

# MATERIAL SAFETY DATA SHEET



**Description:** DESCALER AND CHEMICAL CLEANER  
**Revision Number:** 00  
**Document Number:** MSDS D003

## Company Details

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## 1. Product Identification

<b>Trade Name</b>	DESCALER AND CHEMICAL CLEANER	<b>Product code:</b>	D003
<b>Chemical Family</b>	Hydrochloric acid, surfactants, inhibitors.		
<b>Chemical Name</b>	Formulated chemical		
<b>Product Use</b>	Use when descaling is required with a cleaning action.		
<b>UN No:</b>	1789		

## 2. Composition

CAS No.	Hazardous Components	Approximate %	OSHA PEL
7647-01-0	Hydrochloric acid (30%)	40 - 50	CL 5 ppm
<b>EEC classification</b>	Corrosive (C), DESCALER AND CHEMICAL CLEANER		
<b>R Phrases</b>	R34/36/37/38, R35 DESCALER AND CHEMICAL CLEANER		

## 3. Hazards Identification

<b>Main hazard</b>	Corrosive
<b>Fire</b>	Non-flammable
<b>Inhalation</b>	Irritation of mucous membranes
<b>Skin contact</b>	Tingling, burning, redness
<b>Eye contact</b>	Burning, possible serious damage to eyes.
<b>Ingestion</b>	Burning of throat, stomach, possibly nausea & vomiting.

## 4. First Aid Measures

<b>Inhalation</b>	Move patient to fresh air and allow them some water
<b>Skin contact</b>	Immediately rinse area well with water. In the case of blisters, seek <b>medical attention</b> .
<b>Eye contact</b>	Flush eyes with water for at least 15 minutes. Irrigate eyes thoroughly while lifting eyelids and rolling eyeballs. Even if there is no pain, <b>seek medical attention</b> .
<b>Ingestion</b>	Rinse mouth with water, and allow patient as much water as possible. Do not induce vomiting, as this may cause further injury. Seek <b>medical attention</b> .

## 5. Fire Fighting Measures

<b>Prepared by:</b> Doug Cutter <b>Reviewed by:</b> Zanele Selala <b>Status:</b> Issued	<b>Approved by:</b> Doug Cutter <b>Revision Date:</b> 07 August 2018 <b>Issue Date:</b> 07 August 2018
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Extinguishing media	Product non-flammable. Use extinguishing agents suitable for surrounding fire.
Special hazard	Product will generate heat in contact with water.
Protective clothing	Approved self contained breathing apparatus should be utilised or equivalent equipment.

### 6. Accidental Release Measures

Personal precautions	Neutralise the product before disposal. The product will etch unsealed concrete. On uncoated metal surfaces, flush off with water to prevent rusting.
Environmental precautions	As per good environmental management practices, prevent contamination of watercourses or ground with large quantities of undiluted product
Small spills	Neutralise with SAF – EA NUETRALISER and flush residue with plenty of water.
Large spills	Dyke ahead of liquid spill. Prevent the discharge of large amounts of concentrated product into sewerage, and watercourses. Neutralise with SAF – EA NUETRALISER and dispose small quantities to effluent with plenty water.

### 7. Handling & Storage

Handling	Handle product with care – wear protective clothing and equipment.
Storage	Store in a cool dry area. Keep containers sealed.

### 8. Exposure Controls/Personal Protection

Workers should have access to an eye wash fountain.
If the specific application may result in splashing, safety goggles (VNC11 supplier – MSA) should be utilised.
Neoprene gloves (Technic 420-supplier MSA) should be utilised.
Work in a well-ventilated area or 6300 type mask/6059 cartridge (3M – supplier) should be utilised where ventilation isn't adequate.

### 9. Physical and Chemical Properties

Appearance	Clear purple/brown liquid
Density	1.10 – 1.15 g/cm <sup>3</sup>
Acidity	5.5 – 7.0 cm <sup>3</sup> KOH/cm <sup>3</sup>
Solubility (water)	100 %

### 10. Stability and Reactivity

Stability	Stable under normal conditions.
Incompatible materials	Product will generate heat in contact with water. Hydrochloric acid reacts explosively with potassium permanganate & violently with ammonium hydroxide, sodium hydroxide & sulphuric acid. Potentially dangerous reaction with sulphuric acid releases corrosive hydrogen chloride gas.

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Hazardous decomposition products	Hydrochloric acid emits toxic flumes of Cl <sup>-</sup> when heated to decomposition and possibly corrosive hydrogen chloride gas.
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### 11. Toxicological Information (based on HCL)

Toxicity	lhl (rat) LD50: 3124 ppm, Oral (rbt) 900 mg/kg
Skin & eye contact	Corrosive to skin and eye contact.
Chronic toxicity	Prolonged exposure may cause erosion and discoloration of exposed teeth, chronic bronchitis and gastritis.
Carcinogenicity	No evidence of carcinogenic properties
Mutagenicity	Mutation data reported.
Teratogenicity	Teratogen effects reported.

### 12. Ecological Information (based on HCL)

Aquatic toxicity – rainbow trout	Acidification may be fatal to aquatic organisms.
Aquatic toxicity – daphnia	Acidification may be fatal to aquatic organisms.
Aquatic toxicity – algae	Acidification may be fatal to plants and other living organisms.
Biodegradability	Not expected to biodegrade (based on HCL), when neutralised salt and water is formed, which is harmless to aquatic environment.
Bio accumulation	There's a no possibility of bio accumulation but can lower the pH which can be fatal to aquatic organisms.

### 13. Disposal Considerations

Disposal method	Neutralise the product before disposing of it using SAF – EA NUETRALISER for small quantities.
First neutralise the product with SAF – EA NUETRALISER before containing, flush area with water. Dispose as per agreed local government method for large quantities.	
Disposal of packaging	Recycle or provide to drum collectors or recovers.

### 14. Transport Information

UN No:	1789
Substance identity no	D003
ADR/RID class	Class 8: Corrosive liquid
IMDG – packaging group	II/III
Marine Pollutant	No, but toxic to aquatic organisms.
IMO/IMDG Classification	Class 8: Corrosive liquid
IATA Classification	Class 8: Corrosive liquid

### 15. Regulatory Information

EEC-hazard classification	Corrosive {C}
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Risk phrases	R34/36/37/38, R35
Safety phrases	S1/2, S35/37/39

## 16. Other Information

References: SABS 0265: 1999, SABS 0228: 1995, ISO SABS 11014-1: 1994, M.S.D.S (Suppliers of raw's)

**EMERGENCY NUMBERS: 011 406 4000 / 082 412 2298**

The information in this MSDS is based on current knowledge and experience at the date of publication. This MSDS summarises our best knowledge of the health and safety hazard information of the product and is intended only as a guide to the appropriate precautionary handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification of the product. The data relates only to the specific product designated, and does not relate to use of the product in combination with any other material or use of the product in any process. The data is not intended to constitute performance information concerning the product. No express warranty, or implied warranty of merchantability for fitness for a particular purpose is made with respect to the product, its composition, its safety or the information contained in this MSDS.

### APPENDIX A

Revision Date (dd/mm/yy)	Issued By	Revision History		Revision No.
		Description	DCN No.	
07/082018	Operations Director	New Issue	MSDS D003	00

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