



Section 1: Identification of the Material and Supplier

Product Name: Chlor Klenz Alkaline Chlorinated CIP Detergent.

Other Names: Sodium hydroxide solution containing sodium hypochlorite.

Proper shipping name (ADG Code):
Corrosive liquid, basic, inorganic, n.o.s.
(sodium hydroxide, sodium hypochlorite)

Recommended use: As a heavy duty, chlorinated, alkaline detergent, for the removal of fat and protein deposits.
Use as directed on the product label.

Supplier: DASCO Pty. Ltd.,
ABN: 14 004 581 113
24 - 26 Helen Street, HEIDELBERG HEIGHTS VIC 3081
Tel: (03) 9459 7004 (business hours)
Fax: (03) 9459 9200

Emergency Phone Numbers:
Transport/Fire Emergency: 000 (Emergency services)
Medical Emergency: 131126 (Poisons Information Centre)

Section 2: Hazards Identification

Classified as hazardous according to criteria of Worksafe Australia.

Dangerous goods.

Risk Phrases: R: 35 Causes severe burns.

Safety Phrases: S: 1/2 Keep locked up and out of the reach of children.
S: 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S: 37/39 Wear suitable gloves and eye/face protection.
S: 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Section 3: Composition/Information on Ingredients

Ingredients:

Sodium hydroxide	[1310-73-2]	10 - 30 %
Sodium hypochlorite	[7681-52-9]	< 10 %
Other ingredients		< 10 %
Water	[7732-18-5]	to 100 %
Available chlorine	[7782-50-5]	5.04 %

Section 4: First Aid Measures

For advice, contact a Poisons Information Centre (Phone 131 126) or a doctor.

Swallowed: Do not induce vomiting.

Skin: If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Wash clothing thoroughly before re-use.

Eyes: If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.

Inhaled: Remove from exposure, rest and keep warm. Unless exposure has been slight, obtain medical attention.

First Aid facilities:

Mandatory: Eye wash. Hand wash basin.

Recommended: Emergency shower if handling industrial quantities.

Advice to Doctor:

Product is a concentrated solution of sodium hydroxide containing a low proportion of sodium hypochlorite. Corrosive to living tissues. Risk of serious damage to eyes. If swallowed, may cause holes in stomach and intestines; gastric lavage may be contraindicated. Contact Poisons Information Centre.

Aggravated medical conditions:

Pre-existing skin disorders.

Section 5: Fire Fighting Measures

HAZCHEM Code: 2 X

Extinguishant: Water fog or fine water spray.

Risk of violent reaction or explosion: No.

Products of combustion: Water vapour, chlorine, hydrogen chloride.

Protective Equipment: Full protective clothing including breathing apparatus and protective gloves.

Section 6: Accidental Release Measures

Emergency Procedures:

Contain.
Increase ventilation.
Prevent spillage entering natural waters or the environment.

For large spills:

Contain spillage using sand or earth. Transfer both liquids and solids to suitable container. Treat residues as for small spillages.

For small spills:

If local regulations permit, mop up with plenty of water and run to waste, diluting greatly with running water. Otherwise absorb on inert absorbent, transfer to suitable container and arrange removal by disposals company.

Section 7: Handling and Storage

Precautions for safe handling:

Avoid contact with skin and eyes.
Avoid breathing vapours.
Keep away from acids.

Conditions for safe storage:

Store in a cool, well ventilated place, out of reach of children. Large quantities should be stored in a bunded, dangerous goods store. Store in original container. Keep container closed and out of direct sunlight. Keep away from acids, ammonium compounds, aluminium, tin, zinc and galvanised iron. Protect from physical damage. Clean up all spills and splashes promptly; avoid secondary accidents.

Incompatibles:

Acids, acidic salts, ammonium compounds, aluminium, tin, zinc, wood and wood products (including paper).

Section 8: Exposure Controls/Personal Protection

National Exposure Standards:

ES-TWA:	Sodium hydroxide	2 mg/m ³
	Chlorine	1 ppm, 3 mg/m ³
ES-STEL:	None assigned.	
ES-PEAK:	Sodium hydroxide	2 mg/m ³
	Chlorine	1 ppm, 3 mg/m ³

Notations: None.

[Peak] indicates a ceiling concentration which should not be exceeded, even momentarily.

Biological Limit Values: No data.

Engineering Controls:

Do not use aluminium, tin, zinc, galvanised iron or wood as materials of construction.
Ensure adequate ventilation (same as outdoors) when using.
If handling industrial quantities, or if vapour/aerosol risk exists, consider local mechanical exhaust/extraction to keep airborne contamination as low as possible, and at least below the TLV [PEAK].

Personal Protective Equipment:

Avoid contact with skin and eyes. Do not breathe vapours.
Personal protection to be selected from those recommended below, as appropriate to mode of use, quantity handled and degree of hazard:-

Normal Use:

Eye/face protection
Gloves, rubber or plastic.

Industrial Quantities:

Face shield
Gloves or gauntlets, rubber or plastic
Plastic apron, sleeves and boots
Impervious overalls.

Section 9: Physical and Chemical Properties

Appearance: Clear, colourless, mobile liquid.
Odour: Slight smell of chlorine bleach.
pH: Very alkaline (about 14).
Vapour Pressure: No data.
Vapour Density: No data.
Boiling Point: > 100 °C
Melting Point: No data.
Volatiles: About 71 % [as water]
Volatile Organic Compounds (VOC): Nil.
Evaporation Rate: No data.
Solubilities: Miscible with water in all proportions.
Specific Gravity/Density: 1.18 g/mL.
Flash Point: None.
Flammable Limits: None.
Dust Explosion: Not applicable.
Auto-ignition Temperature: No data.

Other Information:

Alkaline mixture.
Will absorb carbon dioxide from the air, forming sodium carbonate.
May lose chlorine gas slowly on storage, more quickly when contaminated. Will react vigorously or violently with acids, generating chlorine, a toxic gas. Contact with aluminium, tin, zinc or galvanised iron may generate hydrogen a flammable gas. Contact with ammonium compounds may generate ammonia, a toxic gas. Will attack wood and wood products (such as paper, cardboard, chipboard). May attack glass on long contact.

Section 10: Stability and Reactivity

Chemical Stability: Relatively stable under normal conditions.
Conditions to Avoid: Incompatible materials, heat.
Incompatible Materials: Active metals, ammonium compounds, acids, wood and paper.
Hazardous Decomposition Products: Chlorine gas.
Hazardous Reactions: Will react vigorously or violently with acids, generating chlorine gas. Contact with active metals may generate hydrogen. Contact with ammonium compounds may generate ammonia gas.

Section 11: Toxicological Information

Health Effects:

No data available for the mixture. Information presented relates to individual ingredients.

Acute:	Swallowed:	Corrosive. Will cause burns to lips, mouth, throat and stomach. Can cause holes in stomach and intestines. Other effects include nausea, vomiting, abdominal pains, diarrhoea (occasionally bloody), swelling of the larynx and subsequent suffocation. Possibility of heart failure, coma and death.
	Skin:	Corrosive, causes severe, deep burns.
	Eyes:	Corrosive, risk of serious damage to the eyes, corneal burns and possible loss of sight.
	Inhaled:	Vapours will cause irritation of the nose and throat, inflammation of the lungs. High vapour levels of chlorine can cause coughing, difficulty breathing, chest pains, swelling of the mucous membranes and cramps in the muscles of the larynx. Risk of suffocation.
Chronic:		Repeated or prolonged exposure to chlorine vapours may lead to corrosion of the teeth and chloracne. Repeated contact with sodium hydroxide can lead to skin irritation.
LD50 :	Sodium hydroxide	No data found.
	Sodium hypochlorite	8,910 mg/kg oral, rat. 5,800 mg/kg oral, mouse.
LDLo :	Sodium hydroxide	500 mg/kg oral, rabbit.
LC50 :	Chlorine	293 ppm/1 hour, rat. 137 ppm/1 hour, mouse.
LCLo :	Chlorine	500 ppm/5 minutes, human.
TDLo:	Sodium hypochlorite	1,000 mg/kg oral, woman.

Section 12: Ecological Information

Ecotoxicity:	Harmful to aquatic organisms.
Persistence and degradability:	No data.
Mobility:	Readily transported by water.
Environmental Fate:	No data.
Bioaccumulative potential:	No data.
Other adverse environmental effects:	Will release chlorine to air and to water.

Section 13: Disposal Considerations

The generator of any wastes from this product is responsible for its proper classification, transport and disposal.

Consult appropriate local and State regulations.

Disposal methods and containers:

Avoid disposal to natural waters or the environment.

Special precautions for landfill or incineration:

Unsuitable for incineration.

Section 14: Transport Information

UN Number: UN 3266

UN Proper shipping name: Corrosive liquid, basic, inorganic, n.o.s. (sodium hydroxide, sodium hypochlorite)

Class and subsidiary risk: 8 Corrosive.

Packaging group: II

Special precautions for user: Keep away from acids.
Do not transport with classes 1, 4.3, 5.1, 5.2, 7, strong concentrated acids, foodstuff or foodstuff empties.

HAZCHEM Code: 2 X

Material for export: Regulated.
Refer to **IMO/IMDG** and **IATA/ICAO**.

Section 15: Regulatory Information

Poisons (SUSDP): Schedule 6; Sodium hydroxide > 5 %.

Dangerous Goods: Yes. UN 3266 8/II 2 X.

Carcinogen: **Australia** **IARC** **NTP** **RTECS**
No. No. No. No.

Agricultural and Veterinary Chemicals Act:
This product is registered with the Australian Pesticides and Veterinary Medicines Authority (**APVMA**).

Australian Inventory of Chemical Substances (AICS): Listed.

Other National/International Regulations: No data.

Section 16: Other information

Date of MSDS update: September 2009
Emergency telephone numbers updated.

Abbreviations:

NOHSC - National Occupational Health and Safety Commission.
ACGIH - American Conference of Governmental Industrial Hygienists.
IARC - International Agency for Research on Cancer (France).
NTP - National Toxicology Program (USA).
RTECS - Registry of Toxic Effects of Chemical Substances.

Literature references:

Available Sources of Data:

National Code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition [2011(2003)] - NOHSC.
Australian Dangerous Goods Code.
Standard for the Uniform Scheduling of Drugs and Poisons - AHMAC.
Exposure Standards for Atmospheric Contaminants in the Occupational Environment [1003]- NOHSC.
List of Designated Hazardous Substances [10005] - NOHSC.
Merck Index - Merck Inc.
Sax's Dangerous Properties of Industrial Materials - Lewis.
Handbook of Toxic and Hazardous Chemicals and Carcinogens - Sittig.
Handbook of Reactive Chemical Hazards - Bretherick.
Hawley's Condensed Chemical Dictionary - Wiley Interscience.
AUSREG's Chemical Data Package for PCs - AUSREG Consultancy.