



## SCALE DISSOLVER & INHIBITOR SAFETY DATA SHEET

### 1. Product and Company Identification

**1.1.Product Name:** Scale dissolver & Inhibitor  
**1.2.Distributor:** National Refrigerants Ltd.,  
4 Watling Close  
Sketchley Meadows Industrial Estate  
Hinckley  
Leistershire  
LE10 3EZ

**1.3.Emergency Telephone No.:**  
IN AN EMERGENCY DIAL 999 (UK Only)  
For specialist advice in an emergency telephone  
+441455 630790

### 2. Composition/Information on Ingredient

Hazardous Component: Hydrochloric Acid  
Isopropyl Alcohol

### 3. Hazard Identification

**Overview:** DANGER! Corrosive to all body tissues. Causes destruction of eye and skin tissue. Harmful if inhaled or swallowed.

**Potential Health Effects:**

**Inhalation:** Corrosive to respiratory passages. May cause coughing, wheezing, laryngitis, shortness of breath, headache, and nausea.

**Eye contact:** Immediate irritation and burning followed by destruction of eye tissue.

**Skin contact:** Immediate irritation and burning sensation followed by destruction of skin tissue. Absorption is unlikely. May aggravate pre-existing skin disorders.

**Ingestion:**

**Chronic effects:**

### 4. First Aid Measures

**Inhalation:** Remove victim to fresh air and keep warm. If breathing fails give artificial respiration. Authorised personnel may give oxygen if breathing is laboured. Obtain immediate medical attention.

**Eye Contact:** Flush eye for at least 15 minutes holding the eye open. Obtain immediate medical attention.

**Skin contact:** Flush with water or soap and water for 15 minutes or until all traces have been removed. Seek medical attention if symptoms develop and persist.

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**Ingestion:** DO NOT INDUCE VOMITING. Get immediate medical attention.  
See also Section 11.

### 5. Fire Fighting Measures

**Extinguishing Media:** Dry Powder, Carbon dioxide (CO<sub>2</sub>) Water fog or spray.

**Hazard:** Exposed to heat and fire acrid smoke and toxic fumes generated.

**Fire Fighting Protective Equipment:** Fire-fighters wear protective clothing and self-contained breathing apparatus.

### 6. Accidental Release Measures (Spillage)

**Personal Precautions:** Use approved personal protective equipment.

**Environmental Precautions:** Keep non-neutralised material out of sewers, storm drains, surface water and soil. Notify National Rivers Authority and local Environmental Health Officer if major spillage occurs.

**Recovery of Major Spillage:** Contain spill with inert material. Absorb spilled material with sand or earth and remove to a safe place. Flush area with water.

**Minor Spillage:** Wash area down with copious amounts of water.

### 7. Handling and Storage

**Handling:** Always add acid to water and never water to acid. Avoid contact with skin, eyes and clothing. After handling this product wash hands before eating, drinking or smoking. If contact occurs remove contaminated clothing. If needed take first aid action shown above. Launder contaminated clothing before reuse.

**Storage:** Store in a dry place protected against moisture and water. Store away from oxidisers.

### 8. Exposure Controls & Personal Protection

#### Occupational Exposure Limits

Hazardous Ingredients	8 hr TWA	
	OSHA PEL	ACGIH TLV
Hydrochloric Acid	CL 5ppm	CL 5ppm
Isopropyl Alcohol	400 ppm	400 ppm
	STEL 500 ppm	STEL 500 ppm

**Engineering Controls:** Local exhaust recommended.

#### Personal Protection:

**Respiratory:** In cases where mist may be formed ventilate to maintain vapour concentrations below exposure limit. If not use a well maintained chemical cartridge respirator, or use self contained breathing apparatus.

**Hand:** Use nitrile gloves or PVC gauntlets.

**Eye:** Use chemical splash proof glasses or goggles

**Skin:** If skin contact or contamination of clothing is likely protective clothing must be worn.

### 9. Physical and Chemical Properties

**Appearance:** Black liquid.

**Odour:** Sharp pungent odour.

**pH:** < 2

**Boiling Point:** 110<sup>0</sup>C

**Melting Point:** ND

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**Flash Point:** None – aqueous solution.

**Flammability Upper:** Not applicable.

**Flammability Lower:** Not applicable.

**Vapour Density (Air = 1):** ND

**Specific Gravity:** 1.1

**10. Stability and Reactivity**

**Stability:** Stable.

**Conditions to Avoid:** High Temperatures.

**Materials to Avoid:** Alkaline materials & metals.

**Recommended Materials for equipment:** Mild Steel, 316, polythene.

**Hazardous Decomposition products:** From combustion acrid smoke and toxic fumes.

**11. Toxicological Information**

Hydrochloric Acid	LDL <sub>0</sub>	81mg/kg	(urn – man)
	LD <sub>50</sub>	900 mg/kg	(oral – rabbit)
	LCL <sub>0</sub>	1300 ppm/30 min	(inh – human)
	LCL <sub>0</sub>	3000 ppm/5 min	(inh – human)
Isopropyl Alcohol	LDL <sub>0</sub>	223 mg/kg	(oral – human) CNS, CVS
	LDL <sub>0</sub>	3570 mg/kg	(oral – human) CNS, PUL, GIT
	LD <sub>50</sub>	12800 mg/kg	(skin – rabbit)
	LD <sub>50</sub>	3600 mg/kg	(oral – mouse)

**12. Ecological Information**

**Mobility:** Soluble.

**Aquatic Toxicity:** Dangerous to aquatic life in high concentrations.

Hydrochloric Acid      282 ppm/96 hr/mosquito fish/TLm/fresh water

100 – 300 ppm/48 hr/shrimp/LC<sub>50</sub>/salt water

Isopropyl Alcohol      900 – 1100 ppm/24 hr/chub/critical range/fresh water

**13. Disposal Considerations**

**Disposal Method:** Dispose as hazardous waste at a controlled waste site. Do not dispose as domestic waste.

**Contaminated Packaging:** Empty completely and rinse with water.

**14. Transport Information**

**Packaging size:** 1 & 5 US gallon plastic bottles.

**Class (ADR):** 8

**UN Number:** UN1760

**Packing Group:** II

**Proper Shipping Name (ADR):** Corrosive liquids N.O.S. (hydrochloric acid), 8, UN1760, PG II

**15. Regulatory Information**

**Supply Classification Hazard Pictogram:** Corrosive.

**Risk Phrases:**    35      Causes sever burns

**Safety Phrases:**   2      Keep out of the reach of children

26      In case of contact with eyes, rinse immediately with plenty of

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water and seek medical advice.

37/39 Wear suitable gloves and eye/face protection.

#### **16. Other Information**

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