



## Material Safety Data Sheet

### Zinc sulfate, heptahydrate, ACS

#### Section 1 - Chemical Product and Company Identification

**MSDS Name:**

Zinc sulfate, heptahydrate, ACS

**Catalog Numbers:**

LC27220

**Synonyms:**

White vitriol; zinc vitriol.

**Company Identification:**

LabChem, Inc.  
200 William Pitt Way  
Pittsburgh, PA 15238

**Company Phone Number:**

(412) 826-5230

**Emergency Phone Number:**

(800) 424-9300

**CHEMTREC Phone Number:**

(800) 424-9300

#### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	Percent
7446-20-0	Zinc sulfate, heptahydrate	100%

#### Section 3 - Hazards Identification

##### Emergency Overview

**Appearance:** *White crystals*

**Warning!** Causes severe eye irritation and possible eye injury. Causes skin and respiratory tract irritation. May be harmful if swallowed. Very toxic to aquatic organisms.

**Target Organs:** Respiratory system, eyes, skin.

##### Potential Health Effects

**Eye:**

Contact may cause severe eye irritation and possible eye damage.

**Skin:**

Causes skin irritation.

**Ingestion:**

May cause irritation of the digestive tract. May be harmful if swallowed.

**Inhalation:**

Dust is irritating to the respiratory tract. May be harmful if inhaled.

**Chronic:**

No information found.



## Material Safety Data Sheet Zinc sulfate, heptahydrate, ACS

### Section 4 - First Aid Measures

**Eyes:**

Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids until no evidence of chemical remains. Get medical aid at once.

**Skin:**

Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid.

**Ingestion:**

Do not induce vomiting. Get medical aid at once.

**Inhalation:**

Give artificial respiration if necessary. Move victim to fresh air. Keep victim warm and at rest. Get medical aid at once.

**Notes to Physician:**

Treat symptomatically and supportively.

### Section 5 - Fire Fighting Measures

**General Information:**

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

**Extinguishing Media:**

For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam.

**Autoignition Temperature:**

No information found.

**Flash Point:**

No information found.

**NFPA Rating:**

Health-2; flammability-0; reactivity-0

**Explosion Limits:**

Lower: n/a Upper: n/a

### Section 6 - Accidental Release Measures

**General Information:**

Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:**

Vacuum or sweep up material and place into a suitable disposal container. Avoid generating dusty conditions. Provide ventilation. This material is a water pollutant and should not be emptied into drains.

### Section 7 - Handling and Storage



## Material Safety Data Sheet Zinc sulfate, heptahydrate, ACS

### Handling:

Wash thoroughly after handling. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Avoid breathing dust.

### Storage:

Store tightly closed at room temperature. Protect from heat and incompatibles.

## Section 8 - Exposure Controls, Personal Protection

### Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

### Exposure Limits:

Chemical Name:	ACGIH	NIOSH	OSHA
Zinc sulfate, heptahydrate	none listed	none listed	none listed

### OSHA Vacated PELs:

Zinc sulfate, heptahydrate: No OSHA Vacated PELs are listed for this chemical.

## Personal Protective Equipment

### Eyes:

Do not wear contact lenses when working with chemicals. Wear appropriate protective eyeglasses or chemical safety goggles as described in 29 CFR 1910.133.

### Skin:

Wear appropriate protective gloves to prevent skin exposure.

### Clothing:

Wear appropriate protective clothing to prevent skin exposure.

### Respirators:

Follow the OSHA respirator regulations found in 29 CFR 1910.134 and ANSI Z88.2. Use a NIOSH/MSHA approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

## Section 9 - Physical and Chemical Properties

<b>Physical State:</b>	Crystals
<b>Color:</b>	White
<b>Odor:</b>	Odorless
<b>pH:</b>	4.4-6 (5% aq soln)
<b>Vapor Pressure:</b>	Not available
<b>Vapor Density:</b>	Not available
<b>Evaporation Rate:</b>	Negligible
<b>Viscosity:</b>	Not available
<b>Boiling Point:</b>	Not available
<b>Freezing/Melting Point:</b>	100°C
<b>Decomposition Temperature:</b>	> 500°C
<b>Solubility in water:</b>	Soluble
<b>Specific Gravity/Density:</b>	3.54 g/cm <sup>3</sup> @ 25°C
<b>Molecular Formula:</b>	ZnSO <sub>4</sub> ·7H <sub>2</sub> O



## Material Safety Data Sheet Zinc sulfate, heptahydrate, ACS

Molecular Weight: 287.55

### Section 10 - Stability and Reactivity

**Chemical Stability:**

Stable under normal temperatures and pressures. Efflorescent (tending to lose water molecules of hydration) in dry air.

**Conditions to Avoid:**

High temperatures.

**Incompatibilities with Other Materials:**

Strong bases.

**Hazardous Decomposition Products:**

Oxides of sulfur, toxic fumes of zinc oxide.

**Hazardous Polymerization:**

Has not been reported.

### Section 11 - Toxicological Information

**RTECS:**

CAS# 7446-20-0: ZH5300000

**LD50/LC50:**

CAS# 7446-20-0:

Oral, mouse: LD50 = 200 mg/kg;

Oral, rat: LD50 = 1260 mg/kg

**Carcinogenicity:**

CAS# 7446-20-0: Not listed by ACGIH, IARC, NTP, or CA Proposition 65.

**Epidemiology:**

No information available.

**Teratogenicity:**

No information available.

**Reproductive:**

No information available.

**Mutagenicity:**

No information available.

**Neurotoxicity:**

No information available.

### Section 12 - Ecological Information

**Ecotoxicity:**

No information available.

**Environmental:**

Very toxic to aquatic organisms.



**Material Safety Data Sheet**  
**Zinc sulfate, heptahydrate, ACS**

**Section 13 - Disposal Considerations**

Dispose of in accordance with Federal, State, and local regulations.

**Section 14 - Transport Information**

**US DOT**

**Shipping Name:** Not regulated.

**Hazard Class:**

**UN Number:**

**Packing Group:**

**Section 15 - Regulatory Information**

**US Federal**

**TSCA:**

CAS# 7446-20-0 is not on the TSCA Inventory because it is a hydrate. It is considered to be listed if the CAS number for the anhydrous form is on the inventory (40CFR720.3(u)(2)).

**SARA Reportable Quantities (RQ):**

None.

**CERCLA/SARA Section 313:**

This material contains Zinc sulfate, heptahydrate (listed as Zinc compounds), 99%, (CAS# 7446-20-0) which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

**OSHA - Highly Hazardous:**

Not considered highly hazardous by OSHA.

**US State**

**State Right to Know:**

CAS# 7446-20-0 can be found on the following state right to know lists: California, (listed as Zinc compounds), Pennsylvania, (listed as Zinc compounds).

**California Regulations:**

Not listed.

**European/International Regulations**

**Canadian DSL/NDSL:**

CAS# 7446-20-0 is listed on Canada's DSL List.

**Canada Ingredient Disclosure List:**

CAS# 7446-20-0 is not listed on the Canadian Ingredient Disclosure List.

**Section 16 - Other Information**

MSDS Creation Date: October 11, 2006

Revision Date: None



**Material Safety Data Sheet**  
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