

## SECTION 1 - Product Identification &amp; Use

<b>COMMON NAME:</b>	Scale Zero Plus	<b>MANUFACTURER:</b>	<b>DISTRIBUTOR:</b>
<b>MATERIAL IDENTIFIER:</b>	0209	Sci-Tech Inc.	
<b>APPLICATION:</b>	Descaler	#340 53016 Hwy 60	
<b>WHMIS CLASSIFICATION:</b>	D.1A, E	Acheson, AB T7X 5A7	
<b>EMERGENCY CONTACT:</b>	CANUTEC	(780) 960-1200	
<b>EMERGENCY PHONE:</b>	(613) 996-6666		

## SECTION 2 - Hazardous Ingredients

HAZARDOUS INGREDIENTS	%	CAS/UN #	LD(50) OF INGREDIENT	LC(50) OF INGREDIENT
Hydrochloric acid	10 - 30	7647-01-0	Rabbit (Oral) 900 mg/kg	Rat 1562 ppm 4h
Phosphoric acid	7 - 13	7664-38-2	n.av.	n.av.

## SECTION 3 - Physical Data

<b>PHYSICAL STATE:</b>	<b>ODOUR AND APPEARANCE:</b>	<b>SOLUBILITY IN WATER:</b>	<b>ODOUR THRESHOLD:</b>
Liquid	Mild; Tan	100%	1.0 ppm
<b>SPECIFIC GRAVITY:</b>	<b>VAPOUR DENSITY (air=1):</b>	<b>VAPOUR PRESSURE:</b>	<b>% VOLATILE BY VOLUME:</b>
1.2 ± 0.02	n.av.	100.0 mm Hg	n.av.
<b>BOILING POINT:</b>	<b>MELTING POINT:</b>	<b>pH:</b>	<b>OCTANE-WATER COEFF:</b>
> 100 °C	< 0 °C	1.0 ± 0.5	n.av.

## OTHER PERTINENT INFORMATION:

n.av.

## SECTION 4 - Fire &amp; Explosion Data

<b>FLAMMABILITY:</b>	<b>FLASHPOINT (°C):</b>	n.av.
This product will not burn or support combustion.	<b>AUTOIGNITION TEMPERATURE (°C):</b>	n.av.
<b>MEANS OF EXTINCTION:</b>	<b>LOWER FLAMMABLE LIMIT (% BY VOLUME):</b>	n.av.
Use large quantities of water or fog to extinguish fires.	<b>UPPER FLAMMABLE LIMIT (% BY VOLUME):</b>	n.av.
<b>SPECIAL PROCEDURES:</b>	<b>EXPLOSION SENSITIVITY TO IMPACT:</b>	n.av.
Use water spray to cool containers involved in a fire to prevent rupture. Use water spray or fog to reduce or redirect vapours.	<b>SENSITIVITY TO STATIC DISCHARGE:</b>	n.av.
<b>HAZARDOUS COMBUSTION PRODUCTS:</b>		
(See Hazardous Decomposition)		

## SECTION 5 - Reactivity Data

<b>CHEMICAL STABILITY:</b>
Stable under normal conditions.
<b>INCOMPATIBLE MATERIALS:</b>
Incompatible with strong caustics, strong oxidizing agents, reducing agents or organic peroxides, fluorides, halogenated organics, cyanides, sulfides, mercaptans, and nitrides.
<b>HAZARDOUS DECOMPOSITION:</b>
Will thermally decompose to yield toxic fumes of phosphorous oxide, hydrogen, and chlorine.

**SECTION 6 - Toxicological Properties****INHALATION:**

Symptoms of inhalation may include eye, nose, and throat irritation, dizziness, headache, and sickness.

**EYE CONTACT:**

May cause severe irritation to eyes, visual impairment, or complete blindness

**SKIN CONTACT:**

Capable of causing severe burns with deep ulceration. Will penetrate to deeper layers of skin, resulting in permanent scarring and possibly death. Burns may not be immediately painful.

**INGESTION:**

May cause burning in mouth and esophagus, as well as gastrointestinal irritation and nausea resulting in fatality.

**SECTION 7 - Preventative Measures**

**GLOVES:** Rubber, vinyl, or neoprene gloves required.

**FOOTWEAR:** Rubber boots required.

**RESPIRATOR:** NIOSH approved

**CLOTHING:** Impermeable coveralls required.

**EYEWEAR:** Chemical goggles or face shield required.

**OTHER:** Eye-wash station and shower required.

**ENGINEERING CONTROL:**

Use with adequate general ventilation.

**LEAK AND SPILL PROCEDURE:**

Contain spill or leak. Do not allow entry into sewers or waterways. Spilled solutions should be contained by diking. Solutions can be carefully diluted with water and neutralized soda ash or sodium bicarbonate.

**WASTE DISPOSAL:**

Federal, provincial, and local regulations should be reviewed prior to disposal. Disposal by secure landfill may be acceptable.

**HANDLING PROCEDURES AND EQUIPMENT:**

Due to the toxic and corrosive nature of this product, it is important that adequate PPE and personal hygiene requirements are met.

**STORAGE REQUIREMENTS:**

Store in a cool, dry, well-ventilated area. Store in suitable, labeled containers (usually the shipping container). Keep containers tightly closed when not in use and when empty. Protect from damage.

**TDG CLASSIFICATION:**

Corrosive liquids, acidic, inorganic n.o.s. (Hydrochloric acid): Class 8, UN3264, PG III

**SECTION 8 - First Aid Procedures****INHALATION:**

Remove victim to fresh air. If breathing is difficult, oxygen may be beneficial if administered by trained personnel. Immediately transport victim to an emergency care facility.

**EYE CONTACT:**

In case of contact with eyes, continuously flush eyes with plenty of water or neutral saline solution for at least 60 minutes. Transport to emergency facility.

**SKIN CONTACT:**

In case of contact with skin, remove contaminated clothing and flush with water for at least 60 minutes. Do not interrupt flushing. Transport to an emergency facility.

**INGESTION:**

Rinse victim's mouth with water. DO NOT INDUCE VOMITING. Have victim drink 300 mL of water to dilute material in stomach. If milk is available, it may be given AFTER the water. Transport victim to an emergency facility.

**SECTION 9 - Preparation of MSDS****PREPARED BY:**

SCI-TECH Department of Research and Development

**PHONE NUMBER:**

(780) 960-1200

**CONSTRUCTED:**

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