

# Comet Chemical Company Ltd.

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## Materials Safety Data - Aluminum Sulphate Sol'n (Alum 40% - 50% Solution)

Shipping Name UN - 1760  
CORROSIVE LIQUID, N.O.S.  
(ALUMINUM SULPHATE)  
Transport of Dangerous Goods Class Class 8; Packing Group III  
WHMIS Class E  
Material Use water purification, paper sizing, tanning, etc.

1. HAZARDOUS INGREDIENTS	CAS NUMBER	%	TWAEV (mg/m <sup>3</sup> )	LD <sub>50</sub> ORAL	(mg/kg) SKIN	LC <sub>50</sub> ppm INHALATION
Aluminum Sulphate	10043-01-3	40 -50%	2	6200	not known	not known

### 2. PHYSICAL CHARACTERISTICS

Odour & Appearance pearlescent, colourless to pale brown liquid with astringent odour  
Odour Threshold not known  
Vapour Pressure not known  
Vapour Density (air = 1) 1 (water vapour only)  
Boiling Point 105°C  
Freezing Point -16°C  
Specific Gravity 1.335 (20°C)  
Water Solubility approx 50% (of solid in water)  
pH 2.8 (strong acid)

### 3. FLAMMABILITY & REACTIVITY

Flash Point not flammable  
Autoignition Temperature not flammable  
Flammable Limits not flammable  
Hazardous Combustion Products corrosive fumes of SO<sub>3</sub> and SO<sub>4</sub>  
Firefighting Precautions not flammable  
Sensitivity to Static Discharge not sensitive  
Sensitivity to Mechanical Impact not sensitive  
Chemical Stability stable; will not polymerize  
Reactive With alkalies  
Dangerous Decomposition Products as "Hazardous Combustion Products"

### 4. TOXICOLOGY EFFECTS OF ACUTE EXPOSURE

Skin Contact irritating to flesh  
Skin Absorption nil  
Eye Contact irritating, likely to cause damage to eyes  
Inhalation mist irritating; may damage lungs  
Ingestion corrosive to digestive tract, may cause nausea, vomiting, diarrhoea, abdominal pain.

## (Aluminum Sulphate Sol'n, cont'd)

### EFFECTS OF CHRONIC EXPOSURE

General	prolonged exposure because of corrosive nature of product; local redness may occur
Sensitising	not known
Carcinogenic	no effects documented in humans
Reproductive Effect	experimentally, on intravenous or subcutaneous injection; no effects documented in humans
Synergistic With	kidney diseases
Estimated LD <sub>50</sub>	6200 mg/kg
Estimated LC <sub>50</sub>	not known

### 5. PROTECTIVE EQUIPMENT

Hands	rubber or other impervious gloves
Eyes	chemical safety goggles
Respirator	not required unless mists are generated
Clothing	rubber apron , boots, long sleeves, if splashing is anticipated

### 6. ENVIRONMENT

Leak Precaution	dyke to control spillage and prevent environmental contamination
Handling Spill	ventilate contaminated area; recover free liquid with suitable pumps; absorb residue on dry sand or sawdust and store in closed containers for disposal
Waste Disposal	may be flushed to sewage if neutralised to pH 8-9 and well diluted with water; consult local authorities before flushing to sewer or attempting to dispose of in sanitary landfill

### 7. STORAGE & HANDLING

Store in plastic, fibreglass, stainless or lined steel containers and equipment. Keep away from alkalis. Avoid prolonged contact with skin and wash work clothes frequently. An eye bath and safety shower should be available near the workplace.

### 8. FIRST AID

SKIN:	Wash with soap and plenty of water. Remove contaminated clothing and do not reuse until thoroughly cleaned or laundered.
EYES:	Wash eyes with plenty of water, holding eyelids open. Seek medical assistance promptly if there is any irritation.
INHALATION:	Remove from contaminated area promptly. <b>CAUTION: Rescuer must not endanger himself!</b> If breathing stops, administer artificial respiration and seek medical aid promptly.
INGESTION:	Give plenty of water to dilute product . Do not induce vomiting (see NOTE below). Keep victim quiet. If vomiting occurs, keep victim's head below the hips to prevent inhalation of vomited material. Seek medical help promptly.

NOTE: Inadvertent inhalation of vomited material may seriously damage the lungs. The risk and danger of this is greater than the risk of poisoning through absorption of this product. The stomach should be emptied under medical supervision, after the installation of an airway to protect the lungs.

Emergency telephone numbers	- weekdays from 8:00 - 5:00	(705) 436-5580
	at all other times	(800) 567-7455 (Philip Environmental)

Prepared for Comet Chemical Co. Ltd., by *Nicholas Morgan*, May 2002; Revised May 2005

*The information herein is given in good faith but no warranty, expressed or implied is made.*

**PLEASE ENSURE THAT THIS MSDS IS GIVEN TO AND EXPLAINED TO THE PERSON USING THIS PRODUCT.**