MATERIAL SAFETY DATA SHEET

According to 1907/2006/EC, Article 31

Product Name: **Dynamic Descaler**

Basis of this data sheet: US Data sheet to ANSI Z400

Current revision: **15 January 2013**

1. PRODUCT INFORMATION

Uses: **Cleaning and Descaling compound**

2. COMPOSITION/INFORMATION ON INGREDIENTS

MATERIAL OR COMPONENT	Conc.	CAS No.
Hydrogen Chloride, Aqueous	9%	7647-01-0

NOTE: Laboratory tests indicate material to be biodegradable.

3. HAZARDS IDENTIFICATION

Not Classified under EC Directives.

4. FIRST AID MEASURES

Eye Contact: On contact with eyes, rinse immediately with plenty of running water for at least 15 minutes. If irritation persists seek medical advice.

Ingestion: If swallowed drink water or milk of magnesia. Do not induce vomiting. Seek medical advice showing the container/label or this safety data sheet.

Skin Contact: Wash affected area with plenty of water. Remove and wash contaminated clothing. Seek medical attention if irritation occurs.

Inhalation: Remove affected person to fresh air. Apply resuscitation if necessary. If irritation persists, seek medical attention.

Advice to Doctor: Treat symptomatically

First Aid Facilities: Eye wash facilities should be provided

5. FIRE-FIGHTING MEASURES

Flammability: Non Flammable

Fire and Explosion: Product is Non Flammable. If product involved in fire, wear self-contained breathing apparatus, protective clothing and eye protection for fire fighting. Use water fog, water or foam to cool intact containers and nearby storage areas.

Extinguishing: Non-Flammable

Hazchem Code: None Allocated

6. ACCIDENTAL RELEASE MEASURES

Spillage: Small spills can be mopped up using sand or spill control granules. If spilt in bulk, wear splash-proof goggles, PVC/rubber gloves, coveralls and rubber boots. Neutralize with large amounts of water and (if available) diluted sodium carbonate. Prevent spill entering drains or waterways until neutralized.

7. HANDLING AND STORAGE

Handling: Use safe work practices to avoid eye and skin contact. Observe good personal hygiene. Prohibit eating, drinking or smoking in contaminated areas. Wash hands before eating.

Storage: store in cool, dry, well-ventilated area, removed from oxidising agents, heat sources and foodstuffs. Ensure containers are adequately labelled, protected from physical damage and sealed when not in use. Large storage areas should have appropriate ventilation systems.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ventilation:	Ensure adequate natural ventilation.
Exposure Standards:	An exposure standard has not been allocated to this product.
PPE:	Wear splash-proof goggles and PVC or rubber gloves. When using large quantities or where heavy contamination is likely, wear coveralls.

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point:	108^{o}C
Solubility in Water:	Soluble
Specific Gravity: (water=1)	1.06
Vapour Pressure:	20 mmHg @ 20C
Appearance:	Amber
Odour:	Citrus like smell
pH:	< 2
Physical State:	Liquid
Flammability:	Non Flammable

10. STABILITY AND REACTIVITY

Stability:	Product is stable in normal use
Reactivity:	Avoid mixing with alkaline products.
Decomposition Products:	None.

11. TOXICOLOGICAL INFORMATION

Health Hazard Summary:	Non-Toxic Irritant. This product may present a hazard with direct eye contact, or with prolonged and repeated skin contact. Chronic effects are not anticipated.
Eyes:	Irritant. Contact may result in irritation, pain and redness.
Inhalation:	Low Irritant. Over exposure at high levels may result in mucous membrane irritation of the upper respiratory tract (i.e. nose and throat) and coughing. However, due to the low vapour pressure, adverse health effects are not anticipated under normal conditions of use.
Skin:	Low Irritant. Prolonged and repeated contact may result in drying and de-fatting of the skin with rash and dermatitis.
Ingestion:	Non-Toxic Irritant. Ingestion of large doses may result in nausea, vomiting and gastrointestinal irritation.

Toxicity Data: Hydrogen Chloride Aqueous (Dilute Hydrochloric Acid).

Carcinogen: Does not contain any material known to cause cancer

12 ECOLOGICAL INFORMATION

Environment: This product is biodegradable and will normally be neutralised during use.

13 DISPOSAL CONSIDERATIONS

Disposal Considerations: The expended/neutralised product is biodegradable and is suitable for disposal via sewerage systems. Prior authorisation should be sought from the relevant water authority. Alternatively absorb with sand, vermiculite or similar and dispose of to an approved landfill site as a non-hazardous by-product.

14 TRANSPORT INFORMATION

Not Classified under EC Directives as dangerous goods for transportation by Road, Rail or Sea. Transport:

Hazard Class:	NA (Not Classified under EC Directives)
UN Number:	NA (Not Classified under EC Directives)
Packing Group:	NA (Not Classified under EC Directives)
Danger Labels:	**Xi** (Irritant)
Hazard identification:	NA (Not Classified under EC Directives
Transport Category:	NA (Not Classified under EC Directives

15 REGULATORY INFORMATION

Hazard:	Hazard Group A
Risk Phrases:	R22, R36/38
Safety Phrases:	S2, S24/25, S26, S37/39, S41, S43 (SCBA, WATER, WATER FOG, FOAM), S62
Danger labels:	Xi (Irritant)

16 OTHER INFORMATION

This product is intended for industrial use only and should be used in accordance with the manufacturer's instructions.

The product should not be circulated for more than 4 hours (most cleaning cycles will require 2 – 4 hours). The product should be used only at normal ambient temperatures ($0 – 30^0$ C). Higher temperatures may increase risk to personnel.