SDS

SAFETY DATA SHEET

Oakwood Products, Inc
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Estill, SC 29918
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Phone Numbers:

Product Information	803-739-8800
Transportation Emergency	800-451-8346
Outside the USA	760-602-8700

MATERIAL IDENTIFICATION

NAME: Zinc dimethyldithiocarbamate
CAS#: [137-30-4]
CAT#: 097597
For R&D use only.

HAZARDS IDENTIFICATION

GHS Classification
Acute toxicity, oral (Category 4)
Sensitisation, Skin (Category 1)
Serious eye damage/eye irritation (Category 1)
Acute toxicity, inhalation (Category 1)
Respiratory tract irritation (Category 3)
Specific target organ toxicity, single exposure (Category 2)
Hazardous to the aquatic environment, long-term hazard (Category 1)

GHS Label elements, including precautionary statements

Pictograms

Signal Word Danger

Hazard Statement(s)

H302	Harmful if swallowed
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H330	Fatal if inhaled
H335	May cause respiratory irritation
H373	Causes damage to organs through prolonged or repeated exposure
H410	Very toxic to aquatic life with long lasting effects

Precautionary Statement(s)

P260	Do not breathe dust/fume/gas/mist/vapours/spray.

P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P284	Wear respiratory protection.
P301 + P330 + P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302 + P352	IF ON SKIN: wash with plenty of soap and water.
P304 + P340	IF INHALED: Remove victim to fresh air and Keep at rest in a position comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor/physician.

COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms	:	Ziram, Dimethyldithiocarbamic acid zinc salt
Formula	:	C8H20N2S4Zn
Molecular Weight	:	337.89 g/mol

CAS	Description	Concentration
137-30-4	Zinc dimethyldithiocarbamate	99%

FIRST AID MEASURES

In case of eye contact
Immediately flush eyes with running water for at least 15 minutes while keeping eyes open. Seek medical attention.

In case of skin contact
Wash thoroughly with soap and plenty of water. Seek medical attention.

If inhaled
Remove victim from source of exposure to fresh air. If breathing is difficult, administer oxygen. Seek medical attention.

If swallowed
Do not induce vomiting. Give water to victim to drink. Seek medical attention.

FIRE-FIGHTING MEASURES

Suitable extinguishing media
Use carbon dioxide, dry chemical powder, alcohol-resistant or polymer foam.

Special protective equipment for fire-fighters
Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Unusual fire and explosion hazards/decomposition of product
emits toxic fumes under fire conditions.

ACCIDENTAL RELEASE MEASURES

Personal precautions
Use personal protective equipment. Avoid breathing fumes, vapors, mists or gas. Ventilate area. Remove all sources of ignition. Evacuate personnel.

Environmental precautions
Prevent further leakage if safe to do so.

Methods and materials for containment and clean up
Absorb spills on sand or vermiculite and place in closed container for disposal.

HANDLING AND STORAGE

Precautions for safe handling
Avoid prolonged use. Avoid all direct contact with material. Do not breathe dust or vapor. Wash thoroughly after handling.

Precautions for safe storage
Keep container tightly closed. Store in a cool, dry, well-ventilated area.
Air sensitive

EXPOSURE CONTROL/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

Eye/face protection
Wear protective safety goggles or face shields tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Hand/skin protection
Avoid all direct contact with product.
Wear chemical-resistant gloves.
Wear protective clothing and boots.
After contact with skin, wash immediately.

Respiratory protection
Ensure adequate ventilation during use. Approved respiratory equipment must be used when airborne concentrations are unknown or exceed the exposure limits.

PHYSICAL AND CHEMICAL PROPERTIES

Appearance	White powder
Odour	no data available
Odour Threshold	no data available
Melting point/Freezing Point	248-257°C
Boiling Point	no data available
Flash Point	no data available
Evaporation Rate	no data available
Flammability (solid, gas)	no data available
Upper/Lower Flammability or Explosive limits	no data available
Vapour pressure	no data available

Relative Density	no data available
Solubility(ies)	no data available
Partition coefficient: n-octanol/water	no data available
Auto-ignition temperature	no data available
Decomposition temperature	no data available
Viscosity	no data available
Refractive Index	no data available

STABILITY AND REACTIVITY

Chemical stability
Stable under recommended storage conditions.

Possibility of hazardous reactions
no data available

Conditions to avoid
Air.

Incompatible materials
And strong acids.

Hazardous decomposition products
May evolve carbon monoxide, carbon dioxide, nitrogen oxides, and sulfur oxides.

TOXICOLOGICAL INFORMATION

Acute toxicity

Oral LD50
Rat - male and female - 320 mg/kg

Inhalation LC50
Rat - 2 h - 26 mg/m3

Dermal LD50
Rabbit - male and female - > 2,000 mg/kg

Other information on acute toxicity
Repeated dose toxicity - rat - male and female - Oral - No observed adverse effect level - < 7.4 mg/kg - Lowest
observed adverse effect level - 7.4 mg/kg

Skin corrosion/irritation
Rabbit - No irritation - 4 h

Serious eye damage/eye irritation
Rabbit - Risk of serious damage to eyes.

Respiratory or skin sensitization
in vivo assay- guinea pig - May cause sensitisation by skin contact.

Germ cell mutagenicity
mouse

lymphocyte
Mutation in mammalian somatic cells.
Hamster
ovary
Result: negative
Mutagenicity (micronucleus test)
mouse - male and female
Result: negative

Carcinogenicity
Rat - Oral
Tumorigenic:Neoplastic by RTECS criteria. Liver:Tumors. Skin and Appendages: Other: Tumors.
Mouse - Oral
Tumorigenic:Equivocal tumorigenic agent by RTECS criteria. Lungs, Thorax, or Respiration:Tumors.
Rat - Implant
Tumorigenic:Equivocal tumorigenic agent by RTECS criteria. Liver:Tumors. Skin and Appendages: Other: Tumors.
Rat - Oral
Tumorigenic:Carcinogenic by RTECS criteria. Endocrine:Thyroid tumors. Skin and Appendages: Other: Tumors.

Reproductive toxicity
Rat - Oral
Effects on Fertility: Pre-implantation mortality (e.g., reduction in number of implants per female; total number of implants per corpora lutea).
Rat - Oral
Effects on Fertility: Post-implantation mortality (e.g., dead and/or resorbed implants per total number of implants).
Specific Developmental Abnormalities: Musculoskeletal system.
Developmental Toxicity - rat - Oral
Specific Developmental Abnormalities: Cardiovascular (circulatory) system.
Developmental Toxicity - rat - Oral
Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).

STOT-single exposure
May cause respiratory irritation

STOT-repeated exposure
Causes damage to organs through prolonged or repeated exposure

Aspiration hazard
no data available

Exposure Routes
Harmful to skin, eyes, and respiratory system.
May be toxic if inhaled or swallowed.

Target Organs
Respiratory system, Liver, Blood
Stomach - Irregularities - Based on Human Evidence

Additional Information
RTECS: ZH0525000

To the best of our knowledge, the health hazards of this material have not been fully investigated.

ECOLOGICAL INFORMATION

Toxicity
Toxicity to fish:
flow-through test LC50 - Lepomis macrochirus (Bluegill) - 0.0097 mg/l - 96 h
Toxicity to daphnia and other aquatic invertebrates:
static test EC50 - Daphnia magna (Water flea) - 0.048 mg/l - 48 h
Toxicity to algae:
static test EC50 - Pseudokirchneriella subcapitata (Selenastrum capricornutum) - ca. 0.5 mg/l - 72 h
Toxicity to bacteria:
Respiration inhibition EC50 - Sludge Treatment - 19.2 mg/l - 3 h

Persistence and degradability
no data available

Bioaccumulative potential
no data available

Mobility in soil
no data available

PBT and vPvB assessment
no data available

Other adverse effects
no data available

DISPOSAL CONSIDERATIONS

Dissolve in or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all Federal, State and local laws.

TRANSPORT INFORMATION

DOT
Toxic solids, organic, n.o.s.
6.1
UN2811 II
Reportable Quantity (RQ): 10 lbs

IMDG
Toxic solid, organic, n.o.s.
6.1
UN2811 II
EMS-No: F-A, S-A
Marine Pollutant: No

IATA
Toxic solid, organic, n.o.s.
6.1
UN2811 II

REGULATORY INFORMATION

SARA 302 Components
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III,

Section 302.

SARA 313 Components
SARA 313: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 313.

New Jersey Right to Know Components
This product contains a chemical on the New Jersey Right to Know Components List.

	CAS
Zinc dimethyldithiocarbamate	137-30-4

California Prop. 65 Components
This product does not contain a chemical known to the State of California to cause cancer, birth defects, or other reproductive harm.

OTHER INFORMATION

Version : 1.4

Revision Date : 10/6/2017

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. Oakwood shall not be held liable for any damage resulting from handling or from contact with the above product.