



SAFETY DATA SHEET

Issue Date: 01-Feb-2011

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Version 1

1. IDENTIFICATION

Product Identifier

Product Name NC Scale Dissolver & Inhibitor

Other means of identification

SDS # NSR1G, NSR5G

UN/ID No UN1789

Other Information Package type: 1, 5, 55 gal.

Recommended use of the chemical and restrictions on use

Recommended Use Food grade all-purpose scale dissolver.

Restrictions on Use For professional use only. Product is a concentrate and should be diluted prior to use.

Details of the supplier of the safety data sheet

Distributor Address

National Refrigeration Products
985 Wheeler Way
Langhorne, PA 19047 USA

Emergency telephone number

Company Phone Number 800-352-6951

Emergency Telephone Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

Skin corrosion/irritation	Category 1 Sub-category B
Serious eye damage/eye irritation	Category 1
Specific target organ toxicity (single exposure)	Category 3

Signal Word

Danger

Hazard Statements

Causes severe skin burns and eye damage
May cause respiratory irritation. May cause drowsiness or dizziness

**Appearance** Brown liquid**Physical State** Liquid**Odor** Pungent**Precautionary Statements – Prevention**

Do not breathe dust/fume/gas/mist/vapors/spray
 Wash face, hands and any exposed skin thoroughly after handling
 Wear protective gloves/protective clothing/eye protection/face protection
 Use only outdoors or in a well-ventilated area

Precautionary Statements – Response

Immediately call a POISON CENTER or doctor/physician
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 Immediately call a POISON CENTER or doctor/physician
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
 Wash contaminated clothing before reuse
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 Immediately call a POISON CENTER or doctor/physician
 Call a POISON CENTER or doctor/physician if you feel unwell
 IF SWALLOWED: Rinse mouth. DO NOT induce vomiting

Precautionary Statements – Storage

Store locked up
 Store in a well-ventilated place. Keep container tightly closed
 Store away from incompatible materials

Precautionary Statements – Disposal

Dispose of in accordance with federal, state and local regulations

Hazards not otherwise classified (HNOC)

May be harmful if swallowed

Other Information

Not Applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
Hydrochloric acid	7647-01-0	<85

4. FIRST AID MEASURES

First aid measures**General Advice**

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

Inhalation

Remove to fresh air. If not breathing, give artificial respiration. Get medical attention.

Eye Contact

In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Ingestion	Do NOT induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Rinse mouth thoroughly with water. Get medical attention.
Skin Contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention immediately.

Most important symptoms and effects, both acute and delayed

Symptoms	May cause gastrointestinal irritation, nausea, diarrhea, and vomiting. Irritation and corrosive burns to mouth, throat, and stomach. May cause irritation to the mucous membranes and upper respiratory tract. Severe burns to exposed skin.
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Indication of any immediate medical attention and special treatment needed

Note to physicians	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media Not determined

Specific hazards arising from the chemical

Reacts with oxidizers, chlorinating agents, and most metals. Contact with metals may evolve flammable hydrogen gas.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions	Use personal protective equipment as required. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.
Environmental Precautions	See Section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for Containment	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Methods for Cleaning Up	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Scoop material into suitable container for disposal. For waste disposal, see section 13 of the SDS.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling	Handle in accordance with good industrial hygiene and safety practice. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with skin, eyes or clothing. Wash face, hands and any exposed skin thoroughly after handling. Use only outdoors or in a well-ventilated area. Use personal protection recommended in Section 8.
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Conditions for safe storage, including any incompatibilities

Storage Conditions	Store locked up. Store away from incompatible materials. Keep container tightly closed in a dry and well-ventilated place.
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Incompatible materials Chlorinating agents. Alkali. Alkaline materials. Oxidizers. Metals.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Hydrochloric acid 7647-01-0	Ceiling: 2 ppm	(vacated) Ceiling: 5 ppm (vacated) Ceiling: 7 mg/m ³ Ceiling: 5 ppm Ceiling: 7 mg/m ³	IDLH: 50 ppm Ceiling: 5 ppm Ceiling: 7 mg/m ³

Appropriate engineering controls

Engineering Controls Ventilation must be adequate to maintain the ambient workplace atmosphere below the exposure limit(s) outlined in the SDS.

Individual protection measures, such as personal protective equipment

Eye/face Protection Use tight fitting, splash proof safety goggles. Contact lenses should not be worn when handling this material. Face Mask.

Skin and Body Protection Wear suitable protective clothing and footwear appropriate for the risk of exposure. Wear protective Neoprene™ gloves.

Respiratory Protection Ensure adequate ventilation, especially in confined areas.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid	Odor	Pungent
Appearance	Brown liquid	Odor threshold	Not determined
Color	Brown		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	1.0	
Melting point/freezing point	Not determined	
Flash point	Not determined	
Evaporation rate	Not determined	
Flammability (solid, gas)	Not determined	
Flammability Limits in Air	Not determined	
Upper flammability limits	Not determined	
Lower flammability limits	Not determined	
Vapor pressure	Not determined	
Vapor density	Not determined	
Specific gravity	1.1525	@ 68°F (20°C)
Water solubility	Not determined	
Solubility in other solvents	Not determined	
Partition in other solvents	Not determined	
Partition coefficient	Not determined	
Autoignition temperature	Not determined	
Kinematic viscosity	Not determined	
Dynamic viscosity	Not determined	
Explosive properties	Not determined	
Oxidizing properties	Not determined	

Other Information

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Contact with incompatible materials.

Incompatible materials

Chlorinating agents. Alkali. Alkaline materials. Oxidizers. Metals.

Hazardous Decomposition Products

Hydrogen gas.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Inhalation	May cause irritation of respiratory tract.
Eye Contact	Causes severe eye damage.
Skin Contact	Causes severe skin burns.
Ingestion	May be harmful if swallowed

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Hydrochloric acid 7647-01-0	= 700 mg/kg (Rat)	> 5010 mg/kg (Rabbit)	= 3124 ppm (Rat) 1 h

Information on physical, chemical and toxicological effects

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

Chemical Name	ACGIH	IARC	NTP	OSHA
Hydrochloric acid 7647-01-0		Group 3		

IARC (International Agency for Research on Cancer)

Group 3 IARC components are "not classifiable as human carcinogens"

Numerical measures of toxicity – Product

Not determined

12. ECOLOGICAL INFORMATION

Ecotoxicity

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Hydrochloric acid 7647-01-0		282: 96 h Gambusia affinis mg/L LC50 static		

Persistence and degradability

Not determined

Bioaccumulation

Not determined

Mobility

Not determined

Other adverse effects

Not determined

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging

Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION

Note

Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances

DOT

UN/ID No	UN1789
Proper shipping name	Hydrochloric acid solution
Hazard Class	8
Packing Group	II
Reportable Quantity (RQ)	5000 lbs

IATA

UN/ID No	UN1789
Proper shipping name	Hydrochloric acid solution
Hazard Class	8
Packing Group	II

IMDG

UN/ID No	UN1789
Proper shipping name	Hydrochloric acid solution
Hazard Class	8
Packing Group	II

15. REGULATORY INFORMATION

International Inventories

Not determined

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

U.S. Federal Regulations

Chemical Name	CAS No	Weight-%	SARA 313 - Threshold Values %
Hydrochloric acid - 7647-01-0	7647-01-0	<85	1.0

SARA 311/312 Hazard Categories

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Hydrochloric acid 7647-01-0	5000 lb			X
Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)	
Hydrochloric acid 7647-01-0	5000 lb	5000 lb	RQ 5000 lb final RQ RQ 2270 kg final RQ	

U.S. State Regulations

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Hydrochloric acid 7647-01-0	X	X	X

U.S. EPA Label Information

16. OTHER INFORMATION

NFPA	Health hazards	Flammability	Instability	Special Hazards
	Not determined	Not determined	Not determined	Not determined
HMIS	Health hazards	Flammability	Physical hazards	Personal protection
	3	0	1	X

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 Revision Note: Corrections

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet