


1. Identification

Product identifier	Chloro-Sani-Det, Hospital Grade	
Recommended use of the chemical and restrictions on use	A highly concentrated, high foaming, chlorinated detergent and sanitiser. It is particularly suitable to application on bathroom tiled surfaces. This product has been designed for use in food preparation areas common to the meat and fishing industry.	
Details of manufacturer or importer	Company Name	Chemwell Pty Ltd ABN 94 155 544 040
	Address	3 Clive St, Springvale, VIC, 3171
	Phone	03 9558 5678
	Email	chemwell@chemwell.com.au
	Website	www.chemwell.com.au
Emergency phone number	Police, Fire & Ambulance	000
	Poisons Information Centre	13 11 26

2. Hazard(s) Identification

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

Considered as a 'Dangerous Good' by the Australian Code for transport of Dangerous Goods by Road and Rail.

Classification of the hazardous chemical	Acute Aquatic Toxicity 1 Corrosive to metals 1 Eye Damage/Irritation 1 Skin Corrosion/Irritation 1
Hazard symbols	
Signal word(s)	Danger
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)	Prevention	P234 - Keep only in original container. P260 - Do not breathe dust/fumes/gas/mist/vapours/spray. P264 - Wash thoroughly after handling. P280 - Wear protective gloves/protective clothing/eye protection/face protection. P273 - Avoid release to the environment.
	Response	P391 - Collect spillage. P301+330+331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P303+361+353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. P363 - Wash contaminated clothing before reuse. P304+340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. P310 - Immediately call a POISON CENTER or doctor. P321 - Specific treatment (see ... on this label). P305+351+338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
	Storage	P405 - Store locked up. P406 - Store in a corrosive resistant container with a resistant inner liner.
	Disposal	P501 - Dispose of contents/container to in accordance with local regulation.

3. Composition and Information on Ingredients

Name	Proportion
Sodium Hydroxide	<10%
Sodium Hypochlorite 12.5% solution	30-60%
Sodium Lauryl Ether Sulfate 25% solution	<10%
Amine Oxide	10-30%
Sodium Xylene Sulphonate	<10%

Disclosure of ingredients is only required if an ingredient causes the classification of the chemical to include a hazard class and hazard category in the following list:

- Acute toxicity (oral, dermal and inhalation) – Category 1 to 4
- Respiratory sensitiser – Category 1
- Skin sensitiser – Category 1
- Mutagenicity – Category 1 or 2
- Carcinogenicity – Category 1 or 2
- Toxic to reproduction – Category 1 or 2

- Target organ toxicity (single exposure) – Category 1 or 2
- Target organ toxicity (repeat exposure) – Category 1 or 2
- Aspiration hazards – Category 1
- Skin corrosion or irritation – Category 1 or 2
- Serious eye damage or eye irritation – Category 1 or 2A

4. First Aid Measures

Swallowed	Immediately rinse mouth out thoroughly with water and give water to drink. DO NOT induce vomiting. Seek medical advice.
Eye	Immediately irrigate eyes with large amounts of water for at least 15 minutes with eyelids held open. Take care not to rinse contaminated water into the non-affected eye. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel. Seek medical advice.
Skin	Immediately wash affected area with large amounts of water. Remove any contaminated clothing and wash before re-use. Seek medical advice if pain or irritation persists.
Inhaled	For all but minor symptoms seek medical advice. Not considered a normal feature of use.
First Aid Facilities	Standard first aid facilities.
Advice to Doctor	Treat symptomatically based on judgement of doctor and individual reactions of patient.

5. Fire Fighting Measures

Suitable extinguishing equipment	Use water spray, alcohol-resistant foam, dry agent (carbon dioxide, dry chemical powder).
Specific hazards arising from the chemical	<p>During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Hazardous products of combustion for each ingredient are:</p> <p>Ingredient 1) Reacts with aluminium, tin, zinc and their alloys, copper, lead, etc. giving off hydrogen.</p> <p>Ingredient 2) Under fire conditions this product may emit toxic and/or irritating vapours and gases including chlorine gas and hydrogen chloride gas.</p> <p>Ingredient 3) Decomposition products include: carbon dioxide (CO₂) and sulfur oxides (SO_x).</p> <p>Ingredient 4) Decomposes on heating and may produce toxic fumes of carbon monoxide (CO).</p> <p>Ingredient 5) Decomposition may produce toxic fumes of sulfur oxides (SO_x), metal oxides. May emit poisonous fumes.</p>
Special protective equipment and precautions for fire fighters	Wear positive-pressure, self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). Avoid contact with this material during fire fighting operations. If contact is likely, change to full chemical resistant fire fighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For

	<p>protective equipment in post-fire or non-fire clean-up situations, refer to the relevant section.</p> <p>Container may rupture from gas generation in a fire situation. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids.</p> <p>HazChem (EAC): 2X</p>
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6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	<p>Personnel involved in the clean-up should wear protective clothing as listed in section 8. Use clean, non-sparking tools and equipment. Avoid breathing vapours and contact with skin and eyes. Remove contaminated clothing and wash before reuse.</p> <p>Eliminate all sources of ignition. Increase ventilation.</p> <p>Avoid walking through spilled product as it may be slippery. Stop leak if safe to do so. Clean up all spills immediately. Clear area of all unnecessary personnel.</p>
Environmental precautions	Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.
Methods and materials for containment and cleaning up	<p>Avoid walking through spilled product as it may be slippery. Stop leak if safe to do so. This may involve tipping container on its side. Clean up all spills immediately. Clear area of all unnecessary personnel. If safe to do so repack leaking container into new container.</p> <p>Place inert, absorbent, non-combustible material onto spillage. Wipe up. Place in a suitable, labelled container for waste disposal.</p>

7. Handling and Storage

Handling	<p>Observe good personal hygiene practices and recommended procedures. Wash thoroughly after handling. Check Section 8 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 counteracting workplace. Also, avoid contact or contamination of product with incompatible materials listed in Section 10.</p>
Storage	Storage

8. Exposure Controls and Personal Protection

Exposure standards	<p>No value assigned for this specific material by Safe Work Australia. However, Exposure Standard(s) for ingredient(s) are:</p> <p>Ingredient 1) No Data Available</p> <p>Ingredient 2) Chlorine: Peak Limitation = 3 mg/m³ (1 ppm) Sodium hydroxide: Peak Limitation = 2 mg/m³</p> <p>Ingredient 3) No Data Available</p> <p>Ingredient 4) Not Available.</p> <p>Ingredient 5) Not Available.</p>
Biological limits	<p>Biological limits for ingredient(s) are:</p> <p>Ingredient 1) No information available on biological limit values for this product.</p> <p>Ingredient 2) None specified.</p> <p>Ingredient 3) No information available on biological limit values for this product.</p> <p>Ingredient 4) None specified.</p> <p>Ingredient 5) None specified.</p>
Engineering controls	<p>Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to reduce the risk. Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.</p>

Personal protective equipment (PPE)	Safety glasses with side shields. Chemical protective gloves.
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9. Physical and Chemical Properties

Appearance (physical state, colour etc.)	A clear, straw coloured liquid
Odour	Chlorine fragrance
Odour threshold	Not specified
pH	11.5-12.5
Melting point/freezing point	Not specified
Initial boiling point and boiling range	Not specified
Flash point	Not flammable
Evaporation rate	Not specified
Flammability (solid, gas)	Not specified
Upper/lower flammability or explosive limits	Not specified
Rejonasus Factor	Not specified
Vapour pressure	Not specified
Vapour density	Not specified
Relative density	Not specified
Solubility	Soluble in water
Partition coefficient: n-octanol/water	Not specified
Auto-ignition temperature	Not specified
Decomposition temperature	Not specified
Viscosity	Not specified

10. Stability and Reactivity

Reactivity	Reacts exothermically with acids. Will react with acid compounds to create toxic gas. Undiluted product attacks metals forming combustible gas (hydrogen).
Chemical stability	Stable under normal ambient storage and handling conditions.
Possibility of hazardous reactions	No data available.
Conditions to avoid	No data available.

Incompatible materials	No data available.
Hazardous decomposition products	See section 5.

11. Toxicological Information

Acute Toxicity, Dermal	Not Applicable
Acute Toxicity, Dusts And Mists	Not Applicable
Acute Toxicity, Gases	Not Applicable
Acute Toxicity, Inhalation	Not Applicable
Acute Toxicity, Oral	Not Applicable
Acute Toxicity, Vapours	Not Applicable
Skin Corrosion/Irritation	Category 1
Eye Damage/Irritation	Category 1
Respiratory Sensitization	Not Applicable
Skin Sensitization	Not Applicable
Germ Cell Mutagens	Not Applicable
Carcinogenicity	Not Applicable
Reproductive Toxicity	Not Applicable
Specific Target Organ Toxicity RE	Not Applicable
Specific Target Organ Toxicity SE	Not Applicable
Aspiration Hazard	Not Applicable

Toxicological Information for Sodium Hydroxide

General Information:

Animal Toxicity

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

Specific target organ toxicity - repeated exposure: Corrosive substance. In addition, the substance is not expected to be systemically available in the body under normal handling and use conditions and therefore systemic effects of the substance after repeated exposure are not expected to occur.

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction);

Carcinogenicity: The substance did not induce mutagenicity in in vitro and in vivo studies (EU RAR, 2007). Systemic carcinogenicity is not expected to occur because the substance is not expected to be systemically available in the body under normal handling and use conditions.

Germ cell mutagenicity: Both the in vitro and the in vivo genetic toxicity tests indicated no evidence of mutagenic activity. Furthermore the substance is not expected to be systemically available in the body under normal handling and use conditions and for this reason additional testing is considered unnecessary (EU RAR, 2007).

Reproductive toxicity: The substance is not expected to be systemically available in the body under normal handling and use conditions and for this reason it can be stated that the substance will not reach the foetus nor reach male and female reproductive organs.

Reproductive toxicity, effects on or via lactation; The substance is not expected to be systemically available in the body under normal handling and use conditions and for this reason additional testing is considered unnecessary.

Eye Irritant: Causes severe burns. Can cause ulceration of the conjunctiva and cornea.

Ingestion: Causes severe burns. Burns to the mouth, esophagus, can cause intestinal perforation.

Inhalation: Causes severe burns. Irritation of the respiratory system.

Skin Irritant: Causes severe burns. Intense burning and ulcers penetrating the skin.

Carcinogen Category: 0

Toxicological Information for Sodium Hypochlorite 12.5% solution

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

Serious eye damage/irritation:

Moderate irritant (rabbit). Standard Draize test

Chronic effects: No information available for the product.

Toxicological Information for Sodium Lauryl Ether Sulfate 25% solution

General Information

No Data Available

Ingestion

This product is an oral irritant. Symptoms may include burning sensation and reddening of skin in mouth and throat. Other symptoms may also become evident, but all should disappear once exposure has ceased.

Inhalation

Product may be mildly irritating, although unlikely to cause anything more than mild transient discomfort.

Skin Irritant

Product is a skin irritant. Symptoms may include itchiness and reddening of contacted skin. Other symptoms may also become evident, but all should disappear once exposure has ceased.

Eye Irritant

This product is an eye irritant. Symptoms may include stinging and reddening of eyes and watering which may become copious. Other symptoms may also become evident. If exposure is brief, symptoms should disappear once exposure has ceased. However, lengthy exposure or delayed treatment may cause permanent damage.

Carcinogen Category

No Data Available

Toxicological Information for Amine Oxide

Inhaled The material is not thought to produce either adverse health effects or irritation of the respiratory tract following inhalation (as classified by EC Directives using animal models). Nevertheless, adverse systemic effects have been produced following exposure of animals by at least one other route and good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.

Ingestion Accidental ingestion of the material may be damaging to the health of the individual. Nonionic surfactants may produce localised irritation of the oral or gastrointestinal lining and induce vomiting and mild diarrhoea.

Skin Contact The material may accentuate any pre-existing dermatitis condition. Open cuts, abraded or irritated skin should not be exposed to this material. The material may cause mild but significant inflammation of the skin either following direct contact or after a delay of some time. Repeated exposure can cause contact dermatitis which is characterised by redness, swelling and blistering.

Eye If applied to the eyes, this material causes severe eye damage. Non-ionic surfactants can cause numbing of the cornea, which masks discomfort normally caused by other agents and leads to corneal injury. Irritation varies depending on the duration of contact, the nature and concentration of the surfactant.

Chronic Long-term exposure to the product is not thought to produce chronic effects adverse to the health (as classified by EC Directives using animal models); nevertheless exposure by all routes should be minimised as a matter of course. Prolonged or repeated skin contact may cause degreasing with drying, cracking and dermatitis following.

Toxicity Oral (rat) LD50: >1500 mg/kg

Irritation Nil Reported. [Albright]

Amine oxides are readily metabolised and excreted after oral intake. They produced no mortality or skin sensitization on exposure but caused reversible irritation of the eyes, skin and airways. They may also cause cataracts. Repeat dosing showed no abnormal changes except for diarrhoea and weight loss.

Toxicological Information for Sodium Xylene Sulphonate**Inhaled**

The material is not thought to produce either adverse health effects or irritation of the respiratory tract following inhalation (as classified by EC Directives using animal models). Nevertheless, adverse systemic effects have been produced following exposure of animals by at least one other route and good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. Inhalation hazard is increased at higher temperatures.

Ingestion

Accidental ingestion of the material may be damaging to the health of the individual. Ingestion of anionic surfactants may produce diarrhoea, bloated stomach, and occasional vomiting.

Skin Contact

There is some evidence to suggest that this material can cause inflammation of the skin on contact in some persons. Open cuts, abraded or irritated skin should not be exposed to this material. Anionic surfactants can cause skin redness and pain, as well as a rash. Cracking, scaling and blistering can occur.

Eye

There is some evidence to suggest that this material can cause eye irritation and damage in some persons. Direct eye contact with some anionic surfactants in high concentration can cause severe damage to the cornea. Low concentrations can cause discomfort, excess blood flow, and corneal clouding and swelling. Recovery may take several days.

Chronic

There is some evidence that inhaling this product is more likely to cause a sensitisation reaction in some persons compared to the general population. There is limited evidence that, skin contact with this product is more likely to cause a sensitisation reaction in some persons compared to the general population. Exposure to sulfonates can cause an imbalance in cellular salts and therefore cellular function. Airborne sulfonates may be responsible for respiratory allergies and, in some instances, minor dermal allergies.

No significant acute toxicological data identified in literature search.

Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound. Key criteria for the diagnosis of RADS include the absence of preceding respiratory disease, in a non-atopic individual, with abrupt onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. A reversible airflow pattern, on spirometry, with the presence of moderate to severe bronchial hyperreactivity on methacholine challenge testing and the lack of minimal lymphocytic inflammation, without eosinophilia, have also been included in the criteria for diagnosis of RADS.

12. Ecological Information

Acute Aquatic Toxicity	Category 1
Chronic Aquatic Toxicity	Not Applicable

Ecological Information for Ingredient 1

None specified.

Ecological Information for Ingredient 2

Ecotoxicity The hazard of the substance for the environment is caused by the hydroxyl ion (pH effect). For this reason the effect of the substance on the organisms depends on the buffer capacity of the aquatic or terrestrial ecosystem. The high water solubility and low vapour pressure indicate that the substance will be found predominantly in water. Also the variation in acute toxicity for aquatic organisms can be explained for a significant extent by the variation in buffer capacity of the test medium. LC50 values ranged between 33 and 189 mg/l.

Acute toxicity to fish: LC50 (lethal concentration, 50%): All available tests resulted in a range of toxicity values between 35 to 189 mg/l. However, in the majority of these test reports there were no data on pH variation.

Chronic toxicity to fish: NOEC (no observed effect concentration): It is not required to conduct this study since the substance dissociates in water and the only possible effect would result from the pH effect. However, pH will remain within environmentally expected ranges.

Acute toxicity to crustaceans: EC50 (effect concentration, 50%): Species: Ceriodaphnia. 40.4 mg/l (48 h; based on immobility). (Warne et al., 1999)

Chronic toxicity to crustaceans: NOEC (no observed effect concentration): it is not required to conduct this study since the substance dissociates in water and the only possible effect would result from the pH effect. However, pH will remain within environmentally expected ranges.

Toxicity data on soil micro- and macro-organisms and other environmentally relevant organisms, such as birds, bees and plants: If emitted to soil, sorption to soil particles will be negligible. Depending on the buffer capacity of the soil, OH⁻ will be neutralised in the soil pore water or the pH may increase. There is no direct exposure of soil to NaOH based on the available uses. In addition, no indirect exposure via air is expected as it rapidly neutralizes in air.

Persistence/Degradability Readily biodegradable Other relevant information Abiotic degradation: NaOH is a strong alkaline substance that dissociates completely in water to Na⁺ and OH⁻. High water solubility and low vapour pressure indicate that NaOH will be found predominantly in aquatic environment. This implies that it will not adsorb on particulate matter or surfaces. Atmospheric emissions as aerosols are rapidly neutralized by carbon dioxide and the salts will be washed out by rain.

Mobility High water solubility and mobility.

Environmental Fate Caustic soda may react violently with acids and water. Do not allow drainage into sewers, streams or storm conduits.

Bioaccumulation Potential Bioconcentration factor (BCF): experimental data: Considering its high water solubility, NaOH is 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. Partition coefficient: n-octanol/water (log Pow): Not applicable (inorganic substance).

Environmental Impact No Data Available

Ecological Information for Ingredient 3

Ecotoxicity Avoid contaminating waterways.

For SODIUM HYPOCHLORITE:

Persistence/degradability: This material is biodegradable.

Aquatic toxicity: Very toxic to aquatic organisms.

48hr LC50 (fish): 0.07 - 5.9 mg/L.

Ecological Information for Ingredient 4

Ecotoxicity No ecological information available for this product.

Persistence/Degradability No information available on persistence/degradability for this product.

Mobility No information available on mobility for this product.

Environmental Fate Avoid contaminating waterways, drains and sewers.

Bioaccumulation Potential No information available on bioaccumulation for this product.

Environmental Impact No Data Available

Ecological Information for Ingredient 5

Toxicity

Very toxic to aquatic organisms. Do NOT allow product to come in contact with surface waters or to intertidal areas below the mean high water mark. Do not contaminate water when cleaning equipment or disposing of equipment wash-waters. Wastes resulting from use of the product must be disposed of on site or at approved waste sites.

Persistence and degradability Not Available

Bioaccumulative potential Not Available

Mobility in soil Not Available

Ecological Information for Ingredient 6

Toxicity For Surfactants: Kow cannot be easily determined due to hydrophilic/hydrophobic properties of the molecules in surfactants. BCF value: 1-350. Aquatic Fate: Surfactants tend to accumulate at the interface of the air with water and are not extracted into one or the other liquid phases.

Persistence and degradability Not Available

Bioaccumulative potential Not Available

Mobility in soil Not Available

13. Disposal considerations

Dispose of in accordance with all local, state and federal regulations. All empty packaging should be disposed of in accordance with Local, State, and Federal Regulations or recycled/reconditioned at an approved facility.

14. Transport Information

Considered as a 'Dangerous Good' by the Australian Code for transport of Dangerous Goods by Road and Rail.

UN Number	1760
Proper shipping name or Technical Name	Corrosive liquids, n.o.s.
Transport hazard class	8
Packing Group	I
Environmental hazards for Transport Purposes	Classified as having an acute aquatic toxicity.
UFAC Code	TANZ A34A
Special Precautions for user	None specified
Additional Information	None specified
Hazchem or Emergency Action Code	2X

15. Regulatory Information

No information in this section.

16. Other information

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