
1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product identifier

Product name DYNAMIC DESCALER - HCL
Synonym(s) 20 LITRE DYNAMIC DESCALER HCL BASED • 209 LITRE DYNAMIC DESCALER HCL BASED • NSN 6850/15493959 (20 L) • NSN 6850/15493960 (209 L)

1.2 Uses and uses advised against

Use(s) DESCALING AGENT

1.3 Details of the supplier of the product

Supplier name BERALON PTY LTD
Address Unit 1, 4 Bearing Road, Seven Hills, NSW, 2147, AUSTRALIA
Telephone (02) 9624 8011
Fax (02) 9624 5760
Email davidm@beralon.com
Website www.beralon.com

1.4 Emergency telephone number(s)

Emergency (02) 9624 8011

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA

GHS classification Skin Corrosion/Irritation: Category 1B

2.2 Label elements

Signal word DANGER

Pictograms



Hazard statement(s)

H314 Causes severe skin burns and eye damage.

Prevention statement(s)

P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P264 Wash thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response statement(s)

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTRE or doctor/physician.
P321 Specific treatment is advised - see first aid instructions.
P363 Wash contaminated clothing before reuse.

PRODUCT NAME DYNAMIC DESCALER - HCL**Storage statement(s)**

P405 Store locked up.

Disposal statement(s)

P501 Dispose of contents/container in accordance with relevant regulations.

2.3 Other hazards

No information provided.

3. COMPOSITION/ INFORMATION ON INGREDIENTS

3.1 Substances / Mixtures

Ingredient	Identification	Classification		Content
		GHS	Risk	
HYDROCHLORIC ACID	CAS: 7647-01-0 EC: 231-595-7	Skin Corr. 1B, H314 STOT SE 3, H335	C;R34 Xi;R37	<10%
WATER	CAS: 7732-18-5 EC: 231-791-2	Not Available	Not Available	>60%

4. FIRST AID MEASURES

4.1 Description of first aid measures

Eye If in eyes, hold eyelids apart and flush continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre, a doctor, or for at least 15 minutes.

Inhalation If inhaled, remove from contaminated area. Apply artificial respiration if not breathing.

Skin If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by a Poisons Information Centre or a doctor.

Ingestion For advice, contact a Poison Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). If swallowed, do not induce vomiting. Also give water to drink.

First aid facilities Eye wash facilities and safety shower are recommended.

4.2 Most important symptoms and effects, both acute and delayed

See Section 11 for more detailed information on health effects and symptoms.

4.3 Immediate medical attention and special treatment needed

Treat symptomatically.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing media

Use an extinguishing agent suitable for the surrounding fire.

5.2 Special hazards arising from the substance or mixture

Non flammable. May evolve toxic gases if strongly heated.

5.3 Advice for firefighters

Treat as per requirements for surrounding fires. Evacuate area and contact emergency services. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire. Use waterfog to cool intact containers and nearby storage areas.

5.4 Hazchem code

2R

2 Water Fog (or fine water spray if fog unavailable)

R Full protective equipment including Self Contained Breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear Personal Protective Equipment (PPE) as detailed in Section 8 of this SDS. Clear area of all unprotected personnel. Ventilate area where possible. Contact emergency services where appropriate.

6.2 Environmental precautions

Prevent product from entering drains and waterways.

6.3 Methods of cleaning up

Contain spillage, then cover/absorb spill with non-combustible absorbent material (vermiculite, sand, or similar), collect and place in suitable containers for disposal.

6.4 Reference to other sections

See Sections 8 and 13 for exposure controls and disposal.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well ventilated area, removed from incompatible substances and foodstuffs. Ensure containers are adequately labelled, protected from physical damage and sealed when not in use.

7.3 Specific end use(s)

No information provided.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Exposure standards

Ingredient	Reference	TWA		STEL	
		ppm	mg/m ³	ppm	mg/m ³
Hydrogen chloride (Hydrochloric acid)	SWA (AUS)	5	7.5	--	--

Biological limits

No biological limit values have been entered for this product.

8.2 Exposure controls

Engineering controls Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical extraction ventilation is recommended. Maintain vapour levels below the recommended exposure standard.

PPE

- Eye / Face** Wear splash-proof goggles.
- Hands** Wear PVC or rubber gloves.
- Body** When using large quantities or where heavy contamination is likely, wear coveralls. In a laboratory situation, wear a laboratory coat.
- Respiratory** Where an inhalation risk exists, wear a Type B (Inorganic gases and vapours) respirator.



9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	BROWN LIQUID
Odour	FRUITY ODOUR
Flammability	NON FLAMMABLE
Flash point	NOT RELEVANT
Boiling point	> 100°C
Melting point	< 0°C
Evaporation rate	2.0 (Butyl acetate = 1)

9.1 Information on basic physical and chemical properties

pH	< 2
Vapour density	1.27 (Air = 1)
Specific gravity	1.09
Solubility (water)	SOLUBLE
Vapour pressure	20 mm Hg @ 20°C
Upper explosion limit	NOT RELEVANT
Lower explosion limit	NOT RELEVANT
Partition coefficient	NOT AVAILABLE
Autoignition temperature	NOT AVAILABLE
Decomposition temperature	NOT AVAILABLE
Viscosity	NOT AVAILABLE
Explosive properties	NOT AVAILABLE
Oxidising properties	NOT AVAILABLE
Odour threshold	NOT AVAILABLE

9.2 Other information

% Volatiles	> 60 % (Water)
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10. STABILITY AND REACTIVITY

10.1 Reactivity

Carefully review all information provided in sections 10.2 to 10.6.

10.2 Chemical stability

Stable under recommended conditions of storage.

10.3 Possibility of hazardous reactions

Polymerization will not occur.

10.4 Conditions to avoid

Avoid heat, sparks, open flames and other ignition sources.

10.5 Incompatible materials

Incompatible with oxidising agents (eg. hypochlorites) and alkalis (eg. sodium hydroxide). Also incompatible with aluminium.

10.6 Hazardous decomposition products

May evolve toxic gases if heated to decomposition.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Health hazard summary	Slightly corrosive - irritant. This product has the potential to cause adverse health effects with over exposure. Use safe work practices to avoid eye or skin contact and inhalation. Overexposure may result in irritation to the eyes, skin and respiratory system.	
Eye	Slightly corrosive - irritant. Contact may result in irritation, lacrimation, pain, redness, conjunctivitis and possible burns.	
Inhalation	Slightly corrosive - irritant. Over exposure may result in irritation of the nose and throat, with coughing.	
Skin	Slightly corrosive. Contact may result in irritation, redness, pain, rash, dermatitis and possible burns.	
Ingestion	Slightly corrosive. Ingestion may result in ulceration and burns to the mouth and throat, nausea, vomiting, abdominal pain and diarrhoea.	
Toxicity data	HYDROCHLORIC ACID (7647-01-0)	
	LC50 (inhalation)	1108ppm/1 hour (human - respiratory irritation)
	LCLo (inhalation)	1300 ppm/30 minutes (human)
	LD50 (ingestion)	900 mg/kg (rabbit)
	LDLo (ingestion)	81 mg/kg (man)
	TCLo (inhalation)	450 mg/m ³ /1 hour (pregnant rat - teratogenic effects)

12. ECOLOGICAL INFORMATION

12.1 Toxicity

No information provided.

12.2 Persistence and degradability

Biodegradable. It is also known that these compounds are quickly broken down or biodegraded into compounds such as carbon dioxide (Co2) and water (H2O).

12.3 Bioaccumulative potential

While no data is currently available on the ecology of this product, it is known that these chemical compounds do not bio-accumulate in animal or plant tissues.

12.4 Mobility in soil

No information provided.

12.5 Other adverse effects

No information provided.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Waste disposal Wearing the protective equipment detailed above, neutralise to pH 6-8 by SLOW addition to a saturated sodium bicarbonate solution or similar basic solution. Dilute with excess water and flush to drain. Waste disposal should only be undertaken in a well ventilated area.

Legislation Dispose of in accordance with relevant local legislation.

14. TRANSPORT INFORMATION

CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE



	LAND TRANSPORT (ADG)	SEA TRANSPORT (IMDG / IMO)	AIR TRANSPORT (IATA / ICAO)
14.1 UN Number	1789	1789	1789
14.2 Proper Shipping Name	HYDROCHLORIC ACID	HYDROCHLORIC ACID	HYDROCHLORIC ACID
14.3 Transport hazard class	8	8	8
14.4 Packing Group	III	III	III

14.5 Environmental hazards No information provided

14.6 Special precautions for user

Hazchem code	2R
GTEPG	8A1
EMS	F-A, S-B

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Poison schedule Classified as a Schedule 5 (S5) Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

Classifications Safework Australia criteria is based on the Globally Harmonised System (GHS) of Classification and Labelling of Chemicals.

The classifications and phrases listed below are based on the Approved Criteria for Classifying Hazardous Substances [NOHSC: 1008(2004)].

Hazard codes C Corrosive

PRODUCT NAME DYNAMIC DESCALER - HCL

Risk phrases	R34	Causes burns.
Safety phrases	S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
	S45	In case of accident or if you feel unwell seek medical advice immediately (show the label where possible).
Inventory listing(s)	AUSTRALIA: AICS (Australian Inventory of Chemical Substances) All components are listed on AICS, or are exempt.	

16. OTHER INFORMATION

Additional information The manufacturer reports that this product is no longer classified as hazardous when diluted for use (1:3 with water).

ACIDS: When mixing acids with water (diluting), caution must be taken as heat will be generated which causes violent spattering. Always add a small volume of acid to a large volume of water, NEVER the reverse.

RESPIRATORS: In general the use of respirators should be limited and engineering controls employed to avoid exposure. If respiratory equipment must be worn ensure correct respirator selection and training is undertaken. Remember that some respirators may be extremely uncomfortable when used for long periods. The use of air powered or air supplied respirators should be considered where prolonged or repeated use is necessary.

PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:

The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

HEALTH EFFECTS FROM EXPOSURE:

It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a ChemAlert report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

Abbreviations

ACGIH	American Conference of Governmental Industrial Hygienists
CAS #	Chemical Abstract Service number - used to uniquely identify chemical compounds
CNS	Central Nervous System
EC No.	EC No - European Community Number
GHS	Globally Harmonized System
IARC	International Agency for Research on Cancer
LC50	Lethal Concentration, 50% / Median Lethal Concentration
LD50	Lethal Dose, 50% / Median Lethal Dose
mg/m ³	Milligrams per Cubic Metre
OEL	Occupational Exposure Limit
PEL	Permissible Exposure Limit
pH	relates to hydrogen ion concentration using a scale of 0 (highly acidic) to 14 (highly alkaline).
ppm	Parts Per Million
REACH	Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals
STEL	Short-Term Exposure Limit
STOT-RE	Specific target organ toxicity (repeated exposure)
STOT-SE	Specific target organ toxicity (single exposure)
SUSMP	Standard for the Uniform Scheduling of Medicines and Poisons
SWA	Safe Work Australia
TLV	Threshold Limit Value
TWA	Time Weighted Average

PRODUCT NAME DYNAMIC DESCALER - HCL**Revision history**

Revision	Description
1.1	Standard SDS Review Standard SDS Review
1.0	Initial SDS Creation
0.2	Standard SDS Review Standard SDS Review

Report status

This document has been compiled by RMT on behalf of the manufacturer, importer or supplier of the product and serves as their Safety Data Sheet ('SDS').

It is based on information concerning the product which has been provided to RMT by the manufacturer, importer or supplier or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer, importer or supplier.

While RMT has taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, RMT accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS.

Prepared by

Risk Management Technologies
5 Ventnor Ave, West Perth
Western Australia 6005
Phone: +61 8 9322 1711
Fax: +61 8 9322 1794
Email: info@rmt.com.au
Web: www.rmt.com.au.

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