

# MATERIAL SAFETY DATA SHEETS

**Manufacturer's Name:** MCS Industries Ltd.  
**Address:** Unit 111 19292 60th Avenue  
 Surrey, B.C., Canada V3S 3M2

**Product Name:** ALUM-BRITE  
**MSDS No.:** MCS 003 **Date:** January 2002  
**Emergency Assistance:** Call (604) 469-0160 or Canutec (613) 996-6666  
**Chemical Family:** Halogenic Acidic Detergent Solution  
**Chemical Formula:** N/Applic  
**Material Use:** Industrial Use

## HAZARDOUS INGREDIENTS

Hydrofluoric Acid: 12-18% c.a.s. 7664-39-4  
 Orthophosphoric Acid: c.a.s. 7664-38-2

## PHYSICAL DATA

**Liquid:** Pungent Acidic Aroma, Yellow in Colour  
**Boiling Point:** 100 Degrees Celsius  
**Freezing Point:** 0 Degrees Celsius  
**% Volatile by Volume:** >98  
**Solubility in Water:** 100%  
**ph:** < 1  
**Specific Gravity:** 1.03

## FIRE & EXPLOSION DATA

**Flammability:** No

## REACTIVITY DATA

**Chemical Stability:** Yes  
**Incompatibility with other Substances:** Yes - Aluminum Containers  
**Reactivity & Under What Conditions:** Open Flame, Direct sunlight on hot days  
**Hazardous Decomposition Products:** Hydrogen Gas if stored in steel (metal) tanks

## TOXICOLOGICAL PROPERTIES

**Skin Contact:** Yes  
**Skin Absorption:** No  
**Eye Contact:** Yes  
**Inhalation Acute:** Yes  
**Inhalation Chronic:** No  
**Ingestion:** Yes

**Effects of Acute Exposure to Material:**  
 None expected at industrial use final dilution

**Effects of Chronic Exposure to Material:**  
 None expected at industrial use final dilution



<b>LD50 of Material:</b>	N/Avail
<b>LC50 of Material:</b>	1276 PPM/1 HR
<b>Legislative Exposure Limit of Material:</b>	N/Avail
<b>Irritancy of Material:</b>	N/Avail
<b>Sensitizing Capability of Material:</b>	N/Avail
<b>Carcinogenicity:</b>	None
<b>Reproductive Effects of Material:</b>	N/Avail
<b>Synergistic Materials:</b>	N/Avail

### PREVENTATIVE MEASURES

<b>Gloves:</b>	Neoprene or PVC
<b>Respiratory:</b>	Niosh/Msha Approved Respirator
<b>Eye:</b>	Chemical Goggles
<b>Footwear:</b>	Rubber Boots
<b>Clothing:</b>	Acid Suit
<b>Other:</b>	Don't Wear Contact Lenses
<b>Engineering Controls:</b>	Local Ventilation
<b>Leak &amp; Spill Procedure:</b>	Provide ventilation, neutralize with lime slurry & large quantity of water. Dilute below 1 PPM
<b>Waste Disposal:</b>	Dispose of according to government regulations
<b>Handling Procedures:</b>	Keep containers tightly closed
<b>Storage Requirements:</b>	Store in cool dry area away from incompatible materials
<b>Special Shipping Information:</b>	Hydrofluoric Acid Solution, Class 8, (6.1) UN 1790 PG11 Prohibited on passenger vessels. <b>Handle empty containers as if full.</b>

### FIRST AID MEASURES

<b>Skin Contact:</b>	Flush with cool water for 15 minutes, particularly under finger nails. Immerse in zephiran chloride solution. Get medical attention
<b>Eye Contact:</b>	Flush with cool water for 15 minutes, particularly under eye lids. Get medical attention
<b>Inhalation:</b>	Remove to fresh air. If breathing is abnormal, get medical attention.
<b>Ingestion:</b>	Do not induce vomiting. Swallow large quantities of water. Get medical attention
<b>Sources Used:</b>	Chemical Department
<b>Additional Information:</b>	Take off contaminated clothing

CAS = Chemical Abstract Service Number

ND = No Relevant Information or Not Available

PEL = OSHA Permissible Exposure Limit

NA = Not Applicable

TLV = ACGIN Threshold Limit Value, Current

CEL = Corporate Exposure Limit

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