

Safety Data Sheet

according to WHS Regulations

Printing date 02.09.2019

Revision: 02.09.2019

1 Identification

Product Name: ALKAFORCE**Other Means of Identification:** Mixture**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:** National Poison Information Centre: 13 11 26

2 Hazard(s) Identification

Hazardous Nature:

Classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Safe Work Australia criteria.

Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition).



corrosion

Skin Corrosion/Irritation 1A H314 Causes severe skin burns and eye damage.

Serious Eye Damage/Irritation 1 H318 Causes serious eye damage.



STOT SE 3 H335 May cause respiratory irritation.

Signal Word Danger**Hazard Statements**

H314 Causes severe skin burns and eye damage.

H335 May cause respiratory irritation.

Precautionary Statements

P260 Do not breathe dusts or mists.

P264 Wash hands thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+P340 IF INHALED: Remove person to fresh air and keep 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 CENTER/doctor.

P321 Specific treatment (see on this label).

P363 Wash contaminated clothing before reuse.

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

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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:**

CAS: 1310-73-2	Sodium hydroxide	10 - 30%
	⚠ Skin Corrosion/Irritation 1A, H314; ⚠ STOT SE 3, H335	
CAS: 1310-58-3	Potassium hydroxide	<10%
	⚠ Skin Corrosion/Irritation 1A, H314; ⚠ Acute Toxicity (Oral) 4, H302	

4 First Aid Measures

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if breathing problems develop.

Skin Contact:

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

Eye Contact:

In case of eye contact, hold eyelids open and rinse with water for at least 15 minutes. Seek medical attention if symptoms occur.

Ingestion:

If swallowed, do not induce vomiting. Immediately rinse mouth with water. Give a glass of water. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

Symptoms Caused by Exposure:

Inhalation: May cause respiratory irritation. May cause coughing, wheezing, sore throat and shortness of breath. May cause chemical pneumonitis and pulmonary oedema.

Skin Contact: Causes severe skin burn and redness.

Eye Contact: Causes serious eye damage, redness and blurred vision. May cause permanent eye damage.

Ingestion: May cause irritation or burns to the mouth, throat and gastrointestinal system. May cause perforation of the stomach or intestines. May cause swelling of the larynx and subsequent suffocation. May cause vomiting, diarrhoea, ulceration and bleeding. May cause shock and collapse. May be fatal if swallowed.

5 Fire Fighting Measures

Suitable Extinguishing Media: Water fog or fine water spray.

Specific Hazards Arising from the Chemical:

Hazardous combustion products include oxides of carbon, silicon and sodium.

This product is not flammable, however contact with metals may generate flammable hydrogen gas.

Containers close to fire should be removed if safe to do so. Use water spray to cool fire exposed containers.

Special Protective Equipment and Precautions for Fire Fighters:

When fighting a major fire wear self-contained breathing apparatus and protective equipment.

6 Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures:

Wear approved respiratory protection and full protective clothing. Evacuate all non-essential personnel from affected area. Do not breathe vapours. Ensure adequate ventilation. Do not touch or walk through spilt product. Product is slippery if spilt.

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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:

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 for disposal.

For large spills: absorb spill with sand, earth or other absorbent material. Transfer to a suitable container for disposal.

7 Handling and Storage

Precautions for Safe Handling:

Reacts violently with acids.

May be corrosive to metals and wood.

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

Take precautionary measures against static discharge. 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 when not in use. Only store in original container. Protect containers from physical damage. Protect from direct sunlight and moisture. Keep away from acids, oxidising agents, ammonium compounds, wood, organic halides, nitro compounds and active metals such as aluminium, tin or zinc.

8 Exposure Controls and Personal Protection

Exposure Standards:**CAS: 1310-73-2 Sodium hydroxide**

WES	Peak limitation: 2 mg/m ³
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CAS: 1310-58-3 Potassium hydroxide

WES	Peak limitation: 2 mg/m ³
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Engineering Controls:

Maintain air concentration below occupational exposure standards, providing adequate ventilation.

Respiratory Protection:

Use an 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. See Australian/New Zealand Standard AS/NZS 1337 for more information.

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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/freezing point:** 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**Density:** No information available**Relative Density at 20 °C:** 1.44**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)

10 Stability and Reactivity

Possibility of Hazardous Reactions:

Hazardous polymerisation will not occur.

Reacts violently with acids.

May be corrosive to metals and wood.

Will generate significant amounts of heat when mixed with water.

Contact with ammonium compounds may generate toxic ammonia gas.

Contact with acids may generate carbon dioxide.

Contact with metals may generate flammable hydrogen gas.

Chemical Stability: Stable at ambient temperature and under normal conditions of use.**Conditions to Avoid:** Physical damage to container, direct sunlight and moisture.**Incompatible Materials:**

Acids, oxidising agents, ammonium compounds, wood, organic halides, nitro compounds and active metals such as aluminium, tin or zinc.

Hazardous Decomposition Products: Oxides of carbon, silicon and sodium.

11 Toxicological Information

Toxicity:**LD₅₀/LC₅₀ Values Relevant for Classification:****CAS: 1310-73-2 Sodium hydroxide**LD₅₀ 40 mg/kg (mouse) (intraperitoneal)

Oral LDLo 500 mg/kg (rabbit)

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CAS: 1310-58-3 Potassium hydroxide		
Oral	LD ₅₀	273 mg/kg (rat)

Acute Health Effects**Inhalation:**

May cause respiratory irritation. May cause coughing, wheezing, sore throat and shortness of breath. May cause chemical pneumonitis and pulmonary oedema.

Skin: Causes severe skin burn and redness.

Eye: Causes serious eye damage, redness and blurred vision. May cause permanent eye damage.

Ingestion:

May cause irritation or burns to the mouth, throat and gastrointestinal system. May cause perforation of the stomach or intestines. May cause swelling of the larynx and subsequent suffocation. May cause vomiting, diarrhoea, ulceration and bleeding. May cause shock and collapse. May be fatal if swallowed.

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: May cause respiratory irritation.

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

Additional toxicological information: No information available

12 Ecological Information

Ecotoxicity:**Aquatic toxicity:****CAS: 1310-73-2 Sodium hydroxide**

EC ₅₀ /48 h	40.38 mg/l (daphnia)
LC ₅₀ /96 h	125 mg/l (mosquito fish)
	45.4 mg/l (rainbow trout)

CAS: 1310-58-3 Potassium hydroxide

EC ₅₀ /15 minutes	22 mg/l (bacterial)
LC ₅₀ /96 h	45.4 mg/l (rainbow trout)
LC ₅₀ /48 h	40 mg/l (daphnia)

Persistence and Degradability: No further relevant information available.

Bioaccumulative Potential: No further relevant information available.

Mobility in Soil: No further relevant information available.

Other adverse effects: No further relevant information available.

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13 Disposal Considerations

Disposal Methods and Containers: Dispose according to applicable local and state government regulations.

Special Precautions for Landfill or Incineration:

Please consult your state Land Waste Management Authority for more information.

14 Transport Information

UN Number	UN1719
ADG, IMDG, IATA	
Proper Shipping Name	CAUSTIC ALKALI LIQUID, N.O.S. (sodium hydroxide, potassium hydroxide)
ADG, IMDG, IATA	
Dangerous Goods Class	
ADG Class:	8 Corrosive substances.
Packing Group:	
ADG, IMDG, IATA	II
EMS Number:	F-A,S-B
Hazchem Code:	2R
Special Provisions:	274
Limited Quantities:	1L
Packagings & IBCs - Packing Instruction:	P001, IBC02
Portable Tanks & Bulk Containers - Instructions:	T11
Portable Tanks & Bulk Containers - Special Provisions:	TP2, TP27

15 Regulatory Information

Australian Inventory of Chemical Substances:

CAS: 1310-73-2	Sodium hydroxide
CAS: 1310-58-3	Potassium hydroxide
CAS: 7732-18-5	Water

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

Poisons Schedule: 6

16 Other Information

Date of Preparation or Last Revision: 02.09.2019

Last Revision of MSDS: 01.09.2009

Prepared by: MSDS.COM.AU Pty Ltd

www.msds.com.au

Abbreviations and acronyms:

ADG: Australian Dangerous Goods
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association
 GHS: Globally Harmonised System of Classification and Labelling of Chemicals
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 LC₅₀: Lethal concentration, 50 percent
 LD₅₀: Lethal dose, 50 percent

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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)

Acute Toxicity (Oral) 4: Acute toxicity – Category 4

Skin Corrosion/Irritation 1A: Skin corrosion/irritation – Category 1A

Serious Eye Damage/Irritation 1: Serious eye damage/eye irritation – Category 1

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

Disclaimer

This SDS is prepared in accord with the Safe Work Australia document "Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals - February 2016"

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