

# Safety Data Sheet



Hazardous Chemical, Dangerous Goods

## 1. MATERIAL AND SUPPLY COMPANY IDENTIFICATION

Product name: Purex Knock Out - Flexi

### Synonyms

Purex Knock Out - Flexi

### Product Code

500 gms

**Recommended use:** Swimming pool Chemical, Algaecide, Biocide, Water purification and Oxidant

**Supplier:** Price Chemicals Pty Ltd

**ABN:** 42 603 386 849

**Street Address:** 10 Pile Road  
Somersby NSW 2250  
Australia

**Telephone:** 02 4340 0088

**Emergency Telephone number:** 02 4340 0088 (9am-4:30pm; Mon-Fri, AEST)

## 2. HAZARDS IDENTIFICATION

This material is hazardous according to health criteria of Safe Work Australia.



### Signal Word

Danger

### Hazard Classifications

Oxidising Solids - Category 2

Acute Toxicity - Dermal - Category 4

Skin Corrosion/Irritation - Category 1B

Serious Eye Damage/Irritation - Category 1

Specific Target Organ Toxicity (Single Exposure) - Category 3 Respiratory Tract Irritation

### Hazard Statements

H272 May intensify fire; oxidizer.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H335 May cause respiratory irritation.

### Prevention Precautionary Statements

P102 Keep out of reach of children.

P103 Read label before use.

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P220 Keep/Store away from clothing/combustible materials.

P221 Take any precaution to avoid mixing with combustibles.

P260 Do not breathe dust, fume, gas, mist, vapours or spray.

P264 Wash hands, face and all exposed skin thoroughly after handling.

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

P273 Avoid release to the environment.

P280 Wear protective clothing, gloves, eye/face protection and suitable respirator.

# Safety Data Sheet



## Response Precautionary Statements

- P101 If medical advice is needed, have product container or label at hand.  
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
P302+P352 IF ON SKIN: Wash with plenty of soap and water.  
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position 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.  
P363 Wash contaminated clothing before reuse.  
P391 Collect spillage.

## Storage Precautionary Statements

- P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
P405 Store locked up.

## Disposal Precautionary Statement

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

**Poison Schedule:** S6. Poison

## DANGEROUS GOOD CLASSIFICATION

Classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

**Dangerous Goods Class:** 5.1

## 3. COMPOSITION INFORMATION

| CHEMICAL ENTITY                            | CAS NO    | PROPORTION    |
|--|-----------|---------------|
| Calcium hydroxide (Ca(OH) <sub>2</sub> )   | 1305-62-0 | 0-4 % (w/w)   |
| Hypochlorous acid, calcium salt            | 7778-54-3 | 65-75 % (w/w) |
| Ingredients determined to be Non-Hazardous |           | Balance       |

## 4. FIRST AID MEASURES

If poisoning occurs, contact a doctor or Poisons Information Centre (Phone Australia 131 126, New Zealand 0800 764 766).

**Inhalation:** Remove victim from exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. Seek medical advice if effects persist.

**Skin Contact:** This material, or a component of the material, can be absorbed through the skin with resultant toxic effects. If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. If swelling, redness, blistering or irritation occurs seek medical assistance. For gross contamination, immediately drench with water and remove clothing. Continue to flush skin and hair with plenty of water (and soap if material is insoluble). For skin burns, cover with a clean, dry dressing until medical help is available. If blistering occurs, do NOT break blisters. If swelling, redness, blistering, or irritation occurs seek medical assistance.

# Safety Data Sheet



**Eye contact:** Immediately irrigate with copious quantities of water for 15 minutes. Eyelids to be held open. Remove clothing if contaminated and wash skin. Urgently seek medical assistance. Transport to hospital or medical centre.

**Ingestion:** Rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water to drink. Never give anything by the mouth to an unconscious patient. If vomiting occurs give further water. Seek medical advice.

**Notes to physician:** Treat symptomatically. Can cause corneal burns.

## 5. FIRE FIGHTING MEASURES

**Hazchem Code:** 1W

**Suitable extinguishing media:** If material is involved in a fire use water fog (or if unavailable fine water spray), alcohol resistant foam, standard foam, dry agent (carbon dioxide, dry chemical powder).

**Specific hazards:** May intensify fire; oxidiser.

**Fire fighting further advice:** On burning or decomposing may emit toxic fumes. Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion or decomposition.

## 6. ACCIDENTAL RELEASE MEASURES

### SMALL SPILLS

Wear protective equipment to prevent skin and eye contamination. Avoid inhalation of vapours or dust. Wipe up with absorbent (clean rag or paper towels). Collect and seal in properly labelled containers or drums for disposal.

### LARGE SPILLS

If safe to do so, shut off all possible sources of ignition. Clear area of all unprotected personnel. Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contamination and the inhalation of dust. Work up wind or increase ventilation. Cover with damp absorbent (inert material, sand or soil). Sweep or vacuum up, but avoid generating dust. Use a spark-free shovel. Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.

**Dangerous Goods – Initial Emergency Response Guide No:** 31

## 7. HANDLING AND STORAGE

**Handling:** Avoid eye contact and skin contact. Avoid inhalation of dust.

**Storage:** Store in a cool, dry, well-ventilated place and out of direct sunlight. Store away from foodstuffs. Store away from incompatible materials described in Section 10. Store away from sources of heat and/or ignition. Store locked up. Keep container standing upright. Keep containers closed when not in use - check regularly for spills.

This material is classified as a Division 5.1 Oxidising Substance as per the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and/or the "New Zealand NZS5433: Transport of Dangerous Goods on Land" and must be stored in accordance with the relevant regulations.

This material is a Scheduled Poison Schedule 6 (Poison) and must be stored, maintained and used in accordance with the relevant regulations.

# Safety Data Sheet



## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### National occupational exposure limits:

|                   | TWA |                   | STEL |                   | NOTICES |
|-------------------|-----|-------------------|------|-------------------|---------|
|                   | ppm | mg/m <sup>3</sup> | ppm  | mg/m <sup>3</sup> |         |
| Calcium hydroxide | -   | 5                 | -    | -                 | -       |

As published by Safe Work Australia.

TWA - The time-weighted average airborne concentration over an eight-hour working day, for a five-day working week over an entire working life.

STEL (Short Term Exposure Limit) - the average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday.

These Exposure Standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept too as low a level as is workable. These 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.

If the directions for use on the product label are followed, exposure of individuals using the product should not exceed the above standard. The standard was created for workers who are routinely, potentially exposed during product manufacture.

**Biological Limit Values:** As per the "National Model Regulations for the Control of Workplace Hazardous Substances (Safe Work Australia)" the ingredients in this material do not have a Biological Limit Allocated.

**Engineering Measures:** Ensure ventilation is adequate to maintain air concentrations below Exposure Standards. Use only in well ventilated areas. Avoid generating and inhaling dusts. Use with local exhaust ventilation or while wearing dust mask.

**Personal Protection Equipment:** SAFETY SHOES, OVERALLS, GLOVES, CHEMICAL GOGGLES, RESPIRATOR.

Wear safety shoes, overalls, gloves, chemical goggles, respirator. Use with adequate ventilation. If inhalation risk exists wear organic vapour/particulate respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716. Available information suggests that gloves made from nitrile rubber should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

**Hygiene measures:** Keep away from food, drink and animal feeding stuffs. When using do not eat, drink or smoke. Wash hands prior to eating, drinking or smoking. Avoid contact with clothing. Avoid eye contact and skin contact. Avoid inhalation of dust. Ensure that eyewash stations and safety showers are close to the workstation location.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Base Units:** Kilogram  
**Form:** Granules  
**Colour:** White  
**Odour:** Chlorine Odour

**Solubility:** Soluble in water  
**Solubility in water:** 21g/100ml (25c)  
**Specific Gravity (20 °C):** 2.35 (20C) ( water=1)

# Safety Data Sheet



|                                       |                     |
|---------------------------------------|---------------------|
| Density:                              | N/A                 |
| Relative Vapour Density (air=1):      | 6.9                 |
| Vapour Pressure (20 °C):              | 6.9                 |
| Flash Point (°C):                     | N/A                 |
| Flammability Limits (%):              | N/A                 |
| Autoignition Temperature (°C):        | N/A                 |
| Melting Point/Range (°C):             | N/A                 |
| Pour Point/Range (°C):                | N/A                 |
| Boiling Point/Range (°C):             | N/A                 |
| Decomposition Point (°C):             | N/A                 |
| Sublimation Point (°C):               | N/A                 |
| Dropping Point (°C):                  | N/A                 |
| pH:                                   | 10.8 (10% solution) |
| Viscosity:                            | N/A                 |
| Surface Tension:                      | N/A                 |
| Evaporation Rate (n-Butyl acetate=1): | N/A                 |
| Partition Coefficient:                | N/A                 |
| Total VOC (g/Litre):                  | N/A                 |
| Odour Threshold:                      | N/A                 |
| Explosive properties:                 | N/A                 |
| Oxidising properties:                 | N/A                 |
| % Volatile by Volume:                 | N/A                 |
| Molecular Formula:                    | N/A                 |
| Molecular Weight:                     | N/A                 |

(Typical values only - consult specification sheet)  
N Av = Not available, N App = Not applicable

## 10. STABILITY AND REACTIVITY

**Chemical stability:** If material comes in contact with water toxic gases/vapours may evolve.

**Conditions to avoid:** Elevated temperatures and sources of ignition.

**Incompatible materials:** Reducing agents, combustible materials and acids.

**Hazardous decomposition products:** Chlorine

**Hazardous reactions:** Reacts with water liberating toxic chlorine gas. Contact with acids liberates toxic gas.

## 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:

### Acute Effects

**Inhalation:** Material is an irritant to mucous membranes and respiratory tract.

**Skin contact:** Harmful in contact with skin. Can be absorbed through the skin with resultant toxic effects. Contact with skin will result in severe irritation. Corrosive to skin - may cause skin burns.

**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. Exposure to the dust may cause discomfort due to particulate nature. May cause

# Safety Data Sheet



physical irritation to the eyes.

## Acute toxicity

**Inhalation:** This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >5 mg/L

**Skin contact:** This material has been classified as a Category 4 Hazard. Acute toxicity estimate (based on ingredients): 1,000 - 2,000 mg/Kg

**Ingestion:** This material has been classified as non-hazardous. Acute toxicity estimate (based on ingredients): >2,000 mg/Kg

**Corrosion/Irritancy:** Eye: this material has been classified as a Category 1 Hazard (irreversible effects to eyes). Skin: this material has been classified as a Category 1B Hazard (irreversible effects to skin).

**Sensitisation:** Inhalation: this material has been classified as not a respiratory sensitiser. Skin: this material has been classified as not a skin sensitiser.

**Aspiration hazard:** This material has been classified as non-hazardous.

**Specific target organ toxicity (single exposure):** This material has been classified as a Category 3 Hazard. Exposure via inhalation may result in respiratory irritation.

## Chronic Toxicity

**Mutagenicity:** This material has been classified as non-hazardous.

**Carcinogenicity:** This material has been classified as non-hazardous.

**Reproductive toxicity (including via lactation):** This material has been classified as non-hazardous.

**Specific target organ toxicity (repeat exposure):** This material has been classified as non-hazardous.

## 12. ECOLOGICAL INFORMATION

Avoid contaminating waterways.

**Acute aquatic hazard:** This material has been classified as a Category Acute 1 Hazard. Acute toxicity estimate (based on ingredients): <1 mg/L

**Long-term aquatic hazard:** This material has been classified as non-hazardous. Non-rapidly or rapidly degradable substance for which there are adequate chronic toxicity data available OR in the absence of chronic toxicity data, Acute toxicity estimate (based on ingredients): >100 mg/L, where the substance is not rapidly degradable and/or BCF < 500 and/or log K<sub>ow</sub> < 4.

**Ecotoxicity:** No information available.

**Persistence and degradability:** No information available.

**Bioaccumulative potential:** No information available.

**Mobility:** No information available.

## 13. DISPOSAL CONSIDERATIONS

Persons conducting disposal, recycling or reclamation activities should ensure that appropriate personal

# Safety Data Sheet



protection equipment is used, see "Section 8. Exposure Controls and Personal Protection" of this SDS.

If possible material and its container should be recycled. If material or container cannot be recycled, dispose in accordance with local, regional, national and international Regulations.

## 14. TRANSPORT INFORMATION

### ROAD AND RAIL TRANSPORT

Classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".



**UN No:** 2880  
**Dangerous Goods Class:** 5.1  
**Packing Group:** II  
**Hazchem Code:** 1W  
**Emergency Response Guide No:** 31

**Proper Shipping Name:** CALCIUM HYPOCHLORITE, HYDRATED MIXTURE

**Segregation Dangerous Goods:** Not to be loaded with explosives (Class 1), flammable gases (Class 2.1), toxic gases (Class 2.3), flammable liquids (Class 3), flammable solids (Class 4.1), spontaneously combustible substances (Class 4.2), dangerous when wet substances (Class 4.3), organic peroxides (Class 5.2), radioactive substances (Class 7), corrosive substances (Class 8), fire risk substances or combustible liquids. Also note that fire risk substances including dangerous goods of Class 6 or Class 9 which are fire risk substances are incompatible with dangerous goods of Class 1, Class 5.1 and Class 5.2. Exemptions may apply.

### MARINE TRANSPORT

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.



**UN No:** 2880  
**Dangerous Goods Class:** 5.1  
**Packing Group:** II

**Proper Shipping Name:** CALCIUM HYPOCHLORITE, HYDRATED MIXTURE

### AIR TRANSPORT

Classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.



**UN No:** 2880

# Safety Data Sheet



**Dangerous Goods Class:** 5.1  
**Packing Group:** II

**Proper Shipping Name:** CALCIUM HYPOCHLORITE, HYDRATED MIXTURE

## 15. REGULATORY INFORMATION

**This material is not subject to the following international agreements:**

Montreal Protocol (Ozone depleting substances)  
The Stockholm Convention (Persistent Organic Pollutants)  
The Rotterdam Convention (Prior Informed Consent)

**This material is subject to the following international agreements:**

Basel Convention (Hazardous Waste)

- Basic solutions or bases in solid form

International Convention for the Prevention of Pollution from Ships (MARPOL)

- Annex II - Noxious Liquid Substances carried in Bulk
- Annex III - Harmful Substances carried in Packaged Form

**This material/constituent(s) is covered by the following requirements:**

- The Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) established under the Therapeutic Goods Act (Commonwealth).
- All components of this product are listed on or exempt from the Australian Inventory of Chemical Substances (AICS).
- The Agricultural and Veterinary Chemicals Act (Commonwealth) and/or applicable Commonwealth, State or Territory control-of-use legislation.
- All components of this product are listed on or exempt from the New Zealand Inventory of Chemical (NZIoC).

**HSNO Group Standard:** HSR002683 - Water Treatment Chemicals (Oxidising [5.1.1]) Group Standard 2006

## 16. OTHER INFORMATION

Reason for issue: Revised

This information was prepared in good faith from the best information available at the time of issue. It is based on the present level of research and to this extent we believe it is accurate. However, no guarantee of accuracy is made or implied and since conditions of use are beyond our control, all information relevant to usage is offered without warranty. The manufacturer will not be held responsible for any unauthorised use of this information or for any modified or altered versions.

If you are an employer it is your duty to tell your employees, and any others that may be affected, of any hazards described in this sheet and of any precautions that should be taken.

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