



Safety Data Sheet (SDS)

Revision 1/ Review Date: 3/1/16

1. Chemical Product and Company Identification

Product Name:	ZDBC
Distributed By:	HB Chemical 1665 Enterprise Parkway Twinsburg Oh 44087 Phone - 330-920-8023
MSDS Prepared By (w Suppliers Input):	HB Chemical
Chemical Name / Family:	Zinc bis(dibutyldithiocarbamate)
CAS No.	136-23-2
REACH	Not Available
Product Use:	Rubber Accelerator
OSHA Status	Hazardous

For emergency health, safety, and environmental information, calls 330-920-8023

For emergency transportation information, in the United States: call CHEMTREC at 800-424-9300

2. Hazard(s) Identification

Classification:

Classification according to Regulation (EC) NO 1272/2008: The following Hazard Statements are applicable only to the EU regulation 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.

Labeling according to Regulations (EC) No 1272/2008

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

Hazard Pictograms:



Signal Word(S):

Warning

Hazard Statement:

Causes skin irritation.
May cause an allergic skin reaction. Causes serious eye irritation. May cause respiratory irritation.
Very toxic to aquatic life with long lasting effects.

Precautionary statement:

Avoid breathing dust/fume/gas/mist/vapours/spray.
Wash hands thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment.
Wear protective gloves/protective clothing/eye protection/face protection.
IF ON SKIN: Wash with plenty of soap and water.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Call a POISON CENTER or doctor/physician if you feel unwell.
If skin irritation or rash occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
Take off contaminated clothing and wash before reuse.
Collect spillage. Store in a well-ventilated place. Keep container tightly closed. Store locked up.
Dispose of contents/container to local/regional/national/International regulation.

Other hazards:

Not available.

3. Composition / Information on Ingredients

Substance/Mixture:

Substance

Ingredient(s):

Chemical Name	Registration No .	CAS No.	EC No.	Concentration
Zinc bis(dibutyldithiocarbamate)	N/A	136-23-2	205-232-7	97%

4. First Aid Measures

Inhalation:

Remove from exposure and move to fresh air immediately. If Not breathing, give artificial respiration. If breathing is difficult, give Oxygen. Seek medical attention.

<u>Eyes:</u>	Immediately flush eyes with plenty of water for at least 15 minutes. Occasionally lifting the upper and lower eyelids. Get medical attention if irritation occurs.
<u>Skin:</u>	Immediately flush eyes with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.
<u>Ingestion:</u>	Rinse mouth, and drink plenty of water. Do not induce vomiting. Get medical aid
<u>Most important symptoms and effects, both Acute and delayed:</u>	Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May cause respiratory irritation.
<u>Indication of any immediate medical attention And special treatment needed:</u>	If skin irritation or rash occurs, get medical advice/attention.

5. Fire-Fighting Measures

Extinguishing media:

Suitable extinguishing media:

Water spray, foam, powder, carbon dioxide.

Unsuitable extinguishing media:

Not available.

Special hazards arising from the substance or mixture:

Hazardous decompositions products: carbon monoxide, carbon dioxide, nitrogen oxides, sulfur oxides.

Special fire fighting methods and special protective actions for fire-fighters:

Wear a self-contained breathing apparatus in pressure-demand MSHA/ NIOSH (approved or equivalent), and full protective gear.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel:

Use personal protective equipment Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation. Avoid skin and eye contact.

For emergency responders:

Wear an appropriate NIOSH/MSHA approved respirator if dust is generated.

Environmental Precautions:

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

Methods for Containment and Cleaning up:

Pick up and arrange disposal without creating dust. Sweep up And shovel. Keep in suitable, closed containers for disposal. Flush area with water.

<u>Reference to other sections:</u>	See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for information on disposal.
<u>Additional information:</u>	Not applicable.

<u>7. Handling and Storage:</u>	
<u>Precautions for safe handling:</u>	
<u>Protective measures:</u>	Use personal protective equipment. Avoid contact with skin and eyes. Avoid breathing dust. Provide appropriate exhaust ventilation at places where dust is formed. Wash hands thoroughly after handling.
<u>Advice on general occupational hygiene:</u>	Do not eat, drink and smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas.
<u>Conditions for safe storage, including any incompatibilities:</u>	Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials and food and drink. Keep container tightly closed and sealed until ready for use.
<u>Specific end use(s):</u>	Rubber accelerator.

<u>8. Exposure Controls / Personal Protection</u>	
<u>Control parameters:</u>	
<u>Occupational exposure limits:</u>	Not available.
<u>Additional exposure limits under the conditions of use:</u>	Not available.
<u>DNEL/DMEL and PNEC-Values:</u>	Not available.
<u>Exposure controls:</u>	
<u>Appropriate engineering controls:</u>	Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.
<u>Protective Gloves:</u>	Minimum breakthrough time / gloves: 480 min; Minimum thickness / gloves: 0.11 mm.
<u>Eye Protection:</u>	Wear tightly fitted safety goggles.
<u>Skin and Body Protection:</u>	Wear appropriate protective clothing and boots. Wear suitable protective clothing to prevent heat.

<u>Respiratory protection:</u>	Wear dust-protection mask if there is risk of dust formation.
<u>Environmental exposure controls:</u>	Avoid discharge into the environment. According to local regulation, federal and official regulations.

9. Physical and Chemical Properties

<u>Appearance:</u>	Granule
<u>Colour:</u>	White to Yellow
<u>Odour:</u>	Not available
<u>Odour threshold:</u>	Not available
<u>pH:</u>	Not available
<u>Melting point/range (°C):</u>	100-112 °C
<u>Boiling point/range (°C):</u>	318 °C (1013 hPa)
<u>Flash point (°C):</u>	Not available
<u>Evaporation rate:</u>	Not available
<u>Flammability limit - lower (%):</u>	Not available
<u>Flammability (solid, gas):</u>	Non-flammable
<u>Ignition temperature (°C):</u>	Not available
<u>Upper/lower flammability/explosive limits: Lower:</u>	Not available
<u>Vapour pressure (20°C):</u>	Not available
<u>Vapour density:</u>	Not available
<u>Relative Density:</u>	1.5(20°C)
<u>Bulk density (kg/m³):</u>	Not available
<u>Water solubility (g/l):</u>	<1 mg/L(20°C)
<u>n-Octanol/Water (log Po/w):</u>	Not available
<u>Auto-ignition temperature:</u>	Not available
<u>Decomposition temperature:</u>	Not available
<u>Viscosity, dynamic (mPa.s):</u>	Not available
<u>Explosive properties:</u>	Not explosive
<u>Oxidising properties:</u>	Not oxidising
<u>Molecular Formula:</u>	C ₁₈ H ₃₆ N ₂ S ₄ Zn
<u>Molecular Weight:</u>	474.14
<u>Other information:</u>	Fat solubility(solvent– oil to be specified)etc: Not available Surface tension: Not available Dissociation constant in water(pKa): Not available Oxidation-reduction Potential: Not available Specific gravity: 1.24(20°C)

10. Stability and Reactivity

<u>Reactivity/Stability:</u>	The substance is stable under normal storage and handling conditions. Stable at room temperature in closed containers under normal storage and handling conditions.
<u>Possibility of hazardous reactions:</u>	No dangerous reactions known.
<u>Incompatibility (Materials to Avoid):</u>	Strong oxidizing agents.
<u>Conditions to Avoid:</u>	Incompatible materials. Heat, high temperature.

Hazardous decomposition products:

Carbon monoxide, Carbon dioxide, nitrous oxides, sulfur oxides.

11. Toxicological Information

Toxicokinetics, metabolism and distribution:

Non-human toxicological data: Not available

Information on toxicological effects:

Acute toxicity: LD50(Oral, Rat): > 5000 mg/kg bw
LD50(Dermal, Rabbit): >2000 mg/kg bw
LC50(Inhalation, Rat): Not available

Skin corrosion/Irritation: Causes skin irritation

Serious eye damage/irritation: Causes serious eye irritation.

Respiratory or skin sensitization: Not classified

Germ cell mutagenicity: Not classified

Carcinogenicity: Not classified

Reproductive toxicity: Not classified

STOT- single exposure: May cause respiratory irritation.

STOT-repeated exposure: Not classified

12. Ecological Information

Toxicity:

Acute toxicity		Time	Species	Method	Evaluation	Remarks
LC50	N/A	96h	Fish	OECD 203	N/A	N/A
LC50	N/A	48h	Daphnia	OECD 202	N/A	N/A
EC50	N/A	72h	Algae	OECD 201	N/A	N/A

Persistence and degradability: Not available.

Bioaccumulative potential: Not available.

Mobility in soil: Not available.

Results of PBT&vPvB assessment: Not available.

Other adverse effects: Not available.

13. Disposal Considerations

HB Chemical 1665 Enterprise Parkway Twinsburg, Ohio 44087

Phone 330-920-8023 Fax 330-920-0971

www.hbchemical.com

<u>Waste treatment methods:</u>	The material should be disposed of by incineration in a chemical incinerator in compliance with national and regional requirements.
<u>Product/packaging disposal:</u>	If empty container retains product residues, all label precautions must be observed. Return for reuse or dispose according to national and local regulations.

14. Transport Information

<u>D.O.T. Shipping Name</u>	Not Regulated
<u>Air - ICAO (international Civil Aviation Organization)</u>	UN Number: 3077 UN Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.,(Zinc bis(dibutyldithiocarbamate)) Class: 9 Packaging group: III Environmental hazards: Yes
<u>Sea - IMDG (International Maritime Dangerous Goods)</u>	UN Number: 3077 UN Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.,(Zinc bis(dibutyldithiocarbamate)) Class: 9 Packaging group: III Environmental hazards: Yes

15. Regulatory Information

Safety, health and environmental regulation/legislation specific for the substance or mixture United States

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)	
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.

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16. Other Information

The above information has been compiled from what we believe to be credible sources. To our knowledge the information is accurate and reliable, however, it is not guaranteed. Any recommendations issued by HB Chemical personnel or literature is derived from experience and by no means should be taken as fact or construed as a recommendation to violate of any law, regulation or patent. It is the users responsibility to determine the suitability of any HB supplied material in their application. The individual conditions of each customer are well outside of our control and we cannot be held liable for its functionality and use.

HB Chemical 1665 Enterprise Parkway Twinsburg, Ohio 44087

Phone 330-920-8023 Fax 330-920-0971

www.hbchemical.com

Please contact our office should you need specific information beyond what is supplied above. As with all Chemical usage safety precautions beyond the stated are highly recommended.