

Safety Data Sheet

QKIND D-Scale Descaler

Compilation Date: 1 January 2006

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Revision No: 3.0

1. Chemical Product and Company Identification

Product Name	Descaling Acid
Other Means of Identification	D-Scale Descaler
Product Code	5lt: AQKDSCALE5, 20lt: AQKDSCALE20
Product Use	Dissolves scale and rust from hard surfaces.
Supplier	QKIND
Mail Address	2/594 Boundary Road, Archerfield QLD 4108
Email	sales@qkind.com.au
Telephone:	1300 00 44 12
Emergency Telephone:	Poisons Information Centre (National) 131126

2. Hazards Identification

Statement of Hazardous Nature

This product is classified as: Xn, Harmful. N, Dangerous to the environment. C, Corrosive.

Hazardous according to the criteria of SWA.

Dangerous according to Australian Dangerous Goods (ADG) Code, IATA and IMDG/IMSBC criteria.

SUSMP Classification: S6

ADG Classification: Class 8: Corrosive Substances.

UN Number: 3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.

GHS Classification | Skin corrosion category 1

GHS Label Elements



SIGNAL WORD

DANGER

Corrosive to metals - Category 1

Skin Corrosion /Irritation - Category 1B

Eye damage – Category 1

Hazardous to aquatic environment Short term/Acute - Category 3

Hazard Statement(s)

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<p>H290 H314 H402</p>	<p>May be corrosive to metals. Causes severe skin burns and eye damage. Harmful to aquatic life.</p>
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Prevention(s)

<p>P102 P262</p>	<p>Keep out of reach of children. Do not breathe dust / fume / gas / mist / vapours / spray.</p>
<p>P264 P270</p>	<p>Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product.</p>
<p>P273 P280</p>	<p>Avoid release to the environment. Wear protective gloves / protective clothing / eye protection / face protection.</p>

Refer to the SDS before using this product

Response

<p>P310</p>	<p>Immediately call a POISON CENTER or doctor/physician.</p>
<p>P363 P301+P330+P331</p>	<p>Wash contaminated clothing before reuse. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.</p>
<p>P303+P361+P353</p>	<p>IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water.</p>
<p>P304+P340</p>	<p>IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.</p>
<p>P305+P351+P338</p>	<p>IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p>
<p>P390 P370+P378</p>	<p>Absorb spillage to prevent material damage. Not combustible. Use extinguishing media suited to burning materials. Water fog or fine spray is the preferred medium for large fires.</p>

Storage

<p>P405</p>	<p>Store locked up</p>
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Disposal

<p>P501</p>	<p>Dispose of contents/container in accordance with local/regional/national/international regulations.</p>
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3. Composition/Information on Ingredients

(Listed when present at 1% or greater, carcinogens at 0.1% or greater)

Chemical Name	CAS Registry Number	% Weight	Hazard Information
Water	>60	7732-18-5	None
Phosphoric acid	15-30	7664-38-2	H290: May be corrosive to metals. H314: Causes severe skin burns and eye damage. TWA: 1 mg/m ³ STEL: 3 mg/m ³
Oxirane, 2-methyl-, polymer with oxirane, mono(2-propylheptyl) ether	<5	166736-08-9	H319 Causes serious eye irritation. H316 Causes mild skin irritation. H303 May be harmful if swallowed. H402 Harmful to aquatic life.

The SWA TWA exposure value is the 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 may be equalled (but should not be exceeded) for no longer than 15 minutes and should not be repeated 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.

4. First Aid Measures

General	For advice, contact a Poisons Information Centre (Australia 13 11 26) or a doctor. If swallowed, do NOT induce vomiting. Immediately give a glass of water.
Inhalation	If swallowed or inhaled, remove from contaminated area. Apply artificial respiration if not breathing. Do not give direct mouth-to-mouth resuscitation. To protect rescuer, use airviva, oxy-viva or one-way mask. Resuscitate in a well-ventilated area.
Skin:	If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water
Eyes	Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for at least 20-30 minutes, by the clock, while holding the eyelid(s) open. Neutral saline solution may be used as soon as it is available. DO NOT INTERRUPT FLUSHING. If necessary, keep emergency vehicle waiting (show paramedics this SDS and take their advice). Take care not to rinse contaminated water into the unaffected eye or onto face. If irritation persists, repeat flushing. Call a Poisons Information Centre or a doctor urgently. Take special care if exposed person is wearing contact lenses.

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Ingestion:	If swallowed, do NOT induce vomiting; rinse mouth thoroughly with water and contact a Poisons Information Centre. Urgent hospital treatment is likely to be needed. Give activated charcoal if instructed.
Symptoms Caused by Exposure (Chronic)	No data available
First aid facilities	Ensure eyewash and safety shower facilities are available in workplace.

5. Fire Fighting Measures

Fire and Explosion Hazards	<p>The major hazard in fires is usually inhalation of heated and toxic or oxygen deficient (or both), fire gases. There is little risk of an explosion from this product if commercial quantities are involved in a fire.</p> <p>Only small quantities of decomposition products are expected from this product at temperatures normally achieved in a fire. This will only occur after heating to dryness.</p> <p>Fire decomposition products from this product are likely to be irritating if inhaled.</p>
Extinguishing Media	Water fog or fine spray is the preferred medium for large fires. Try to contain spills, minimise spillage entering drains or water courses.
Fire Fighting	If a significant quantity of this product is involved in a fire, call the fire brigade. There is little danger of a violent reaction or explosion if significant quantities of this product are involved in a fire. Recommended personal protective equipment is liquid-tight chemical protective clothing and breathing apparatus.
Flash Point	None
Upper Flammability Limit:	Does not burn
Lower Flammability Limit:	Does not burn
Auto ignition temperature	Not applicable - Does not burn
Flammability Class:	Does not burn

6. Accidental Release Measures

Personal Precautions	Wear protective eyewear, chemical resistant boots, impervious overalls and gloves.
Environmental Precautions	Seek disposal options by a licensed waste contractor
Minor Spills	Clean up all spills immediately.

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Major Spills	<p>Avoid breathing vapours and contact with skin and eyes. Control personal contact with the substance, by using protective equipment. Contain and absorb spill with sand, earth, inert material or vermiculite. Wipe up. Place in a suitable, labeled container for waste disposal. Clear area of personnel and move upwind. Alert Fire Brigade and tell them location and nature of hazard. Wear full body protective clothing with breathing apparatus. Prevent, by any means available, spillage from entering drains or water course. Stop leak if safe to do so. Contain spill with sand, earth or vermiculite. Collect recoverable product into labeled containers for recycling.</p>
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7. Precautions for handling and storage

Precautions for Safe Handling	<p>Keep exposure to this product to a minimum, and minimise the quantities kept in work areas. Check Section 8 of this SDS for details of personal protective measures, and make sure that those measures are followed. The measures detailed below under "Storage" should be followed during handling in order to minimise risks to persons using the product in the workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.</p>
Conditions for Safe Storage	<p>This product is a Scheduled Poison. Observe all relevant regulations regarding sale, transport and storage of this schedule of poison. Store in a cool, well ventilated area. Check containers periodically for corrosion and leaks. Containers should be kept closed in order to minimise contamination. Make sure that the product does not come into contact with substances listed under "Incompatibilities" in Section 10. If you keep more than 10000kg or L of Dangerous Goods of Packaging Group III, you may be required to license the premises or notify your Dangerous Goods authority. If you have any doubts, we suggest you contact your Dangerous Goods authority in order to clarify your obligations. Check packaging - there may be further storage instructions on the label.</p>

8. Exposure controls /personal protection

The following Australian Standards will provide general advice regarding safety clothing and equipment:
 Respiratory equipment: AS/NZS 1715, Protective Gloves: AS 2161, Occupational Protective Clothing: AS/NZS 4501 set 2008, Industrial Eye Protection: AS1336 and AS/NZS 1337, Occupational Protective Footwear: AS/NZS2210.

SWA Exposure Limits	TWA (mg/m3)	STEL (mg/m3)
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Phosphoric Acid	1	3
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No special equipment is usually needed when occasionally handling small quantities. The following instructions are for bulk handling or where regular exposure in an occupational setting occurs without proper containment systems. **Ventilation:** This product should only be used in a well ventilated area. If natural ventilation is inadequate, use of a fan is suggested.

Engineering Controls	
Individual Protection Eyes/Face protection	Avoid generation and inhalation of mists and aerosols Your eyes must be completely protected from this product by splash resistant goggles with face shield. All surrounding skin areas must be covered. Emergency eye wash facilities must also be available in an area close to where this product is being used.
Skin protection	Because of the dangerous nature of this product, make sure that all skin areas are completely covered by impermeable gloves, overalls, hair covering, apron and face shield. See below for suitable material types
Protective materials	We suggest that protective clothing be made from the following materials: rubber, PVC and Viton.
Respiratory	Usually, no respirator is necessary when using this product. However, if you have any doubts consult the Australian Standard mentioned above. Otherwise, not normally necessary. Safety deluge showers should, if practical, be provided near to where this product is being handled commercially.

9. Physical and chemical properties

Appearance	Clear, colourless liquid.
Odour:	Faint odour
pH	0.5-1.5 (as supplied)
Vapour pressure:	No data.
Vapour Density:	No data.
Boiling Point:	Approximately 100°C
Boiling range	No data.
Melting point	No data.
Solubility in water	Miscible in all proportions
Specific Gravity:	1.2 @ 25 C
Flash point	Not flammable
Solubility limits	Completely soluble in water
Per Cent Volatile	20 % v/v

10. Stability and Reactivity

Chemical Stability Conditions to Avoid	The product is stable under normal conditions Most strong acids react with inorganic and organic bases such as amines to form salts. They also react with many metals
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Conditions to Avoid	liberating hydrogen gas. These reactions are often rapid and sometimes liberate much heat. They can also decompose many organic materials such as esters, in a reaction called hydrolysis.
Incompatible Materials	Keep containers tightly closed. Containers should be kept dry. amines, zinc, tin, aluminium and their alloys, other substances reactive with strongly acidic liquids.
Hazardous Decomposition Products	Only small quantities of decomposition products are expected from this product at temperatures normally achieved in a fire. This will only occur after heating to dryness. Combustion forms carbon dioxide, and if incomplete, carbon monoxide and possibly smoke. Water is also formed. May form oxides of sulfur (sulfur dioxide is a respiratory hazard) and other sulfur compounds. Most will have a foul odour. May form oxides of phosphorus and other phosphorus compounds. Carbon monoxide poisoning produces headache, weakness, nausea, dizziness, confusion, dimness of vision, disturbance of judgment, and unconsciousness followed by coma and death.
Polymerisation:	This product will not undergo polymerisation reactions.

11. Toxicological information

Local Effects:

Target Organs: There is no data to hand indicating any particular target organs.

Classification of Hazardous Ingredients

Ingredient	Risk Phrases
Phosphoric Acid Skin corrosion - category 1B	Conc>=25%: C; R34

Potential Health Effects

Inhalation:

Short Term Exposure: Available data indicates that this product is not harmful. However product may be mildly irritating, although unlikely to cause anything more than mild transient discomfort. If liquid enters nasal passages, it will cause pain and burn nasal membranes. Patients with inhalation burns may develop acute pulmonary oedema. **Long Term Exposure:** No data for health effects associated with long term inhalation.

Skin Contact:

Short Term Exposure: This product is corrosive to the skin. Capable of causing moderate to severe burns with ulceration. Can penetrate to deeper layers of skin, resulting in third degree burns. Corrosion will continue until product is removed or neutralised. Severity depends on concentration and duration of exposure. Burns may not be immediately painful; the onset of pain may be minutes to hours.

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Long Term Exposure: No data for health effects associated with long term skin exposure.

Eye Contact:

Short Term Exposure: This product is corrosive to eyes. It will cause severe pain, and corrosion of the eye and surrounding facial tissues. Unless exposure is quickly treated, permanent blindness and facial scarring is likely. **Long Term Exposure:** No data for health effects associated with long term eye exposure.

Ingestion:

Short Term Exposure: Significant oral exposure is considered to be unlikely. Available data shows that this product is harmful, but symptoms are not available. However, this product is corrosive to the gastrointestinal tract. Capable of causing moderate to severe burns with ulceration. Can penetrate to deeper layers of skin, resulting in third degree burns. Corrosion will continue until product is removed or neutralised. Severity depends on concentration and duration of exposure.

Long Term Exposure: No data for health effects associated with long term ingestion.

Carcinogen Status:

SWA: No significant ingredient is classified as carcinogenic by SWA. **NTP:** No significant ingredient is classified as carcinogenic by NTP.

IARC: No significant ingredient is classified as carcinogenic by IARC.

12. Ecological information

This product is harmful to aquatic organisms. This product will not accumulate in the soil or water or cause long term problems. However, until diluted or neutralised it will kill all aquatic organisms it contacts due to extreme pH.

13. Disposal considerations

Disposal	Containers should be emptied as completely as practical before disposal. If possible, recycle product and containers either in-house or send to recycle company. If this is not practical, send to a commercial waste disposal site.
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14. Transport Information

Dangerous according to Australian Dangerous Goods (ADG) Code, IATA and IMDG/IMSBC criteria.

UN Number	3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
Hazchem Code	2X
Limited quantities	ADG 7 specifies a Limited Quantity value of 5 L for this class of product.
DG Class	Class 8: Corrosive Substances.
SUBSIDARY RISK	none allocated
Packaging Group	III

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Packaging Instructions | P001, IBC03, LP01

Class 8 Corrosive Substances shall not be loaded in the same vehicle or packed in the same freight container with Classes 1 (Explosives), 4.3 (Dangerous When Wet Substances), 5.1 (Oxidising Agents), 5.2 (Organic Peroxides), 6 (Toxic Substances where the Toxic Substances are cyanides and the Corrosives are acids), 7 (Radioactive Substances), Foodstuffs and foodstuff empties. They may however be loaded in the same vehicle or packed in the same freight container with Classes 2.1 (Flammable Gases), 2.2 (Non-Flammable, Non-Toxic Gases), 2.3 (Poisonous Gases), 3 (Flammable liquids), 4.1 (Flammable Solids), 4.2 (Spontaneously Combustible Substances), 6 (Toxic Substances except where the Toxic Substances are cyanides and the Corrosives are acids) and 9 (Miscellaneous Dangerous Goods).

15. Regulatory Information

Packaging and Labelling | AICS: All of the significant ingredients in this formulation are compliant with NICNAS regulations.
The following ingredient: Phosphoric acid is mentioned in the SUSMP.

16. Other information

Abbreviations

AICS	Australian Inventory of Chemical Substances
CAS Number	Unique Chemical Abstracts Service Registry Number
EC50	Ecotoxic Concentration 50% — concentration in water which is fatal to 50% of a test population (e.g. daphnia, fish species)
ES	Exposure Standard - The airborne concentration of a biological or chemical agent to which a worker may be exposed in a work day
GHS	Globally Harmonised System of Classification and Labelling of Chemicals
HAZCHEM Code	Emergency action code of numbers and letters that provide information to emergency services, especially fire fighters
IARC	International Agency for Research on Cancer
LEL	Lower Explosive Limit
LD50	Lethal Dose 50% — dose which is fatal to 50% of a test population (usually rats).
LC50	Lethal Concentration 50% — concentration in air which is fatal to 50% of a test population (usually rats)
NICNAS	National Industrial Chemicals Notification and Assessment Scheme
Peak Limitation	Peak Exposure Value: The maximum airborne concentration of a biological or chemical agent to which a worker may be exposed at any time.
SDS	Safety Data Sheet
STEL	Short Term Exposure Limit - The maximum airborne concentration of a chemical or biological agent to which a worker may be exposed in any 15 minute period, provided the TWA is not exceeded
TWA	Time Weighted Average — generally referred to ES averaged over typical work day (usually 8 hours)



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UEL	Upper Explosive Limit
UN Number	United Nations Number

References

Data	Unless otherwise stated comes from IUCLID datasheet for the specific chemical.
NOHSC: 1003	National Occupational Health and Safety Commission 1995, Exposure Standards for Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(199511

Prepared By	Jon Sprinkhuizen
Date of Issue	12th of October 2021
Changes Made	Update SDS to GHS format
References	Australian Dangerous Goods Code Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice 2011. Standard for the Uniform Scheduling of Medicines & Poisons (SUSMP) Guidance
Contact Person/Point	Australia 24 HOUR EMERGENCY CONTACT Poisons Information Centre 13 11 26

Legal Disclaimer	The above information is believed to be correct with respect to the formula used to manufacture the product in the country of origin. As data, standards, and regulations change, and conditions of use and handling are beyond our control, NO WARRANTY, EXPRESS OR IMPLIED, IS MADE AS TO THE COMPLETENESS OR CONTINUING ACCURACY OF THIS INFORMATION.
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End of SDS