SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name	Zinc Sulfate Heptahydrate
CAS number	7446-20-0
Synonyms	Zinc vitriol; Salt of vitriol; White vitriol

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses	Laboratory Chemicals

1.3 Details of the supplier of the safety data sheet

Company	Lab Alley, LLC 12501 Pauls Valley Road Austin, Texas 78737 U.S.A.
Telephone	512-668-9918
Fax	512-886-4008

1.4 Emergency telephone

Emergency Phone #	US & Canada: 1-800-535-5053	INFOTRAC
	International 1-352-323-3500	INFOTRAC

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute Oral Toxicity Category 4
Serious Eye Damage/Eye Irritation Category 1
Specific Target Organ Toxicity (repeated exposure) Category 2
Target Organ(s) - Heart, Blood

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal Word: Danger

Hazard statements:
H318 Causes serious eye damage.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements:
Prevention:
P273 Avoid release to the environment.
P280 Wear eye protection/ face protection.
Response:
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.
P391 Collect spillage.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

Corrosive to the respiratory tract.

SECTION 3: Composition/information on ingredients

3.1 Components

Chemical name	Common name and synonyms	CAS number	Concentration
Zinc Sulfate heptahydrate	-	7446-20-0	100%

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

If inhaled: Remove to fresh air.

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

In case of eye contact	Rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.
If swallowed	Immediately make victim drink water (two glasses at most). Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

4.3 Indication of any immediate medical attention and special treatment needed

No information available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	For this substance/mixture no limitations of extinguishing agents are given.

5.2 Specific hazards arising from the substance or mixture

Keep product and empty container away from heat and sources of ignition. Containers may explode when heated. Thermal decomposition can lead to release of irritating gases and vapors. Do not allow run-off from fire-fighting to enter drains or water courses. Hazardous Combustion Products: Sulfur oxides.

5.3 Special protective equipment and precautions for firefighters

Sulphur oxides. Ambient fire may liberate hazardous vapours.

5.4 Further information

Flash Point No information available.

Autoignition Temperature No information available.

Explosion limits

Upper No information available.
Lower No information available.

Sensitivity to Mechanical Impact No information available.

Sensitivity to Static Discharge No information available.

NFPA

Health	Flammability	Instability	Physical hazards
2	0	0	N/A

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel:
Do not breathe vapours, aerosols.
Avoid substance contact.
Ensure adequate ventilation.
Evacuate the danger area, observe emergency procedures, consult an expert.
Advice for emergency responders:
For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills.
Observe possible material restrictions (see sections 7 and 10).
Take up with liquid-absorbent and neutralising material (e.g. Chemizorb® H^+, Merck Art. No. 101595). Dispose of properly. Clean up affected area.

6.4 Reference to other sections

For precautions see section 2.2.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid dust formation.
Do not breathe dust. Avoid contact with eyes, skin, or clothing.

Hygiene measures

Change contaminated clothing. Wash hands after working with substance.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Recommended storage temperature see product label.

Incompatibilities

Strong bases.

SECTION 8: Exposure controls/personal protection

8.1 Occupational exposure limits

Contains no substances with occupational exposure limit values.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)
No information available.

US. ACGIH Threshold Limit Values
No information available.

US. NIOSH: Pocket Guide to Chemical Hazards
No information available.

Biological occupational exposure limits
No information available.

8.2 Exposure controls

Appropriate engineering controls
No data available

Personal protective equipment

Eye/face protection
Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
Tightly fitting safety goggles

Skin protection
Wear protective clothing.

Body Protection
Wear protective clothing.

Respiratory protection
Required when vapours/aerosols are generated.

Control of environmental exposure
Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State	Solid
Appearance	White

Odor	Odorless
Odor Threshold	No information available.
pH	4.4 - 6 (5% aq.solution)
Melting Point/Range	100 °C / 212 °F
Boiling Point/Range	No information available.
Evaporation Rate	No information available.
Flammability (solid)	No information available.
Flammability or explosive limit	No information available.
Upper	No information available.
Lower	No information available.
Vapor Pressure	No information available.
Vapor Density	No information available.
Density	3.54 @ 25 °C
Solubility	soluble (68 °F / 20 °C)
Partition coefficient; n-octanol/water	No information available.
Autoignition Temp	No information available.
Decomposition Temp	500°C
Viscosity	No information available.
Molecular Formula	O4SZn.7H2O
Molecular Weight	287.53 g/mol
VOC Content(%)	No information available.
Oxidizing properties	No information available.

9.2 Other safety information No information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

No information available.

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

10.3 Possibility of hazardous reactions

The generally known reaction partners of water.
Violent reactions possible with: The generally known reaction partners of water.

10.4 Conditions to avoid

No information available.

10.5 Incompatible materials

Metals

10.6 Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Product Information, Component Information

Acute toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Zinc Sulfate heptahydrate	1260 mg/kg (Rat)	-	-

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

Remarks: Mixture causes serious eye damage.

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

Component	CAS	IARC	NTP	ACGIH	OSHA	Mexico
Zinc Sulfate heptahydrate	7446-20-0	Not listed	Not listed	Not listed	Not listed	Not listed

Specific target organ toxicity - single exposure

No information available.

Specific target organ toxicity - repeated exposure

No information available.

Reproductive toxicity

No information available.

Chronic effects

No information available.

11.2 Additional Information

Other dangerous properties can not be excluded.
Handle in accordance with good industrial hygiene and safety practice.

SECTION 12: Ecological information

12.1 Toxicity

Component		Species	Test Results
Zinc Sulfate heptahydrate	LC50	Freshwater fish	1.9ml, 96h

12.2 Persistence and degradability

No information available.

12.3 Bio accumulative potential

No information available.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

No information available.

12.6 Endocrine disrupting properties

No information available.

12.7 Other adverse effects

Discharge into the environment must be avoided.

SECTION 13: Disposal considerations

13.1 Waste Disposal Methods

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

SECTION 14: Transport information

DOT (US)

UN Number	UN 3077
Proper Shipping name	Environmentally hazardous substances, solid, n.o.s.
Hazard Class	9
Packaging Group	III
Technical name	Zinc Sulfate Heptahydrate

IMDG

UN Number	UN 3077
Proper Shipping name	Environmentally hazardous substances, solid, n.o.s.
Hazard Class	9
Packaging Group	III
Technical name	Zinc Sulfate Heptahydrate

IATA

UN Number	UN 3077
Proper Shipping name	Environmentally hazardous substances, solid, n.o.s.
Hazard Class	9
Packaging Group	III
Technical name	Zinc Sulfate Heptahydrate

SECTION 15: Regulatory information

US federal regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
No substances are subject to TSCA 12(b) export notification requirements.

CERCLA Hazardous Substance List (40 CFR 302.4)
Listed (ZINC SULFATE), Hazardous Substances RQs: 1000 lb

SARA 304 Emergency release notification
Not listed/applicable.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)
Not listed/applicable.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

SARA 302 Extremely hazardous substance
Not listed/applicable.

SARA 311/312 Hazardous
Not listed/applicable.

SARA 313 (TRI reporting)
Listed (ZINC SULFATE HEPTAHYDRATE).
Listed (ZINC SULFATE).

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
Not listed/applicable.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
Not listed/applicable.

Safe Drinking Water Act
Listed (ZINC SULFATE) Hazardous Substances. Reportable Quantities: 1000 lb. Toxic Pollutants.
Listed (ZINC SULFATE HEPTAHYDRATE) Toxic Pollutants.

FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace
Not listed/applicable.

US state regulations

US. Massachusetts RTK - Substance List
Listed.

US. New Jersey Worker and Community Right-to-Know Act
Listed.

US. Pennsylvania Worker and Community Right-to-Know Law
Listed.

California Proposition 65
Not listed.

SECTION 16: Other information

Date of Issue: 10/10/2025
Revision Date: 10/30/2026

SECTION 17: Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.