Doc. # ZnSO₄-MSDS-05Rev. # 00Effective Date: 01.01.2019

Title:

MATERIAL SAFETY DATA SHEET (MSDS)
ZINC SULPHATE**Section 1: Chemical Product and Company Identification**

Product Name: Ittehad Crystal Zinc 21%, Ittehad Zinc 33% **Contact Information:** ITTEHAD CHEMICALS LIMITED
G.T.ROAD, KALA SHAH KAKU

Chemical Name: Zinc Sulphate Heptahydrate, **Web:** www.ittehadchemicals.com/
Zinc Sulphate Monohydrate **E-mail:** info@ittehadchemicals.com

Synonyms: Sulfate de Zinc; Zinc sulphate liquor; ZnSO₄, **Phone No.** 0423-7950222-25
Zinksulfatlauge; zink sulphate liquor; Neutral Bleed, Sulfuric Acid- Zinc Salt, Zinc Vitriol Monohydrate

Chemical Formula: ZnSO₄.H₂O, ZnSO₄.7H₂O

Recommended use:

Agricultural use, Manufacture of viscose rayon fiber, Production of Zinc Stearate, as a catalyst in numerous chemical operations, as a corrosion inhibitor in cooling towers and municipal water systems, in production of pigments, preservation and clarification of glue, in flame proofing compounds, as a mining flotation agent, in wood preservatives, in electro metallurgy and electro galvanizing.

Section 2 : Composition and Information on Ingredients

Name	Composition	EC No.	CAS No.
Zinc Sulphate Heptahydrate	Zn: 21 %	231-793-3	7733-02-0
Zinc Sulphate Monohydrate	Zn: 33 %		7446-19-7

Section 3: Hazards Identification**Classification of the Substance or Mixture:****Classification According to Regulation (EC) No 1272/2008**
Acute toxicity, Oral (Category 4), H302

Serious eye damage (Category 1), H318
Acute aquatic toxicity (Category 1), H400
Acute aquatic toxicity (Category 1), H400
Chronic aquatic toxicity (Category 1), H410

Label Elements:

Labelling According Regulation (EC) No 1272/2008

Pictogram:



Signal Word: Danger

H-statements:

H302 Harmful if swallowed.
H318 Causes serious eye damage.
H410 Very toxic to aquatic life with long lasting effects.

P-statements

P280 Wear eye protection
P264 Wash hands thoroughly after handling.
P305 + P351 + P338 If in Eyes: Rinse continuously with water for several minutes. Remove contact lenses, if present and easy to do.
P330 Rinse mouth.
P310 Immediately call a poison center/ doctor.
P391 Collect spillage

Section 4 : First Aid Measures

Inhalation:

Move the exposed person to fresh air at once. Get medical attention if any discomfort continues.

Ingestion:

Provide rest, warmth and fresh air. Immediately rinse mouth and drink plenty of water (200-300 ml). Get medical attention if any discomfort continues.

Skin Contact:

Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if any discomfort continues.

Eye Contact:

Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. Get medical attention immediately. Continue to rinse.

Section 5: Fire and Explosion Data

Flash Point: Not flammable

Extinguishing Media: Dry chemical, Carbon Dioxide or Foam. Water may be ineffective, but water spray or fog may be used as a cooling agent.

Fire and Explosion Hazards: May release toxic Oxides of Zinc and Sulfur in a fire.

Section 6: Accidental Release Measures**Personal Precautions, Protective Equipment and Emergency Procedures:**

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

Environmental Precautions:

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

Methods and Materials for Containment and Cleaning up:

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Section 7: Handling and Storage

Usage Precautions: Avoid spilling, skin and eye contact. Provide good ventilation.

Storage Precautions: Keep container tightly closed. Keep in original container.

Storage Class: Chemical storage.

Section 8: Exposure Controls/Personal Protection

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 Sulphate Heptahydrate	None listed	None listed	None listed
Zinc Sulphate Monohydrate			

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

Appearance:	Crystalline/Granule/Powder
Colour:	White/Offwhite
Odour:	No data available
Odour Threshold:	No data available
pH	4.0 - 6.0 (50 g/l at 20 °C)
Melting Point/Freezing Point:	Melting point/range: > 500 °C
Flash Point:	Not applicable
Evaporation Rate:	No data available
Flammability (solid, gas):	No data available
Upper/Lower Explosive Limits:	No data available
Vapour Pressure:	No data available
Vapour Density:	No data available
Relative Density:	Zinc Sulphate Heptahydrate: 1.957 g/cm ³ at 20 °C Zinc Sulphate Monohydrate: Not applicable

Water Solubility:	Zinc Sulphate Heptahydrate: 37% at 20°C Zinc Sulphate Monohydrate: 35g/100ml at 20°C
Partition Coefficient n-Octanol/Water:	No data available
Auto-ignition Temperature:	No data available
Decomposition Temperature:	No data available
Explosive Properties:	No data available
Oxidizing Properties:	No data available
Bulk Density:	No data available

Section 10: Stability and Reactivity Data

Reactivity:	Substance has acid reaction.
Chemical Stability:	Stable under normal conditions.
Possibility of Hazardous Reactions:	Reacts exothermically with (some) bases.
Conditions to Avoid:	Keep away from naked flames.
Incompatible Materials:	(strong) bases.
Hazardous Decomposition Products:	On burning: release of toxic and corrosive gases/vapours (sulphur oxides, zinc oxide).

Section 11: Toxicological Information

Inhalation:	Irritating to respiratory system.
Ingestion:	Harmful if swallowed.
Skin Contact:	Irritating to skin.
Eye Contact:	Risk of serious damage to eyes.

Section 12: Ecological Information




Ecotoxicity:	The product contains a substance which is very toxic to aquatic organisms and which may cause long term adverse effects in the aquatic environment.
Mobility:	The product is soluble in water.
Degradability:	The product is not readily biodegradable.

Section 13: Disposal Considerations

General Information: Waste to be treated as controlled waste. Disposal to licensed waste disposal site in accordance with local Waste Disposal Authority. Do not puncture or incinerate even when empty.

Disposal Methods: Dispose of waste and residues in accordance with local authority requirements.

Section 14: Transport Information

Regulatory Information	UN Number	Shipping Name	Classes	PG*	Label	Additional Information
DOT Classification	3077	Zinc Sulphate (Hydrous). Marine pollutant	9	III		Special Provisions Regulated if greater than the Reportable Quantity: 1,000 LBS (454 KG)
TDG Classification	3077	Zinc Sulphate (Hydrous). Marine pollutant	9	III		Special Provisions Regulated if greater than the Reportable Quantity: 1,000 LBS (454 KG)
Mexico Classification	3077	Zinc Sulphate (Hydrous). Marine pollutant	9	III		-

Section 15: Other Regulatory Information

U.S. Regulations:

SARA 313 Information; This product contain the following substance subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372: **Zinc Compound**.

SARA Hazard Category:

This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendments and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following category: **An Immediate Health Hazard**.

Chemical Safety Assessment:

For this product a chemical safety assessment was not carried out.

Section 16: Other Information

References: Not available

Other Special Considerations: Not available

Created on: 01.01.2019

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages.