



SAFETY DATA SHEET

According to Safe Work Australia

Printing date 08.08.2014

Revision: 01.08.2014

1 . IDENTIFICATION: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

Product Name: ALKAFORCE**Other Name:** Aqueous caustic solution.**Recommended Use of the Chemical and Restriction on Use:** Cleaning solution.**Details of Manufacturer or Importer:**

DASCO Pty Ltd
24-26 Helen Street
Heidelberg Heights VIC 3081

Phone Number: (03) 9459 7004**Emergency telephone number:** 13 11 26 (Poisons Information Centre)

2 . HAZARDS IDENTIFICATION

Hazardous Nature:

corrosion

Skin Corr. 1A H314 Causes severe skin burns and eye damage.

Label Elements**Signal Word** Danger**Hazard Statements**

H314 Causes severe skin burns and eye damage.

Precautionary Statements

- P260 Do not breathe dust/fume/gas/mist/vapours/spray.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P264 Wash hands thoroughly after handling.
 P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P321 Specific treatment (see on this label).
 P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 P363 Wash contaminated clothing before reuse.
 P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
 P310 Immediately call a POISON CENTER/doctor.
 P405 Store locked up.
 P501 Dispose of contents/container in accordance with local/regional/national regulations.

3 . COMPOSITION AND INFORMATION ON INGREDIENTS

Chemical Characterization: Mixtures**Description:** Mixture of substances listed below with nonhazardous additions.**Hazardous Components:**

1310-73-2	Sodium hydroxide (Na(OH)) Skin Corr. 1A, H314	10-30%
1310-58-3	Potassium hydroxide Skin Corr. 1A, H314; Acute Tox. 4, H302	<10%

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4 . FIRST AID MEASURES

Inhalation: If inhaled, remove to fresh air, rest and keep warm. Seek medical attention.

Skin Contact:

In case of skin contact, immediately remove contaminated clothing and wash skin and hair with running water. Seek medical attention.

Eye Contact:

In case of eye contact, hold eyelids apart and flush eye with running water for at least 15 minutes or until advised to stop by Poisons Information Centre or a doctor. Seek immediate medical attention.

Ingestion: If swallowed, do not induce vomiting. Seek immediate medical attention.

Information for Doctor

Product is an aqueous solution containing a mixture of sodium and potassium hydroxides. Corrosive, causes severe burns. Risk of serious eye damage. If swallowed, may cause holes in the intestines. Gastric lavage may be contraindicated. Contact Poisons Information Centre.

5 . FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Water fog or fine water spray.

Specific Hazards Arising from the Chemical:

Contact with light metals such as aluminium, tin or zinc may generate flammable hydrogen gas. Combustion products include water vapour, oxides of sodium, oxides of potassium and oxides of phosphorous.

Special Protective Equipment and Precautions for Fire Fighters:

Wear Safe Work Australia approved self-contained breathing apparatus and full protective clothing.

6 . ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures:

Wear Safe Work Australia approved self-contained breathing apparatus and full protective clothing. Evacuate all non-essential personnel from affected area. Do not breathe vapours. Ensure adequate ventilation.

Environmental Precautions:

In the event of a major spill, prevent spillage from entering drains or water courses.

Methods and Materials for Containment and Cleaning Up:

Stop leak if safe to do so. Slippery when spilled.

For small spills: If local regulations permit, mop up with plenty of water and run to waste, diluting greatly with running water. Otherwise absorb spill with inert absorbent material and transfer to a suitable container and arrange removal by a disposals company.

For large spills: absorb spill with sand, earth or other absorbent material. Transfer both solids and liquids to a suitable container for disposal. Treat residues as for small spillages.

7 . HANDLING AND STORAGE

Precautions for Safe Handling:

Use of safe work practices are recommended to avoid eye or skin contact and inhalation of vapours or aerosols. Use only outdoors or in a well-ventilated area.

Food, beverages and tobacco products should not be stored or consumed where this material is in use. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use. Provide eyewash fountains and safety showers in close proximity to points of potential exposure.

Conditions for Safe Storage:

Store in a cool, dry and well ventilated area. Keep container tightly closed. Store only in original container out of direct sunlight. Protect from physical damage. Keep away from acids, light metals (such as aluminium, tin,

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zinc), ammonium compounds, nitro compounds, organic halides, glass, wood and paper products. Large quantities should be stored in dangerous goods store. Keep out of reach of children.

8 . EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Standards:

1310-73-2 Sodium hydroxide (Na(OH))

NES	TWA: 2 mg/m ³ Peak limitation: 2 mg/m ³
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1310-58-3 Potassium hydroxide

NES	TWA: 2 mg/m ³ Peak limitation: 2 mg/m ³
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Engineering Controls:

Ensure adequate ventilation of the workplace. If handling industrial quantities, or if vapour/mist risk exists, provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapour as low as possible, at least below occupational exposure limits.

Personal Protective Equipment (PPE):

Respiratory Protection:

Use a Safe Work Australia approved vapour respirator under conditions where exposure to the substance is apparent (e.g. generation of high concentrations of mist or vapour, inadequate ventilation, development of respiratory tract irritation) and engineering controls are not feasible. See Australian Standards AS/NZS 1715 and 1716 for more information.

Skin Protection:

Rubber or plastic gloves. See Australian/New Zealand Standard AS/NZS 2161 for more information. When selecting gloves for use against certain chemicals, the degradation resistance, permeation rate and permeation breakthrough time should be considered.

Impervious overalls, plastic apron, sleeves and boots should be worn when handling industrial quantities. See Australian/New Zealand Standard AS/NZS 4501 for more information.

Eye and Face Protection:

Eye and face protectors for protection against splashing materials or liquids, such as face shield and safety glasses. See Australian/New Zealand Standard AS/NZS 1337 for more information.

9 . PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Form:	Slightly viscous liquid
Colour:	Clear, tan or brown
Odour:	Characteristic
Odour Threshold:	No information available
pH-Value:	13 (1% in water)
Melting point/Melting range:	No information available
Initial Boiling Point/Boiling Range:	> 100 °C
Flash Point:	Not applicable.
Flammability:	Product is not flammable.
Auto-ignition Temperature:	No information available
Decomposition Temperature:	No information available
Explosion Limits:	
Lower:	Not applicable
Upper:	Not applicable
Vapour Pressure:	No information available

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Density:	No information available
Relative Density at 20 °C:	1.44 g/mL
Vapour Density:	No information available
Evaporation Rate:	No information available
Solubility in Water:	Miscible in all proportions
Partition Coefficient (n-octanol/water):	No information available
% Volatiles by Volume:	55.5 % (water)
VOC:	Nil

10 . STABILITY AND REACTIVITY

Possibility of Hazardous Reactions:

Highly alkaline solution. Will react vigorously or violently with acids and acidic salts. Contact with light metals may generate hydrogen, a flammable gas. Contact with ammonium compounds may generate ammonia, a toxic gas. May attack wood or paper products. May attack glass on prolonged contact. Will absorb carbon dioxide from air, forming sodium and potassium carbonates. May react violently with organic halides. May form shock sensitive products with nitro compounds.

Chemical Stability: Stable under normal conditions.

Conditions to Avoid: Exposure to air, physical damage and direct sunlight.

Incompatible Materials:

Acids, light metals (such as aluminium, tin or zinc), wood and paper products, ammonium compounds, nitro compounds, organic halides, glass.

Hazardous Decomposition Products: Sodium and potassium oxides, oxides of phosphorous.

11 . TOXICOLOGICAL INFORMATION

Toxicity:

LD₅₀/LC₅₀ Values Relevant for Classification:

1310-73-2 Sodium hydroxide (Na(OH))

	LD ₅₀	40 mg/kg (mouse) (intraperitoneal)
Oral	LDLo	500 mg/kg (rabbit)

1310-58-3 Potassium hydroxide

Oral	LD ₅₀	273 mg/kg (rat)
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Acute Health Effects

Inhalation:

Inhalation of mists or aerosols may cause damage to the upper respiratory tract and lungs. Effects may range from mild irritation of the mucous membranes to severe pneumonitis (irritation of lung tissues). May cause coughing, burning sensations, laboured breathing, sneezing, sore throat and runny nose. Inhalation of mists or aerosols may cause oedema (fluid in the lungs). Onset of symptoms may be delayed.

Skin: Corrosive, causes severe burns. Mists or aerosols may cause small burns, redness and pain.

Eye:

Eye contact with liquid may cause rapid and severe damage to the tissues. May cause redness, pain and blurred vision. May cause severe, deep burns and permanent impairment to, or total loss of sight.

Ingestion:

Corrosive, causes severe burns. Can cause burns to mouth and throat, nausea, vomiting, abdominal pains, occasionally bloody diarrhoea, drop in blood pressure, heart failure, coma and death. May cause swelling of the larynx and subsequent suffocation. Can cause perforation of the stomach and intestines, and the sites of subsequent scarring have been associated with stomach cancer formation. Damage may not become evident until days after exposure/contact, but still may prove fatal.

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Skin Corrosion / Irritation: Causes severe skin burns.**Serious Eye Damage / Irritation:** Causes serious eye damage.**Respiratory or Skin Sensitisation:** Based on classification principles, the classification criteria are not met.**Germ Cell Mutagenicity:** Based on classification principles, the classification criteria are not met.**Carcinogenicity:** This product does NOT contain any IARC listed chemicals.**Reproductive Toxicity:** Based on classification principles, the classification criteria are not met.**Specific Target Organ Toxicity (STOT) - Single Exposure:**

Based on classification principles, the classification criteria are not met.

Specific Target Organ Toxicity (STOT) - Repeated Exposure:

Based on classification principles, the classification criteria are not met.

Aspiration Hazard: Based on classification principles, the classification criteria are not met.**Chronic Health Effects:** Repeated or prolonged skin contact may cause dermatitis.**Existing Conditions Aggravated by Exposure:** No information available

12 . ECOLOGICAL INFORMATION

Ecotoxicity: Harmful to aquatic organisms.**Aquatic toxicity:** No information available**Persistence and Degradability:** No information available**Bioaccumulative Potential:** No information available**Mobility in Soil:** No information available

13 . DISPOSAL CONSIDERATIONS

Disposal Methods and Containers:

Avoid disposal to drains, natural waters or the environment. Do not use metal containers. Dispose according to applicable local and state government regulations.

Special Precautions for Landfill or Incineration:

Not suitable for incineration or some landfill sites. Please consult your state Land Waste Management Authority for more information.

14 . TRANSPORT INFORMATION

UN Number**ADG**

UN1719

Proper Shipping Name**ADG**

CAUSTIC ALKALI LIQUID, N.O.S. (sodium hydroxide, potassium hydroxide)

Dangerous Goods Class**ADG Class:**

8 Corrosive substances.

Packing Group:**ADG**

II

Hazchem Code:

2R

Special Provisions:

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Limited Quantities: 1L
Packagings & IBCs - Packing Instruction: P001, IBC02
Packagings & IBCs - Special Packing Provisions: Not applicable
Portable Tanks & Bulk Containers - Instructions: T11
Portable Tanks & Bulk Containers - Special Provisions: TP2, TP27

15 . REGULATORY INFORMATION

Australian Inventory of Chemical Substances:

1310-73-2	Sodium hydroxide (Na(OH))
1310-58-3	Potassium hydroxide
7732-18-5	Water

Standard for the Uniform Scheduling of Drugs and Poisons (SUSMP) - Poison Schedule:
 Poisons Schedule: 6

16 . OTHER INFORMATION

Creation Date: 01.08.2014**Last Revision of MSDS:** 01.09.2009**Prepared by:** MSDS.COM.AU Pty Ltdwww.msds.com.au

Abbreviations and acronyms:

ADG: Australian Dangerous Goods
 GHS: Globally Harmonized System of Classification and Labelling of Chemicals
 EINECS: European Inventory of Existing Commercial Chemical Substances
 ELINCS: European List of Notified Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 VOC: Volatile Organic Compounds
 LC₅₀: Lethal concentration, 50 percent
 LD₅₀: Lethal dose, 50 percent
 IARC: International Agency for Research on Cancer
 STEL: Short Term Exposure Limit
 TWA: Time Weighted Average
 NES: National Exposure Standard (Safe Work Australia - Workplace Exposure Standards For Airborne Contaminants)

Disclaimer

This MSDS is prepared in accord with the Safe Work Australia document "Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals - December 2011"

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