 Very toxic to aquatic life with long lasting effects. |

GHS07

| | |
|---|---|
| Skin Irrit. 2 | H315 Causes skin irritation. |
| Eye Irrit. 2 | H319 Causes serious eye irritation. |
| Skin Sens. 1 | H317 May cause an allergic skin reaction. |
| STOT SE 3 | 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(dibutyldithiocarbamate)

Hazard statements

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

| | |
|---|---|
| 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 and eye protection. |
| P273 | Avoid release to the environment. |
| P264 | Wash thoroughly after handling. |
| P271 | Use only outdoors or in a well-ventilated area. |
| 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. |
| 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. |
| P302+P352 | IF ON SKIN: Wash with plenty of soap and water. |
| P391 | Collect spillage. |
| P405 | Store locked up. |
| P403+P233 | Store in a 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 (dibutyldithiocarbamate). May produce an allergic reaction.
Hazard description
WHMIS-symbols

D2A – Very 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

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: 136-23-2, zinc bis (dibutyldithiocarbamate)
Identification number(s)
EC Number: 205-232-8
Index number: 006-081-00-9
Dangerous components

| | | |
|---|---|---|
| CAS: 8042-47-5<br>EINECS: 232-455-8 | White Mineral Oil<br>Xn R65<br>Asp. Tox. 1, H304 | <2.5% |

## 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.
Danger of disturbed cardiac rhythm.

4.3 Indication of any immediate medical attention and special treatment needed
If swallowed, gastric irrigation with added, activated carbon.
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.
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: 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.
Use suitable respiratory protective device when high concentrations are present.
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<br>Form: Powder.<br>Color: White. | Change in Condition<br>Melting Point/Melting Range: Undetermined.<br>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: Not applicable. |
| Density at 20 °C: 1.27 g/cm³. | 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<br>Dynamic: Not applicable.<br>Kinematic: Not applicable. | Explosion limits<br>Lower: Not determined.<br>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 (SOx)
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 |

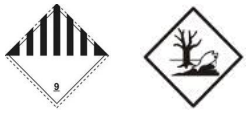
14.2 UN proper shipping name

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

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 | Not regulated |
| ADR, IMDG, IATA | III |

| | |
|---|---|
| 14.5 Environmental hazards | Product contains environmentally hazardous substances: zinc bis (dibutyldithiocarbamate) |
| Marine pollutant | 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. (zinc bis (dibutyldithiocarbamate)), 9, III |

## 15. REGULATORY INFORMATION

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

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|---|---|
| United States (USA) | |
| SARA Section 355 (extremely hazardous substances) | Substance is not listed. |
| SARA Section 313 (Specific toxic chemical listings) | Zinc Compounds. |
| 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%) | Substance is not 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.

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)