



ALDON CORPORATION

MATERIAL SAFETY DATA SHEET

1533 W. Henrietta Rd.
Avon, New York 14414
(716) 226-6177

MSDS No. ZZ 115
Effective Date March 23, 1998

SECTION V HEALTH HAZARD DATA

ZZ 115

Threshold Limited Value

None established. (ACGIH 1992-93).
Toxicity: Oral (Rat) LD50: 2200 mg/kg.

Effects of Overexposure

Prompt vomiting (usually within five to ten minutes) after swallowing. Pain in mouth, esophagus and stomach. Diarrhea with "colicky" abdominal pain. Gastrointestinal irritation. **EYES:** May irritate eyes. Causes redness, corrosive. **SKIN:** Zinc sulfate in an open skin lesion or cut can cause an ulcer. **INHALATION AS DUST:** Irritant and corrosive to mucous membranes.

Emergency and First Aid Procedures

INGESTION: If swallowed, if conscious, give one or two glasses of water to drink. Call physician immediately. If vomiting occurs, keep head lower than hips to prevent aspiration. Never give anything by mouth to an unconscious person. **SKIN:** Flush with water, then wash with soap and water. **EYES:** Immediately flush thoroughly with water for 15 minutes, lifting lower and upper eyelids occasionally. Get immediate medical attention. **INHALATION:** Remove to fresh air. Treat symptomatically and get medical attention.

SECTION VI REACTIVITY DATA

Stability	Unstable	Conditions to Avoid
	Stable	X Deliquescent. Excessive heat and moisture.

Incompatibility (Materials to Avoid)	Strong oxidizers.
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Hazardous Decomposition Products	Thermal decomposition or burning may produce oxides of sulfur (SO _x) or fumes of zinc oxide.
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Hazardous Polymerization		Conditions to Avoid
May Occur	Will Not Occur	Not applicable.
	X	

SECTION VII SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled	Recover for use if not contaminated. Sweep up and place in a suitable dry container for proper disposal. Wash spill area with soap and water.
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Waste Disposal Method	Discharge, treatment, or disposal may be subject to Federal, State or Local laws. These disposal guidelines are intended for the disposal of catalog-size quantities only. <u>Large amounts:</u> Dispose of in an approved chemical landfill or contract with a licensed waste disposal service.
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SECTION VIII SPECIAL PROTECTION INFORMATION

Respiration Protection (Specify Type)		None should be needed in normal laboratory handling. If dusty conditions prevail, wear NIOSH/MSHA-approved dust mask.			
Ventilation	Local Exhaust	Recommended.	Special	No.	
	Mechanical (General)	Recommended.	Other	No.	
Protective Gloves		Rubber.		Eye Protection	Chemical safety glasses.
Other Protective Equipment		Goggles, smock, apron, eye wash station, ventilation hood, proper gloves.			

SECTION IX SPECIAL PRECAUTIONS

Precautions to be Taken in Handling & Storing	Store in a cool, dry place. Heptahydrate will cake in storage. Wash thoroughly after handling. Keep container tightly closed when not in use.
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Other Precautions	Read label on container before using. Do not wear contact lenses when working with chemicals. Efflorescent in dry air. Avoid contact with eyes, skin and clothing. Use with adequate ventilation. Remove and wash contaminated clothing.
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For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

Revision	No. 4	Date	3/23/98	Approved	Michael Raszeja	Chemical Safety Coordinator	MR
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SECTION I NAME 24 HOUR EMERGENCY ASSISTANCE

Product	ZINC SULFATE, HEPTAHYDRATE
Chemical Synonyms	White Vitriol, Heptahydrate
Formula	ZnSO ₄ •7H ₂ O
Unit Size	up to 2.5 Kg.
C.A.S. No.	7446-20-0

CHEMTREC
800-424-9300
Day 716-226-6177

NFPA
HAZARD RATING
LEAST SLIGHT MODERATE HIGH EXTREME
0 1 2 3 4

Health 2
Fire 0
Reactivity 0

HMIS *
3 4

SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Zinc Sulfate, Heptahydrate	100%	None established.
WARNING! HARMFUL IF SWALLOWED. CAUSES IRRITATION		
TO SKIN, EYES AND MUCOUS MEMBRANES. AVOID		
BREATHING DUST. USE WITH ADEQUATE VENTILATION.		

SECTION III PHYSICAL DATA

Melting Point (°F)	212°F (100°C)	Specific Gravity (H ₂ O = 1)	1.957 (25/4°C)
Boiling Point (°F)	Dec. above 932°F (500°C) Loses 7H ₂ O @ 280°C	Percent Volatile by Volume (%)	Non-volatile.
Vapor Pressure (mm Hg)	Negligible as solid.	Evaporation Rate (≈1)	Non-volatile.
Vapor Density (Air=1)	9.95		
Solubility in Water	166 grams per 100 mL. H ₂ O at 20°C.		
Appearance & Odor	White (colorless) crystals, granules, powder; no odor.		

SECTION IV FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	Non-flammable.	Flammable Limits in Air % by Volume	Lower	Upper
Extinguisher Media	Use any media suitable for extinguishing supporting fire.			

SPECIAL FIREFIGHTING PROCEDURES

Negligible fire hazard when exposed to heat or flame. In fire conditions, wear a NIOSH/MSHA-approved self-contained breathing apparatus.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Fire or excessive heat may produce hazardous decomposition products as dust as fume.

D.O.T. NON-REGULATED.

Approved by U.S. Department of Labor "essentially similar" to form OSHA-20