

## Material Safety Data Sheet

Version 4.2

Revision Date 01/19/2012

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1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Zinc sulfide

Product Number : 244627

Brand : Aldrich

Supplier : Sigma-Aldrich  
3050 Spruce Street  
SAINT LOUIS MO 63103  
USA

Telephone : +1 800-325-5832

Fax : +1 800-325-5052

Emergency Phone # (For both supplier and manufacturer) : (314) 776-6555

Preparation Information : Sigma-Aldrich Corporation  
Product Safety - Americas Region  
1-800-521-8956

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2. HAZARDS IDENTIFICATION

## Emergency Overview

## OSHA Hazards

No known OSHA hazards

## GHS Classification

Acute toxicity, Dermal (Category 5)

Acute toxicity, Oral (Category 5)

## GHS Label elements, including precautionary statements

Pictogram none

Signal word Warning

Hazard statement(s)

H303 + H313 May be harmful if swallowed or in contact with skin.

Precautionary statement(s)

P312 Call a POISON CENTER or doctor/ physician if you feel unwell.

## HMIS Classification

Health hazard: 1

Flammability: 0

Physical hazards: 0

## NFPA Rating

Health hazard: 0

Fire: 0

Reactivity Hazard: 0

## Potential Health Effects

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.

Skin May be harmful if absorbed through skin. May cause skin irritation.

Eyes May cause eye irritation.

Ingestion May be harmful if swallowed.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula : SZn  
Molecular Weight : 97.46 g/mol

No ingredients are hazardous according to OHSA criteria.

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### 4. FIRST AID MEASURES

#### **General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance.

#### **If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### **In case of skin contact**

Wash off with soap and plenty of water. Consult a physician.

#### **In case of eye contact**

Flush eyes with water as a precaution.

#### **If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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### 5. FIREFIGHTING MEASURES

#### **Conditions of flammability**

Not flammable or combustible.

#### **Suitable extinguishing media**

Dry powder

#### **Special protective equipment for firefighters**

Wear self contained breathing apparatus for fire fighting if necessary.

#### **Hazardous combustion products**

Hazardous decomposition products formed under fire conditions. - Sulphur oxides, Zinc/zinc oxides

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### 6. ACCIDENTAL RELEASE MEASURES

#### **Personal precautions**

Wear respiratory protection. Avoid dust formation. Avoid breathing vapors, mist or gas. Avoid breathing dust.

#### **Environmental precautions**

No special environmental precautions required.

#### **Methods and materials for containment and cleaning up**

Pick up and arrange disposal without creating dust. Sweep up and shovel. Do not flush with water. Keep in suitable, closed containers for disposal.

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### 7. HANDLING AND STORAGE

#### **Precautions for safe handling**

Provide appropriate exhaust ventilation at places where dust is formed.

#### **Conditions for safe storage**

Keep container tightly closed in a dry and well-ventilated place.

Never allow product to get in contact with water during storage. Do not store near acids.

Air and moisture sensitive. Keep in a dry place.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

### Personal protective equipment

#### Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

#### Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

#### Eye protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

#### Skin and body protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

#### Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Appearance

|        |        |
|--------|--------|
| Form   | powder |
| Colour | beige  |

### Safety data

|                                        |                                        |
|----------------------------------------|----------------------------------------|
| pH                                     | no data available                      |
| Melting point/freezing point           | no data available                      |
| Boiling point                          | no data available                      |
| Flash point                            | not applicable                         |
| Ignition temperature                   | no data available                      |
| Autoignition temperature               | no data available                      |
| Lower explosion limit                  | no data available                      |
| Upper explosion limit                  | no data available                      |
| Vapour pressure                        | no data available                      |
| Density                                | 4.1 g/cm <sup>3</sup> at 25 °C (77 °F) |
| Water solubility                       | no data available                      |
| Partition coefficient: n-octanol/water | no data available                      |
| Relative vapour density                | no data available                      |
| Odour                                  | no data available                      |
| Odour Threshold                        | no data available                      |

Evaporation rate          no data available

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## 10. STABILITY AND REACTIVITY

### Chemical stability

Stable under recommended storage conditions.

### Possibility of hazardous reactions

no data available

### Conditions to avoid

Air sensitive.

### Materials to avoid

Strong oxidizing agents, Strong acids

### Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Sulphur oxides, Zinc/zinc oxides

Other decomposition products - no data available

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## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

#### Oral LD50

LD50 Oral - rat - > 2,000 mg/kg

#### Inhalation LC50

no data available

#### Dermal LD50

LD50 Dermal - rat - > 2,000 mg/kg

#### Other information on acute toxicity

no data available

### Skin corrosion/irritation

no data available

### Serious eye damage/eye irritation

no data available

### Respiratory or skin sensitization

no data available

### Germ cell mutagenicity

no data available

### Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

### Reproductive toxicity

no data available

### Teratogenicity

no data available

**Specific target organ toxicity - single exposure (Globally Harmonized System)**

no data available

**Specific target organ toxicity - repeated exposure (Globally Harmonized System)**

no data available

**Aspiration hazard**

no data available

**Potential health effects**

|                   |                                                                     |
|-------------------|---------------------------------------------------------------------|
| <b>Inhalation</b> | May be harmful if inhaled. May cause respiratory tract irritation.  |
| <b>Ingestion</b>  | May be harmful if swallowed.                                        |
| <b>Skin</b>       | May be harmful if absorbed through skin. May cause skin irritation. |
| <b>Eyes</b>       | May cause eye irritation.                                           |

**Signs and Symptoms of Exposure**

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**Synergistic effects**

no data available

**Additional Information**

RTECS: ZH5400000

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**12. ECOLOGICAL INFORMATION****Toxicity**

Toxicity to fish                      LC50 - Pimephales promelas (fathead minnow) - 1,826 mg/l - 96 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

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**13. DISPOSAL CONSIDERATIONS****Product**

Offer surplus and non-recyclable solutions to a licensed disposal company.

**Contaminated packaging**

Dispose of as unused product.

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**14. TRANSPORT INFORMATION****DOT (US)**

Not dangerous goods

**IMDG**

Not dangerous goods

**IATA**

Not dangerous goods

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**15. REGULATORY INFORMATION**

**OSHA Hazards**

No known OSHA hazards

**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**

The following components are subject to reporting levels established by SARA Title III, Section 313:

|               |                      |                             |
|---------------|----------------------|-----------------------------|
| Zinc sulphide | CAS-No.<br>1314-98-3 | Revision Date<br>2007-07-01 |
|---------------|----------------------|-----------------------------|

**SARA 311/312 Hazards**

No SARA Hazards

**Massachusetts Right To Know Components**

No components are subject to the Massachusetts Right to Know Act.

**Pennsylvania Right To Know Components**

|               |                      |                             |
|---------------|----------------------|-----------------------------|
| Zinc sulphide | CAS-No.<br>1314-98-3 | Revision Date<br>2007-07-01 |
|---------------|----------------------|-----------------------------|

**New Jersey Right To Know Components**

|               |                      |                             |
|---------------|----------------------|-----------------------------|
| Zinc sulphide | CAS-No.<br>1314-98-3 | Revision Date<br>2007-07-01 |
|---------------|----------------------|-----------------------------|

**California Prop. 65 Components**

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

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**16. OTHER INFORMATION****Further information**

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