

Dalcon Hygiene

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Safety Data Sheet

Revision Date: Wednesday, 02 March 2022

Print Date: Wednesday, 02 March 2022

Pro-Kleen

Classification of Product:

Classified as **HAZARDOUS** according to criteria of the Globally Harmonised System of Classification and Labelling of Chemicals 3rd Revised Edition.

Classified as **DANGEROUS GOODS** by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail.

1. IDENTIFICATION: PRODUCT IDENTIFIER AND CHEMICAL IDENTITY

- a. Product name: Pro-Kleen
- b. Other means of identification: None
- c. Recommended use of the chemical
Cleaning porcelain and tiled surfaces.
- d. Manufacturer details:
Dalcon Hygiene
36 Victoria St Smithfield
NSW 2164
Australia
PH: (02) 9604 1155
FAX: (02) 9604 9055
Email: admin@dalconhygiene.com.au
- e. Poisons information centre: 13 11 26 (Australia)

2. HAZARD(S) IDENTIFICATION

- a. Classification of the hazardous chemical:

This material is Classified as **HAZARDOUS** according to Safe Work Australia.

Skin corrosion/irritation – category 1C

Eye Damage -1A

Corrosive to metals – Category 1
Acute Aquatic Toxicity - Category 1

b. Signal word: **DANGER**



c. **Hazard statement(s):**

H290: May be corrosive to metals
H314: Causes severe skin burns and eye damage.
H400 Very toxic to aquatic life.

Precautionary Statement(s)

P101: If medical advice is needed, have product container or label at hand.
P102: Keep out of reach of children.
P103: Read label before use.

Prevention:

P260 Do not breathe fumes/ gas / mist / vapours / spray.
P264 Wash hands thoroughly after handling.
P273 Avoid release to the environment.
P280 Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331 IF SWALLOWED: Rinse mouth. P303+P361+P353 IF ON SKIN (or hair):
Take off immediately all contaminated clothing. Rinse skin with water/shower.
P303+361+353: IF ON SKIN (or hair): Take off immediately all contaminated clothing.
Rinse skin with running water/ shower
P363 Wash contaminated clothing before re-use.
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 or doctor/physician.
P321 Specific treatment (see First Aid Measures on Safety Data Sheet). .
P391 Collect spillage.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents/container in accordance with
local/regional/national/international regulations.

Other Hazards:

AUH031 Contact with acids liberates toxic gas.

Poisons Schedule (SUSMP): S6

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Components	CAS number	Proportion	Hazard Codes
H2O	7732-18-5	>60%	-
Sodium Hypochlorite	7681-52-9	<10%	H314, H400
Sodium Hydroxide	1310-73-2	<10%	H290, H314, H318
Potassium Hydroxide	1310-58-3	<10%	H290, H302, H314, H318
Non-Hazardous components	-	10-30%	-

4. FIRST-AID MEASURES

For advice, contact a Poisons Information Centre (e.g. phone Australia 131 126; New Zealand 0800 764 766) or a doctor

Inhalation:

Avoid inhaling vapours/fumes. If inhaled, seek urgent medical help. Remove victim from area of exposure - avoid becoming a casualty. Remove to fresh air. Allow to rest in a comfortable position. If needed transport to emergency medical facility without delay

Skin Contact:

Avoid contact with skin. If contact occurs, immediately drench with running water and remove clothing. Continue to wash skin and hair with plenty of water (and soap if material is insoluble) until advised to stop by the Poisons Information Centre or a doctor.

Eye Contact:

Immediately wash in and around the eye area with large amounts of water for at least 30 minutes. Remove clothing if contaminated. Washing must be started within 10 seconds of contact. Seek immediate medical assistance. Continue to wash with large amounts of water until medical help is available.

Ingestion:

Immediately rinse mouth with water. If swallowed, do not induce vomiting. Give a glass of water and seek immediate medical assistance.

Indication of immediate medical attention and special treatment needed:

Treat symptomatically. Can cause corneal burns. Delayed pulmonary oedema may result.

Medical Conditions Aggravated by Exposure: Persons with lung diseases may be at an increased risk due to the toxic effects of this chemical on these organs.

5. FIRE-FIGHTING MEASURES

HAZCHEM: 2X

Product is not combustible.

a. **Suitable extinguishing equipment:**

In case of fire, use: normal foam, carbon dioxide or suitable dry chemical extinguisher.
Do NOT use water

b. **Specific hazards arising from the chemical**

Direct contact with water can produce a violent exothermic reaction.
Reacts with aluminium, tin, zinc and their alloys, copper, lead, etc. giving off hydrogen.
Do NOT allow fire fighting water to reach waterways, drains or sewers. Store fire fighting water for treatment

c. **Special protective equipment and precautions for fire fighters:**

Burning may emit toxic fumes, including those of chlorine. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of decomposition.

6. ACCIDENTAL RELEASE MEASURES

Emergency procedures/Environmental precautions:

Clear area of all unprotected personnel. If contamination of sewers or waterways has occurred advise local emergency services.

Personal precautions, protective equipment/Methods and materials for containment and cleaning up:

emergency procedures:

Slippery when spilt, avoid accidents and clean up immediately.

Clear the area of personnel.

Avoid breathing in the fumes. Wear protective equipment to prevent skin and eye contact and breathing in vapours. Work up wind or Increase ventilation.

Contain - prevent run off

Isolate the danger area. Use clean, non-sparking tools and equipment. Shut off all possible sources of ignition.

Environmental precautions:

Keep away from drains and waterways. Use absorbent (soil, sand or other inert material).

Methods and materials for containment and cleaning up:

Containment: store in bunded area

Stop leak if possible and safe to do so.

Clean up procedures: Wear protective eye goggles, breathing respirator, protective clothing, safety shoes, and gloves.

Mechanically collect as much of the spill as possible. Absorb with sand, earth or clay.

Store in properly labelled containers or drums for disposal as outlined in section 13.

7. HANDLING AND STORAGE, INCLUDING HOW THE CHEMICAL MAY BE SAFELY USED

This material is a Scheduled Poison S6 and must be stored, maintained and used in accordance with the relevant regulations.

a. **Precautions for safe handling**

Do not allow skin and/or eye contact.

Do not breathe in vapour, mists and aerosols. Use in a well ventilated area.

Keep out of reach of children.

Ensure an eye bath and safety shower are available and ready for use

Avoid eating, drinking or, smoking when using this chemical.

Avoid prolonged or repeated exposure.

Wash hands after use.

Remove contaminated clothing and protective equipment after using chemicals and before entering eating areas.

When used in its various applications, the product must be prevented from coming into uncontrolled direct contact with other products such as acids and metals. Never neutralise the solid product

b. **Conditions for safe storage, including incompatibilities.**

Store in cool place and out of direct sunlight.

Store in a bunded area. Store away from acids. Store away from incompatible materials described in Section 10.

Keep containers closed when not in use - check regularly for leaks.

Store away from foodstuffs.

Store away from aluminium, tin, zinc and alloys (bronzes), chrome and lead.

Protect from damp and kept apart from acids, halogenated hydrocarbons, nitroparaffins, etc

A water supply or source must be provided in the place of storage. Emergency showers and eye-washes must be available.

Prevent the product from becoming damp or aerated. Hygroscopic product. Becomes carbonated in contact with the air or moisture.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

a. **Control Parameters:**

No value assigned for this specific material by Safe Work Australia.

However, Workplace Exposure Standard(s) for constituent(s):

Chlorine: Peak Limitation = 3 mg/m³ (1 ppm)

Sodium hydroxide: Peak Limitation = 2 mg/m³

As published by Safe Work Australia Workplace Exposure Standards for Airborne Contaminants.

Peak Limitation - a maximum or peak airborne concentration of a particular substance determined over the shortest analytically practicable period of time which does not exceed 15 minutes.

These Workplace Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These workplace exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.

b. **Engineering controls:**

Ensure adequate ventilation. An exhaust/ducting system is recommended to keep workplace concentrations below exposure limits.

Keep containers closed when not in use

An eyewash fountain should be within the immediate work area for emergency use.

c. **Individual Protection measures**

RESPIRATOR: In the case of sodium hydroxide powder emissions, use mask with dust filter (P2 or P3) (AS1715/1716).

EYES: Use safety goggles, splash proof and / or appropriate full face shield (AS1336/1337).

HANDS: Gloves for chemical hazards (AS2161).

CLOTHING: Suit or plastic apron and safety footwear providing protection against acids/alkalis (AS3765/2210)

9. **PHYSICAL AND CHEMICAL PROPERTIES**

- a. Physical state: Liquid
- b. Colour: Pale Yellow
- c. Odour: Chlorine
- d. pH: 12-13
- e. Melting point/freezing point: 0°C
- f. Initial boiling point and boiling range – 100°C
- g. Flash point: NA
- h. Flammability – not applicable: NA
- i. Upper/lower flammability or explosive limits – Not applicable : NA
- j. Vapour pressure <2.4 kPa (at 20 °C)
- k. Relative density 2.13 g/cm³

- l. Solubility – Miscible in water:
418 g/L (0 °C)
1110 g/L (20 °C)
3370 g/L (100 °C)
- m. Auto-ignition temperature: Not available
- n. Specific Gravity – 1.2 @ 20°C
- o. Density – 1.11g/cm³
- p. Fast or Intensely Burning Characteristics: Highly exothermal reaction with strong acids. Reacts dangerously with acetic acid, allyl chloride, chlorine trifluoride, chloroform, methylic alcohol, chloronitrotoluene, chlorosulphonic acid, glyoxal, cyanohydrin, hydrochloric acid, hydrofluoric acid, hydroquinone, nitric acid, sulphuric acid and oleum, nitropropane, phosphorous, propiolactone, phosphorous pentoxide, tetrachlorobenzene, tetrahydrofuran, etc. Caustic soda forms salts with nitromethane and nitroparaffins that explode on impact.
- q. Properties That May Initiate or Contribute to Fire Intensity: Caustic soda forms salts with nitromethane and nitroparaffins that explode on impact.
- r. Reactions That Release Gases or Vapours: Reacts with aluminium, tin, zinc and their alloys, copper, lead, etc. giving off hydrogen.

10. STABILITY AND REACTIVITY

- a. Reactivity: Contact with acids liberates toxic gas
- b. Chemical stability: Product is stable under normal ambient and anticipated storage and handling conditions of use, storage and temperature and pressure. The amount of available chlorine diminishes over time.
- c. Possibility of Hazardous reactions: Hazardous polymerisation will not occur. Reacts exothermically with acids. Reacts with ammonia, amines and ammonium salts to produce chloramines. Decomposes on heating to produce chlorine gas.
- d. Conditions to avoid: Do not expose to the elements for excessive periods, to prevent degradation of the container.
Avoid contact with foodstuffs.
Only mix with water.
Avoid exposure to extreme heat, sources of ignition, and open flame.
Avoid exposure to light.
Avoid contact with other chemicals.
Avoid contact with acids.
- e. Incompatible materials: Incompatible with acids, metals , metal salts , peroxides , reducing agents , and ethylene diamine tetraacetic acid . Incompatible with ammonia and ammonium such as amines and ammonium salts. Aluminium, tin, zinc and their alloys, copper, lead, etc. Acetic acid, allyl chloride, chlorine trifluoride, chloroform, methylic alcohol, chloronitrotoluene, chlorosulphonic acid, glyoxal, cyanohydrin, hydrochloric acid, hydrofluoric acid, hydroquinone, nitric acid, sulphuric acid and oleum, nitropropane, phosphorous, propiolactone, phosphorous pentoxide, tetrachlorobenzene, tetrahydrofuran, nitromethane and nitroparaffins. Caustic soda

forms salts with nitromethane and nitroparaffins that explode on impact. Caustic soda solution reacts readily with various reducing sugars (ie: fructose, galactose, maltose, dry whey solids) to produce carbon monoxide.

- f. Hazardous decomposition products: Chlorine Reacts with aluminium, tin, zinc and their alloys, copper, lead, etc. giving off hydrogen. When the product decomposes, toxic sodium oxide gases are given off

11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Ingestion: Swallowing can result in nausea, vomiting, diarrhoea, abdominal pain and chemical burns to the gastrointestinal tract.

Eye contact: A severe eye irritant. Corrosive to eyes; contact can cause corneal burns. Contamination of eyes can result in permanent injury.

Skin contact: Contact with skin will result in severe irritation. Corrosive to skin - may cause skin burns.

Inhalation: Breathing in mists or aerosols may produce respiratory irritation. Delayed (up to 48 hours) fluid build-up in the lungs may occur.

Acute toxicity: No LD50 data available for the product.

For the constituent SODIUM HYPOCHLORITE:

Oral LD50 (mice): 5800 mg/kg

For the constituent SODIUM HYDROXIDE:

Oral LDLO Rabbit: 500 mg/kg

Skin, Rabbit, Adult, 500 mg/24h Severe irritation

Eye, Rabbit, Adult 50mg/24h Severe irritation

Intra peritoneal, Mouse, LD50 40mg/kg

Serious eye damage/irritation: Moderate irritant (rabbit). Standard Draize test

12. ECOLOGICAL INFORMATION

- a. Ecotoxicity: Avoid contaminating waterways

Acute toxicity to fish LC50 (lethal concentration, 50%): All available tests resulted in a range of toxicity values between 35 to 189 mg/l.

Acute toxicity to crustaceans EC50 (effect concentration, 50%): Species: Ceriodaphnia. 40.4 mg/l (48 h; based on immobility).

- b. Persistence and degradability: This material is Readily biodegradable
- c. Bio-accumulative potential: Not expected to bioconcentrate in organisms. In addition, sodium is a naturally-occurring element that is prevalent in the environment and to which organisms are exposed regularly, for which they have some capacity to regulate the concentration in the organism.

13. DISPOSAL CONSIDERATIONS

Refer to Waste Management Authority. Dispose of containers in accordance with local/regional/national/international regulations. Dispose of material through a licensed waste contractor. Decontamination and destruction of containers should be considered.

Do not allow waste to enter waterways.

14. TRANSPORT INFORMATION

Contains materials classified as **DANGEROUS GOODS** by the criteria of the Australian Dangerous Goods Code (ADG Code) for Transport by Road and Rail.; Dangerous Goods.

Contains materials classified as **DANGEROUS GOODS** by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea. ; Dangerous Goods.

Contains materials classified as **DANGEROUS GOODS** by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.; Dangerous Goods.

Proper shipping name or technical name: Hypochlorite Solution

UN number: 1791

Transport hazard class: 8 Corrosive

Packing group: III

Hazchem or emergency action code: 2X

IMDG EMS Fire: F-A

IMDG EMS Spill: S-B

Proper shipping name or technical name: Sodium Hydroxide Solution

UN number: 1824

Transport hazard class: 8 Corrosive

Packing group: III

Hazchem or emergency action code: 2X

IMDG EMS Fire: F-A

IMDG EMS Spill: S-B

Proper shipping name or technical name: Potassium Hydroxide Solution

UN number: 1814

Transport hazard class: 8 Corrosive

Packing group: III

Hazchem or emergency action code: 2X

IMDG EMS Fire: F-A

IMDG EMS Spill: S-B

15. REGULATORY INFORMATION

Classified as HAZARDOUS according to criteria of the Globally Harmonised System of Classification and Labelling of Chemicals 3rd Revised Edition.

Class:

Skin Corrosion - Sub-corrosion/irritation – category 1C

Eye Damage -1A

Corrosive to metals – Category 1

Acute Aquatic Toxicity - Category 1

Hazard Statement(s):

H290: May be corrosive to metals

H314: Causes severe skin burns and eye damage.

H400 Very toxic to aquatic life.

Poisons Schedule (SUSMP): S6.

16. OTHER RELEVANT INFORMATION

This Safety Data Sheet (SDS) has been prepared by Dalcon Hygiene

Reason(s) for Issue:

- Alignment to GHS requirements

This SDS summarises to the best of our knowledge at the date of issue, the chemical health and safety hazards of the material and provides general guidelines on how to safely handle the material. Dalcon Hygiene cannot anticipate or control the conditions under which the product may be used, stored and transported, therefore, each user must, prior to usage, assess and control the possible risks.

If clarification or further information is required, the user should contact Dalcon Hygiene at the contact details in section 1d.

By using this product, the user agrees that they have read and understood this SDS, and, knowing the risks associated with the product, wish to use the product.