

MATERIAL SAFETY DATA SHEET



SOLUTIONS
SEALERS FOR STONE & TILE
The Next Generation of Stone Care Products

PRODUCT: D-GREASE
D-Wax Alkaline Cleaner



Date of Issue: SEPTEMBER 2010

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SECTION 1 – STATEMENT OF CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

SUPPLIER:	Solutions – Sealers for Stone & Tile.		
ADDRESS:	2/14 Textile Avenue, Warana, QLD 4575, Australia.		
Trade Name:	“D-GREASE” - HEAVY DUTY DEGREASER		
TELEPHONE:	1300 4 STONE (78663)	FAX:	(07) 5437 7715
AH EMERGENCY TELEPHONE:	13 1126 in Australia	ABN:	25 128 656 082.
Substance:	floor stripper	Product Use:	Heavy duty cleaner, wax remover and degreaser.
Creation Date:	SEPT 2010	Revision Date:	SEPT 2015
Product Code:			

SECTION 2 – HAZARDS IDENTIFICATION

- This product is classified as **HAZARDOUS (CORROSIVE/HARMFUL)** according to criteria of the National Occupational Health and Safety Commission Australia.
- This product is **classified as Dangerous Goods** according to the Australian Dangerous Goods (ADG) Code.
- This product is a **scheduled 6 Poison** according to the SUSDP.

Approved Criteria C-CORROSIVE, Xn - HARMFUL

Classification



R35 - Causes severe burns.
R20/21/22 - Harmful by inhalation, in contact with skin and if swallowed.
R37 - Irritating to respiratory system.



S1/2 - Keep locked up and out of the reach of children.
S24/25 - Avoid contact with skin and eyes.
S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.
S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label wherever possible).

UN Number	1760	ADG Classification	3
Shipping Name	CORROSIVE LIQUID N.O.S.	ADG Subsidiary Risk	None allocated
Hazchem Code	2X	Packing Group	III
SUSDP Classification	S6 POISON		
EMERGENCY OVERVIEW			
Colour	caramel coloured	Odour	solvent odour
Physical Description	Liquid	Viscosity	non-viscous
Major Health Hazards	None known		

SECTION 3 – COMPOSITION AND INFORMATION ON INGREDIENTS

Ingredients determined not to be hazardous are present in concentrations that do not exceed the relevant cut-off concentrations as found from NOHSC publication "List of Designated Hazardous Substances" or have been found NOT to meet the criteria of a hazardous substance as defined in the NOHSC publication "Approved Criteria for Classifying Hazardous Substances".

Ingredients:	CAS Number:	Proportion:	Exposure Standards TWA	Exposure Standards STEL

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potassium hydroxide	1310-58-3	10 – 30 % w/w	2 mg/m ³ Peak	Peak STEL 2 mg/m ³
Alkaline salts	various	< 10% w/w	not set	not set
Monoethanolamine	141-43-5	10 - 30% w/w	3 ppm 7.5 mg/ m ³	6 ppm (15 min) 15 mg/ m ³
Ethylene glycol monobutyl ether	111-76-2	10 - 30% w/w	25ppm (121 mg/m ³)	not set
Ingredients determined to be non-hazardous	various	< 10% w/w	not set	not set
Water.	7732-18-5	To 100% w/w	not set	not set

The TWA exposure value is the Time Weighted Average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The STEL (Short Term Exposure Limit) is an exposure value that should not be exceeded for more than 15 minutes and should not be repeated for more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak" is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

SECTION 4 – FIRST AID MEASURES

Scheduled Poisons	Poisons Information Centre in each Australian State capital city or in Christchurch, New Zealand can provide additional assistance for scheduled poisons. (Phone Australia 131126 or New Zealand 0800 764 766).
First Aid Facilities	Normal washroom facilities.
Skin contact	Wash skin with plenty of water. Remove contaminated clothing and wash before re-use. Seek medical advice (e.g. doctor) if irritation, burning or redness develops.
Eye contact	Immediately irrigate with copious quantities of water for at least 20 minutes. Eyelids to be held open. Seek medical advice (e.g. ophthalmologist).
Ingestion	Do NOT induce vomiting. Do NOT attempt to give anything by mouth to an unconscious person. Rinse mouth thoroughly with water immediately. Give water to drink. If vomiting occurs, give further water to achieve effective dilution. Seek medical advice (e.g. doctor).
Inhalation	Remove victim to fresh air away from exposure. Obtain medical attention if symptoms occur.
Advice to Doctor	All treatments should be based on observed signs and symptoms of distress of the patient. Poisons Information Centre in each Australian State capital city or in Christchurch, New Zealand can provide additional assistance for scheduled poisons.
Aggravated Medical Conditions	None known.

SECTION 5 – FIRE FIGHTING MEASURES

Fire and Explosion Hazards	Non flammable liquid. However, on evaporation of the aqueous component, the residual material may burn.
Extinguishing Media	Carbon Dioxide, foam, dry powder.
Fire Fighting	Keep containers exposed to extreme heat cool with water spray. Fire fighters to wear self-contained breathing apparatus if risk of exposure to products of combustion or decomposition.
Flash Point	None

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SECTION 6 – ACCIDENTAL RELEASE MEASURES

Emergency Procedures

HAZCHEM CODE : 2X
2 = water fog – in the absence of fog, a fine spray may be used.
X = No risk of violent explosion, Full protective clothing, Contain.
Shut off engine and electrical equipment and leave off.
Move people from immediate area; keep upwind.
Consider initial evacuation distance of 100 metres in all directions.
Stop leak if safe to do so.
Send messenger to notify fire brigade and police.
Tell them location, material quantity, UN number and emergency contact.
Indicate condition of vehicle and damage or injuries observed.
Warn other traffic.

Occupational Release

Minor spills do not normally need any special clean-up measures. In the event of a major spill, prevent spillage from entering drains or water courses. Wear appropriate protective equipment as in section 8 below to prevent skin and eye contamination. Spilt material may result in a slip hazard and should be absorbed into dry, inert material (e.g. sand, earth or vermiculite), which then can be put into appropriately labelled drums for disposal by an approved agent according to local conditions. Residual deposits will remain slippery. Wash area down with excess water. If required, neutralize with acid. If contamination of sewers or waterways has occurred advise the local emergency services. In the event of a large spillage notify the local environment protection authority or emergency services.

SECTION 7 – HANDLING AND STORAGE

Handling

Avoid contact with incompatible materials. When handling, DO NOT eat, drink or smoke. Keep containers closed at all times. Avoid physical damage to containers. Always wash hands with water after handling.

Storage

Store in a cool, dry, place with good ventilation. Avoid storing in aluminium and light alloy containers. Store away from incompatible materials (Section 10). Keep containers closed at all times – check regularly for leaks.

SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits

National Occupational Exposure Limits, as published by National Occupational Health & Safety Commission:

Time-weighted Average (TWA): None established for product.

See Section 3 for each component.

Short Term Exposure Limit (STEL): None established for product.

See Section 3 for each component.

Engineering Controls

Ensure ventilation is adequate to maintain air concentrations below exposure standards. Avoid generating mists of the product. Use only in a well-ventilated area. Ensure airflow, where this product is used, is directed away from the operators.

Personal Protective Equipment

This product is classified as a hazardous cleaning liquid. Use good occupational work practice. The use of protective clothing and equipment depends upon the degree and nature of exposure. Final choice of appropriate protection will vary according to individual circumstances i.e. methods of handling or engineering controls and according to risk assessments undertaken. The following protective equipment should be available;

Eye Protection



The use of goggles or face shield is recommended to handle in quantity, cleaning up spills, decanting, etc. Contact lenses pose a special hazard ; soft lenses may absorb irritants and all lenses concentrate them.

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Skin Protection



Wear chemical resistant gloves. Overalls, work boots and elbow length gloves are recommended for handling the concentrated product (as per AS/NZS 2161, or as recommended by supplier) to handle in quantity, cleaning up spills, decanting, etc.

Protective Material

Types

Material suitable for detergent contact – Butyl rubber, Neoprene, PVC, and Nitrile.

Respirator



Where high contaminant spray mist or vapour levels exist, ie, approaching the exposure limit, the following additional equipment is required: For short elevated exposures, eg, spillages:- Appropriate organic vapour cartridge respirator as per the requirements of AS/NZS 1715 and AS/NZS 1716 (Respiratory protective devices). For prolonged exposure and confined spaces:- full face air supplied or self contained breathing apparatus (if vapour levels exceed the Exposure Limit by more than ten times, air supplied apparatus should be used).

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical State	non-viscous liquid	Colour	caramel
Odour	characteristic odour	Specific Gravity	1.02 - 1.06 @ 25 °C
Boiling Point	IBP: 100 °C	Freezing Point	Approximately 0 °C
Vapour Pressure	Not available	Vapour Density	Not available
Flash Point	not flammable	Flammable Limits	Not available
Water Solubility	Miscible in all proportions	pH	> 13.0 neat
Volatile Organic Compounds (VOC)	Not available	Coefficient of Water/Oil	
Viscosity	Not available	Distribution	Not available
Evaporation Rate	Not available	Odour Threshold	Not available
		Per Cent Volatile	Ca 85% v/v

SECTION 10 – STABILITY AND REACTIVITY

Chemical Stability	Stable at normal temperatures and pressure.
Conditions to Avoid	Attacks many reactive metals (aluminium/magnesium/zinc alloys) releasing highly flammable gas (hydrogen) which generates fire or explosion hazards. Reacts slowly with ambient air (particularly carbon dioxide) which may cause certain insoluble salts to form in solutions. In the presence of acids, exothermic (heat producing) reaction may occur. Product can decompose on combustion to form Silica, Carbon Monoxide, Carbon Dioxide, and other possibly toxic gases and vapours on burning.
Incompatible Materials	Incompatible with oxidizing agents.
Hazardous Decomposition Products	When involved in a fire, this product may generate obnoxious and toxic fumes; carbon oxides / nitrogen oxides (Nox).
Hazardous Reactions	None known.

SECTION 11 – TOXICOLOGICAL INFORMATION

PRODUCT MIXTURE INFORMATION

Local Effects Corrosive and harmful: eye, skin, inhalation and ingestion.

Target Organs Eyes, mucous membranes, skin, CNS.

POTENTIAL HEALTH EFFECTS

Ingestion

short term exposure This product containing ingredient Potassium Hydroxide may cause burning to the mouth, throat, gastrointestinal tract on ingestion. This product containing ethylene glycol mono butyl ether may cause headache, dizziness, light-headedness, confusion, and

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long term exposure	passing out, and may damage the liver and kidneys on ingestion. No information available.
Skin contact	
short term exposure	This product containing ingredient Potassium Hydroxide may cause burns to the skin. Skin contact with this product containing ingredient ethylene glycol monobutyl ether may cause central nervous system effects.
long term exposure	Prolonged skin contact with this product containing ingredient Potassium Hydroxide may induce eczematoid dermatitis. Prolonged skin contact with this product containing ingredient ethylene glycol monobutyl ether may induce possible red blood cell changes (moderate exposure), kidney or liver damage (high exposure).
Eye contact	
short term exposure	This product containing ingredient Potassium Hydroxide may cause burns to the eye.
long term exposure	No information available.
Inhalation	
short term exposure	Aerosols of this product containing ingredient Potassium Hydroxide are corrosive to the respiratory system. Aerosols of this product containing ingredient ethylene glycol monobutyl ether may cause central nervous system effects if inhaled.
long term exposure	Possible red blood cell changes (moderate exposure), kidney or liver damage (high exposure).
Carcinogen Status	
NOHSC	No significant ingredient is classified as carcinogenic by NOHSC.
NTP	No significant ingredient is classified as carcinogenic by NTP.
IARC	No significant ingredient is classified as carcinogenic by IARC.
Medical conditions aggravated by exposure	No information available.

CLASSIFICATION OF INDIVIDUAL INGREDIENTS

NOTE : This information relates to each individual ingredient, when evaluated as pure undiluted chemical. See Section 3 for actual proportions present in this product.

Ingredients	R-Phrases.
Potassium hydroxide	R35.
ethylene glycol mono butyl ether	R20/21/22, R37
Monoethanolamine	R20, R36/37/38

Monoethanolamine 100%

Irritation Data	Harmful by inhalation, in contact with skin and if swallowed. Irritating to eyes, respiratory system and skin. A severe eye irritant. Contamination of eyes can result in permanent injury. Material is irritant to the mucous membranes of the respiratory tract (airways).
Toxicity Data	Available evidence from animal studies indicate that repeated or prolonged exposure to this material could result in effects on the liver and kidneys. Oral LD50 (rat): 1,720 mg/kg. Oral LD50 (mice): 700 mg/kg. Dermal LD50 (rabbit): 1 mL/kg. Inhalation LC50 (mice): >2,420 mg/m ³ /2hr. SKIN: Moderate irritant (rabbit). EYES: Severe irritant (rabbit).
Local Effects	Corrosive: inhalation, skin, eye, ingestion
Target Organs	Skin, mucous membranes, eyes.
Acute Toxicity Level	Moderately Toxic: ingestion
Reproductive Effects	No available information.
Mutagenic Data	No available information.
Carcinogenic Data	Carcinogenicity studies in mice, dermally administered diethanolamine over a lifetime developed liver and kidney tumours. However, in similarly treated rats there was no evidence of carcinogenicity.

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ethylene glycol mono butyl ether (2-butoxy ethanol) 100%

Irritation Data	500 mg open skin-rabbit mild: 100mg eyes - rabbit severe: 100mg/24 hour(s) eyes – rabbit moderate.
Toxicity Data	The lethal oral dose of ethylene glycols in humans is approximately 1.4 ml/kg, which would be equivalent to approximately 100 ml of 100% 2-butoxyethanol for a 70 kg person. LD50 Rat oral 1.48 g/kg LD50 Mouse oral 1.2 g/kg LD50 Rabbit oral 0.32g/kg LD50 Guinea pig oral 1.2 g/kg LD50 Rabbit dermal 400 mg/kg Odour threshold Value: 0.10 ppm (detection), 0.35 ppm (recognition), IDLH Level : 700 ppm.
Local Effects	Irritant: inhalation, skin, eye.
Target Organs	Blood, central nervous system, kidneys.
Acute Toxicity Level	Toxic: inhalation, dermal absorption, ingestion.
Mutagenic Data	A statistically significant increase in mutations not generally observed in cell cultures at any concentration for a range of tests.
Reproductive Effects	May damage the developing foetus.

Potassium Hydroxide 100%

Irritation Data	Corrosive to skin – can cause burns. Corrosive to eyes – can cause permanent injury and possible loss of sight. Inhalation of dusts or mists of the solution can result in respiratory irritation and possible corrosive effects.
Toxicity Data	ANIMAL TOXICITY DATA : LD50 (rat, oral): 365 mg/kg Irritant Dose (rabbits,dermal): 50 mg/24 hr - severe skin irritant Irritant Dose (rabbits, ocular): 1 mg/24 hr - Moderate eye irritant
Local Effects	Corrosive: skin, eye, inhalation (of aerosol) and ingestion.
Target Organs	Skin, mucous membranes, eyes.
Reproductive Effects	No available information.
Acute Toxicity	Toxic : ingestion, skin, inhalation (of aerosol or dust).
Mutagenic Data	No available information.

SECTION 12 – ECOLOGICAL INFORMATION

Fish toxicity	None available for specific product. For Monoethanolamine: Harmful to aquatic organisms. Risk of bioaccumulation in an aquatic species is low. Log Octanol/Water Partition Coefficient: - 1.31 48hr EC50 (Daphnia magna): 33 mg/L. 96hr LC50 (fathead minnow): 125 mg/L.
Algae toxicity	None available for specific product
Invertebrates toxicity	None available for specific product.
Toxicity to Bacteria	None available for specific product
OECD Biological degradation	Individual components stated to be biodegradable.
General	Product miscible in all proportions with water. AS WITH ANY CHEMICAL PRODUCT, DO NOT DISCHARGE BULK QUANTITIES INTO DRAINS, WATERWAYS, SEWER OR ENVIRONMENT. Inform local authorities if this occurs.

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SECTION 13 – DISPOSAL CONSIDERATIONS

To dispose of quantities of undiluted product, refer to State Land Waste Management Authority. Transfer product residues to a labelled, sealed container for disposal or recovery. Waste disposal must be by an accredited contractor. As with any chemical, do not put down the drain in quantity. The small quantities contained in wash solutions (when used as directed) can generally be handled by conventional sewage systems, septics, and grey water systems. For larger scale use, eg. Commercial laundry operations, a recycled water system is often recommended, or Trade Waste License obtained for disposal to sewer.

SECTION 14 – TRANSPORT INFORMATION

UN Number	1760	ADG Classification	Class 8
Shipping Name	CORROSIVE LIQUID, N.O.S.	ADG Subsidiary Risk	none allocated
Hazchem Code	2X	Packing Group	III
Packaging Method	3.8.8	Special Provisions	SP184

Segregation	This material is a Class 8 Corrosive Substance according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. Class 8 - Corrosive Substances are incompatible in a placard load with any of the following: Class 1, Explosives, Class 4.3, Dangerous When Wet Substances, Class 5.1, Oxidizing Agents & Class 5.2 Organic Peroxides, Class 6, Toxic Substances (where the Toxic substances are cyanides and the corrosives are acids), Class 7, Radioactive Substances, Class 8, Corrosive Substances (concentrated strong acid is to be segregated from strong alkali), and are incompatible with food and food packaging in any quantity.
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SECTION 15 – REGULATORY INFORMATION

AICS	All ingredients present on AICS.
Labelling Details	
HAZARD	C-CORROSIVE, Xn - HARMFUL
RISK PHRASES	R35 - Causes severe burns. R20/21/22 - Harmful by inhalation, in contact with skin and if swallowed. R37 - Irritating to respiratory system.
SAFETY PHRASES	S1/2 - Keep locked up and out of the reach of children. S24/25 - Avoid contact with skin and eyes. S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection. S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label wherever possible).
SUSDP	S6 POISON (POTASSIUM HYDROXIDE)
ADG Code	8

SECTION 16 – OTHER INFORMATION

Acronyms	SUSDP	Standard for the Uniform Scheduling of Drugs and Poisons.
	ADG Code	Australian Code for the Transport of Dangerous Goods by Road and Rail.
	CAS	Chemical Abstracts Service Registry Number.
	Number	
	UN Number	United Nations Number.
	R-Phrases	Risk Phrases.

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HAZCHEM An emergency action code of numbers and letters which gives information to emergency services.
NOHSC National Occupational Health and Safety Commission.
NTP National Toxicology Program (USA).
IARC International Agency for Research on Cancer.
AICS Australian Inventory of Chemical Substances.
TWA Time Weighted Average
STEL Short Term Exposure Limit

Literature References

List of Designated Hazardous Substances [NOHSC:10005(1999)]
 Australian Code For The Transport Of Dangerous Goods By Road And Rail – Sixth Edition.
 Standard for the Uniform Scheduling of Drugs and Poisons.
 National Code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition [NOHSC:2011(2003)]
 Approved Criteria for Classifying Hazardous Substances [NOHSC:1008(1999)]
 Material Safety Data Sheets – individual raw materials – Suppliers.
 HSIS – Hazardous Substance Information System – National Worksafe Data Base.
 New Issue to standard: 2nd Edition [NOHSC:2011(2003)].

Revision Information

Note

Safety Data Sheets are updated frequently. Please ensure that you have a current copy.

Contact Point

Regulatory Affairs Manager. **Telephone** (07) 5437 7714

Issue Date

SEPT 2010 **Supersedes Issue Date** SEPT 2005

This MSDS summarises at the date of issue our best knowledge of the health and safety hazard information of this product, and in particular how to safely handle and use this product in the workplace. Since the supplier cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, review this MSDS in the context of how the user intends to handle and use the product in the workplace. If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact this supplier.