

# Material Safety Data Sheet-Dynamic Descaler

Revision Date: 19 June 2010

## 1- PRODUCT IDENTIFICATION

**Product Name: Dynamic Descaler:**

Manufactured by:

Precision Dynamics, Inc. P.O. Box 1595 Burleson, TX 76097  
Phone Number for Information: IDD 1-817-447-9898  
Emergency Phone Number: IDD 1-800-535-5053

Importer: Beralon PTY Ltd (CAN: 002-160-796)  
Unit 1, 4 Bearing Road  
Seven Hills NSW 2147  
Phone Number Information: 02 9624 8011  
Emergency Phone Number 0419 613 028

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## 2- COMPOSITION

<u>Ingredient</u>	<u>Percent Range</u>	<u>UN Number</u>
Aqueous Hydrochloric acid %	Less than 10% w/w	1789

### **Other Ingredients not consider hazardous**

All chemicals in Dynamic Descaler are listed in the Australian Inventory of chemical Substances, and therefore there is no requirement for notification as a new chemical to NICNAS.

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## 3- HAZARD IDENTIFICATION

According to NOHSC's Approval Criteria for Classifying Hazardous Substances [NOHSC: 1008 (1999)]

### **Ingredients:**

**Dynamic Descaler contains over 2.9% aqueous hydrochloric acid on a weight for weight basis so therefore is classified as a hazardous substance. When the Dynamic is used with water it's 9.4% of HCL is divided by a multiple of 4 which comes to 2.35% less than 2.9% with water as stated as a hazardous product.**

**Note:** Aqueous Hydrochloric Acid at concentrations over 2.9% is classified as an Irritant (XI) R36/37/38 Irritating to eyes, respiratory system and skin.

All other components of Dynamic Descaler are non-hazardous according to Approved Criteria for Classifying Hazardous Substances NOSHC 1008 (1999).

**Carcinogenicity:** Not a carcinogen

**Primary Routes of Entry:** Skin and eye contact are the primary routes of exposure to this product.

**HMIS:** 1 Health 0 Flammability 1 Reactivity

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## Hazardous And Other Disclosed Ingredients

Percent Exposure Limits-TWA

<u>Range</u>	<u>ACGIH/OSHA(where est.)</u>	<u>UN Number</u>	<u>Chemical Name</u>
>5-10	C 5/C 5ppm	1789	Hydrochloric Acid %

Exposure Limit Abbreviations

TWA=Time Weighted Average C=Ceiling

S=Short Term Exposure Sk=Skin

S=Soluble Compound Fu=Fumes

Insol=Insoluble Compounds Du=Dust I=IARC Resp=Respirable

## Acute Effects

**Eye contact:** This Product is irritating to eyes and may cause damage if not rinse with water. Any time the eyes are exposed to cleaning solutions they should immediately be rinse with water for 15 minutes.

**Skin exposure:** This product may cause tingling or a slight burning sensation of the skin with prolonged exposure or to pre-existing cuts and abrasions. Product should be rinsed from skin immediately to avoid irritation.

**Ingestion:** May cause damage to the mouth esophagus and stomach, vomiting, headache, and other medical problems.

**Inhalation:** May cause coughing, sneezing, and minor upper respiratory irritation.

## Target Organs And Medical Conditions

Overexposure to some hazardous ingredients in this product has been found to affect certain body organs and systems in experimental animals and/or humans. These include: Gastrointestinal Tract, Mucous Membrane, Skin, Eyes, and, Respiratory System.

## Chronic Effects

None known

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## **4- FIRST AID MEASURES**

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**Emergency and First aid Procedures:**

**Eyes & Skin:** Flush with water for 15 minutes, if irritation persists get medical attention.

**Ingestion:** Do Not induce vomiting. Drink water, milk magnesia. Get medical attention.

**Inhalation:** move to fresh air.

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## **5- FIRE FIGHTING MEASURES**

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**Flash Point:** None to B.P. F (CC)

**Flammable Limits:** N/A

**LEL:** N/A

**UEL:** N/A

**Extinguishing Media:**

Use water fog, foam, dry chemical or carbon dioxide.

**Special Fire Fighting Procedures:**

Wear an approved self-contained breathing apparatus and protective clothing with full face piece operated in the positive pressure demands mode and full body protection. Use water to cool fire-exposed containers, structures, and to protect personnel. Irritating and/or toxic gases may be emitted upon the product's decomposition.

**Unusual Fire and Explosive Hazards:**

Can react with chemically reactive metals such as aluminum, zinc, magnesium, etc., to release hydrogen gas, which is combustible..

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## **6- ACCIDENTAL RELEASE MEASURES**

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**Steps to be taken in Case Material is Released or Spilled:** Where suitable protective clothing including goggles and overalls.

**Small Spill:** cover contaminated area with sodium bicarbonate or soda ash and add water if necessary to form a slurry.

**Large Spill:** dike to prevent spreading and neutralize as above. Dispose of the water produce as solid waste in accord with local regulations.

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## **7- HANDLING AND STORAGE**

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**Handling:**

As with any industrial cleaning compound proper eye protection is recommended when handling.

**Storage:**

Store in a cool, dry location away from direct sunlight, sources of intense heat, or where freezing may occur. Store material in an acid proof container. Keep container away from incompatible material.

**Work/Hygienic Practices:**

Wash hands before eating. Launder contaminated clothing before re-use.

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## **8-EXPOSURE CONTROLS**

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**Respiratory Protection:** None required, if used as directed in a ventilated area.

**Protective Gloves:** Rubber Gloves recommended if any pre-existing skin conditions such as cuts and abrasions.

**Ventilation:** Normal ventilation is adequate. No extra ventilation is required unless used in confined space with no ventilation.

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**Eye Protection:** Proper eye protection is recommended- goggles or a face shield.

**Other Protective Clothing or EQUIPMENT:** Impervious clothing and boots.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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<b>Appearance:</b>	Brown Liquid		
<b>Specific Gravity:</b>	1.09	<b>Water=</b>	1
<b>Solubility in Water:</b>	100% complete		
<b>Vapor Pressure:</b>	20mm Hg		
<b>Vapor Density:</b>	1.27	<b>Air:</b>	1
<b>Evaporation Rate:</b>	2.0	<b>Butyl Acetate=</b>	1 <b>VOC CONTENT:</b> N/D
<b>Boiling Point:</b>	>212 (>100)	F (C)	<b>Ph:</b> <2
<b>Melting Point:</b>	N/D	F (C)	<b>Odour:</b> Fruity

N/A= Not Applicable N/D= Not Determined

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## 10- STABILITY AND REACTIVITY

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**Stability:** Stable

**Hazardous Polymerization:** Will not occur

**Incompatibility:** Alkali (caustic) materials and aluminum. Do not use this product on aluminum surfaces.

**Conditions to Avoid:** Will react with strong oxidizing agents e.g. bleach.

**Hazardous Decomposition Product:** Flammable Hydrogen gas when reacted with certain metals.

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## 11. TOXICOLOGY INFORMATION

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While no data is currently available on the toxicology of this formulation as a whole empirically we know that the components of DYNAMIC DESCALER ARE NOT mutagenic, teratogenic, carcinogenic, or genotoxic.

**Medical Conditions Generally Aggravated by Exposure:** Pre-Existing eye, skin, & respiratory disorders may be aggravated with contact.

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## 12. ECOLOGICAL INFORMATION

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**Biodegradability:** Biodegradable.

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. It is also known that these compounds are quickly broken down or biodegraded into compounds such as carbon dioxide (Co2) and water (H2O). Studies are currently under way to support these findings in Dynamic Descaler.

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## DISOSAL CONSIDERATIONS

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**Waste Disposal Method:** Dispose of in accordance with federal, state, and, local regulations.

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## **14- TRANSPORT INFORMATION**

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As Dynamic Descaler can react with aluminum this product is considered corrosive for shipping purpose according to the Australian Dangerous Goods Code.

**Proper Shipping Name:** Corrosive, acidic, inorganic, N.O.S.

**Hazard Classification:** Corrosive

**Hazard Class:** 8

**UN Identification:** UN 1789

**Packaging:** Group 3

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## **15- REGULATORY INFORMATION**

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**National Occupational Health & Safety Commission:** This MSDS has been compiled according to NOHSC's Approved Criteria for classifying Hazardous Substances [NOHSC: 1008 (1999)], Commonwealth of Australia.

**TSCA Inventory:** The components of this product, are listed on, or are exempt from the Toxic Substance Control Act (TSCA) Chemical Inventory.

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## **16- OTHER INFORMATION**

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**Disclaimer:** The information and recommendations contained in this Material Safety Data Sheet have been compiled from sources believed to be reliable and to represent the most reasonable current opinion on the subject when the MSDS was prepared. No warranty, guarantee, or representation is made as to the correctness or sufficiency of the information. The user of this product must decide what safety measures are necessary to safely use this product according to all federal, state, and local regulations.

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