

# Safety Data Sheet

## SCALE X2

### SECTION 1. IDENTIFICATION

<b>Product Identifier</b>	SCALE X2
<b>Other Means of Identification</b>	L6060
<b>Recommended Use</b>	Descaler.
<b>Restrictions on Use</b>	Industrial Use Only - Keep Away from Children.
<b>Distributed By</b>	Russell Hendrix, 10808 - 120 Street, Edmonton, AB, T5H 3P7, Canada
<b>Supplier Identifier</b>	Russell Hendrix, 10808 - 120 Street, Edmonton, AB, T5H 3P7, Canada CANUTEC,
<b>Emergency Phone No.</b>	613 966 - 6666, 24 Hours Alberta Poison Centre, (800) 332 - 1414, 24 Hours
<b>SDS No.</b>	00680213

### SECTION 2. HAZARD IDENTIFICATION

#### Classification

Corrosive to metals - Category 1; Acute toxicity (Oral) - Category 3; Skin corrosion - Category 1B; Serious eye damage - Category 1; Specific target organ toxicity (single exposure) - Category 3

#### Label Elements



Signal Word:  
Danger

#### Hazard Statement(s):

Toxic if swallowed.  
May be corrosive to metals.  
Causes severe skin burns and eye damage.  
May cause respiratory irritation.

#### Precautionary Statement(s):

Prevention:  
Wash hands and skin thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Avoid breathing dust/fume/gas/mist/vapours/spray.  
Wear protective gloves/protective clothing/eye protection/face protection.

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**Response:**

IF SWALLOWED: Immediately call a POISON CENTRE/doctor/

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

Wash contaminated clothing before reuse.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

Absorb spillage to prevent material damage.

**Storage:**

Store in a well-ventilated place. Keep container tightly closed.

**Disposal:**

Dispose of contents and container in accordance with local, regional, national and international regulations.

**Other Hazards**

Repeated exposure may cause skin dryness or cracking.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture:

Chemical Name	CAS No.	%	Other Identifiers	Other Names
Hydrochloric acid	7647-01-0	15-30		
N, N-DIMETHYL-N-DODECYLAMINE OXIDE	1643-20-5	1-5		

### SECTION 4. FIRST-AID MEASURES

**First-aid Measures**

**Inhalation**

Move to fresh air. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by Poison Centre or doctor. Immediately call a Poison Centre or doctor.

**Skin Contact**

Take off contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Quickly and gently blot or brush away excess chemical. Immediately rinse skin with lukewarm, gently flowing water for at least 30 minutes. Immediately call a Poison Centre or doctor. Double bag, seal, label and leave contaminated clothing, shoes and leather goods at the scene for safe disposal.

**Eye Contact**

Avoid direct contact. Wear chemical protective gloves if necessary. Quickly and gently blot or brush chemical off the face. Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for at least 30 minutes, while holding the eyelid(s) open. If contact lens is present, DO NOT DELAY irrigation or attempt to remove the lens until flushing is done. Neutral saline solution may be used as soon as it is available. Immediately call a Poison Centre or doctor.

**Ingestion**

Never give anything by mouth if person is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Rinse mouth with water. If vomiting occurs naturally, lie on your side in the recovery position. Rinse mouth with water again.

Immediately call a Poison Centre or doctor.

**Most Important Symptoms and Effects, Acute and Delayed**

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If in eyes: may cause serious eye damage. May irritate or burn the eyes. Permanent damage including blindness may result.

If on skin: may burn the skin. Permanent scarring may result.

If swallowed: can burn the lips, tongue, throat and stomach.

If inhaled: symptoms may include coughing, shortness of breath, difficult breathing and tightness in the chest. May be drawn into the lungs if swallowed or vomited, causing severe lung damage. Death can result.

#### **Immediate Medical Attention and Special Treatment**

##### **Medical Conditions Aggravated by Exposure**

None known.

## **SECTION 5. FIRE-FIGHTING MEASURES**

### **Extinguishing Media**

#### **Suitable Extinguishing Media**

Not combustible. Use extinguishing agent suitable for surrounding fire. Use water to keep non-leaking, fire-exposed containers cool.

#### **Unsuitable Extinguishing Media**

None known.

### **Specific Hazards Arising from the Product**

Heating increases the release of toxic vapour. Closed containers may rupture violently when heated releasing contents. Contact with common metals produce extremely flammable hydrogen gas. Hydrogen chloride is thermally stable up to approximately 1500 deg C (2732 deg F.) Above this temperature, hydrogen chloride begins to dissociate into extremely flammable hydrogen gas and very toxic and corrosive chlorine gas.

In a fire, the following hazardous materials may be generated: irritating chemicals; toxic chemicals; very toxic carbon monoxide, carbon dioxide; flammable hydrogen.

### **Special Protective Equipment and Precautions for Fire-fighters**

Evacuate area. Fight fire from a safe distance or a protected location. Approach fire from upwind to avoid hazardous vapours or gases. Knock down vapours or gases with water fog or fine water spray.

Before entry, especially into confined areas, use an appropriate monitor to check for: toxic gases or vapours.

If a fire occurs in the vicinity of the material, isolate materials not yet involved in the fire, and move containers from the fire area if this can be done without risk. If not possible, cool fire-exposed material with flooding quantities of water to absorb heat, keep containers cool and protect fire-exposed material. Cooling should continue until well after the fire is out.

Fire-fighters may enter the area if positive pressure SCBA and full Bunker Gear is worn.

## **SECTION 6. ACCIDENTAL RELEASE MEASURES**

### **Personal Precautions, Protective Equipment, and Emergency Procedures**

Emergency responders: evacuate the area immediately. Isolate the hazard area. Keep out unnecessary and unprotected personnel. Do not touch damaged containers or spilled product unless wearing appropriate protective equipment. Increase ventilation to area or move leaking container to a well-ventilated and secure area. Remove or isolate incompatible materials as well as other hazardous materials.

### **Environmental Precautions**

It is good practice to prevent releases into the environment. Do not allow into any sewer, on the ground or into any waterway.

### **Methods and Materials for Containment and Cleaning Up**

Stop or reduce leak if safe to do so.

Small spills or leaks: neutralize. Soda ash and lime are neutralizing agents. Contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal.

Large spills or leaks: dike spilled product to prevent runoff. Neutralize. Soda ash and lime are neutralizing agents.

Remove or recover liquid using pumps or vacuum equipment.

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## SECTION 7. HANDLING AND STORAGE

### Precautions for Safe Handling

Avoid breathing in this product. Do not swallow. Do not get in eyes. Prevent skin contact. Only use where there is adequate ventilation. Avoid generating vapours or mists. Avoid heating that will increase the amount of vapours. Prevent accidental contact with incompatible chemicals. Immediately report leaks, spills or failures of the safety equipment (e.g. ventilation system).

Use corrosion-resistant tools and equipment. See Section 10 (Stability and Reactivity) for suitable materials. Prevent uncontrolled release of product. Avoid release to the environment.

General hygiene considerations: wash hands thoroughly after handling this material. Do NOT eat, drink or store food in work areas. Wash hands thoroughly after handling this product and before eating, using the washroom or leaving work area. Immediately remove any clothing which becomes wet or heavily contaminated. Launder clothes before re-wearing. Inform laundry personnel of product hazard(s).

### Conditions for Safe Storage

Store in an area that is: separate from incompatible materials (see Section 10: Stability and Reactivity), well-ventilated. Avoid freezing. Store in a closed container. Do not handle swollen drums. Get expert advice.

Comply with all applicable health and safety regulations, fire and building codes.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

Chemical Name	ACGIH TLV®		OSHA PEL		AIHA WEEL	
	TWA	STEL	TWA	Ceiling	8-hr TWA	TWA
Hydrochloric acid				5 ppm		

### Appropriate Engineering Controls

Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air. Use a corrosion-resistant exhaust ventilation system separate from other ventilation systems. Exhaust directly to the outside, taking any necessary precautions for environmental protection.

Provide eyewash and safety shower if contact or splash hazard exists.

### Individual Protection Measures

#### Eye/Face Protection

Wear chemical safety goggles and face shield when contact is possible.

#### Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots.

The following materials should NOT be used: polyvinyl alcohol.

#### Respiratory Protection

If engineering controls do not maintain airborne contaminant concentration at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use and maintenance must be in accordance with regulatory requirements, if applicable.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### Basic Physical and Chemical Properties

Appearance	Light brown.
Odour	Acidic
Odour Threshold	0.05 mg/m <sup>3</sup>
pH	< 1
Melting Point/Freezing Point	Not available (melting); ~ -40 °C (-40 °F) (freezing)
Initial Boiling Point/Range	~ 85 °C (185 °F)
Flash Point	Not applicable
Evaporation Rate	~ 0.3

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<b>Flammability (solid, gas)</b>	Not applicable (liquid).
<b>Upper/Lower Flammability or Explosive Limit</b>	Not applicable (upper); Not applicable (lower)
<b>Vapour Pressure</b>	~ 2.33 kPa (17.48 mm Hg) at 20 °C
<b>Vapour Density (air = 1)</b>	~ 0.6
<b>Relative Density (water = 1)</b>	1.04
<b>Solubility</b>	Soluble in all proportions in water
<b>Partition Coefficient, n-Octanol/Water (Log Kow)</b>	Not available
<b>Auto-ignition Temperature</b>	Not applicable
<b>Decomposition Temperature</b>	Not available
<b>Viscosity</b>	Not available (kinematic); ~ 1 centipoises (dynamic)

## SECTION 10. STABILITY AND REACTIVITY

### Reactivity

Not reactive under normal conditions of use. Contact with hypochlorites liberates chlorine gas. May react violently with incompatible materials. Large amounts of heat can be released when concentrated hydrochloric acid is mixed with water or organic solvents.

### Chemical Stability

Normally stable.

### Possibility of Hazardous Reactions

None expected under normal conditions of storage and use.

### Conditions to Avoid

Incompatible materials. High temperatures.

### Incompatible Materials

Strong oxidizing agents (e.g. perchloric acid), reducing agents (e.g. hydroquinone), metals (e.g. aluminum), aldehydes (e.g. acetaldehyde), epoxides (e.g. ethylene oxide), strong bases (e.g. sodium hydroxide).

Corrosive to: aluminum alloys, carbon steel.

### Hazardous Decomposition Products

Very toxic carbon monoxide, carbon dioxide; corrosive chlorine; flammable hydrogen gas; corrosive phosphorous oxides.

## SECTION 11. TOXICOLOGICAL INFORMATION

### Likely Routes of Exposure

Inhalation; skin contact; eye contact; ingestion.

### Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Hydrochloric acid	1106 ppm (guinea pig) (4-hour exposure)	2121 mg/kg (rat)	> 5010 mg/kg (rabbit)
N, N-DIMETHYL-N- DODECYLAMINE OXIDE		1220 mg/kg	

### Skin Corrosion/Irritation

Human experience and animal tests show skin corrosion.

### Serious Eye Damage/Irritation

Human experience and animal tests show serious eye damage.

### STOT (Specific Target Organ Toxicity) - Single Exposure

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### Inhalation

At low concentrations may cause nose and throat irritation. Symptoms may include coughing, shortness of breath, difficult breathing and tightness in the chest.

At high concentrations may cause severe bronchial irritation and pulmonary edema. Symptoms of pulmonary edema can be delayed for up to 24 or 48 hours.

### Skin Absorption

No information was located.

### Ingestion

Harmful based on information for closely related materials. May cause severe irritation or burns to the mouth, throat and stomach. Symptoms may include nausea, vomiting, stomach cramps and diarrhea. Circulatory collapse and death.

### Aspiration Hazard

May be drawn into the lungs (aspirated) if swallowed or vomited.

### STOT (Specific Target Organ Toxicity) - Repeated Exposure

May cause effects similar to STOT (Specific Target Organ Toxicity) - Single Exposure, as described above. Prolonged exposure can cause erosion and discolouration of teeth and chronic inflammation of nose, throat and airways. In general, long-term skin contact with low concentrations of corrosive materials can cause dry, red, cracked skin (dermatitis.).

### Respiratory and/or Skin Sensitization

Not known to be a respiratory sensitizer. Not known to be a skin sensitizer.

### Carcinogenicity

Chemical Name	IARC	ACGIH®	NTP	OSHA
N, N-DIMETHYL-N- DODECYLAMINE OXIDE	Group 3			

Not known to cause cancer.

### Reproductive Toxicity

#### Development of Offspring

Not known to harm the unborn child.

#### Sexual Function and Fertility

Not known to cause effects on sexual function or fertility.

#### Effects on or via Lactation

Not known to cause effects on or via lactation.

### Germ Cell Mutagenicity

Not known to be a mutagen.

### Interactive Effects

No information was located.

## SECTION 12. ECOLOGICAL INFORMATION

This section is not required by WHMIS. This section is not required by OSHA HCS 2012.

## SECTION 13. DISPOSAL CONSIDERATIONS

### Disposal Methods

This section is not required by OSHA HCS 2012. This section is not required by WHMIS 2015.

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## SECTION 14. TRANSPORT INFORMATION

This section is not required by WHMIS 2015. This section is not required by OSHA HCS 2012.

UN 1789 HYDROCHLORIC ACID SOLUTION CLASS 8, II

**Special Precautions** Not applicable

**Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable

## SECTION 15. REGULATORY INFORMATION

**Safety, Health and Environmental Regulations**

This section is not required by OSHA HCS 2012. This section is not required by WHMIS.

## SECTION 16. OTHER INFORMATION

**SDS Prepared By** Chemisphere Solutions Ltd

**Phone No.** (780) 460-4670

**Date of Preparation** May 14, 2018

**Date of Last Revision** May 14, 2018

**Revision Indicators** The following SDS content was changed on May 14, 2018:  
SECTION 11. TOXICOLOGICAL INFORMATION; LC50/LD50 values.

**Key to Abbreviations** IARC = International Agency for Research on Cancer  
HSDB® = Hazardous Substances Data Bank  
OSHA = US Occupational Safety and Health Administration

**References** CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS).  
HSDB® database. US National Library of Medicine. Available from Canadian Centre for Occupational Health and Safety (CCOHS).

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