



15240 CAUSTIC SODA 5kg

Chemwatch Material Safety Data Sheet
Issue Date: 31-May-2010
XC477SP

Hazard Alert Code: **EXTREME**

CHEMWATCH 5016-30
Version No:4.1.1.1
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Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

15240 CAUSTIC SODA 5kg

STATEMENT OF HAZARDOUS NATURE

Considered a Hazardous Substance according to the criteria of the New Zealand Hazardous Substances New Organisms legislation. Classified as Dangerous Good for transport purposes.

OTHER NAMES

"soda lye", "sodium hydrate", "caustic soda powdered", "caustic soda pellets", "caustic soda flake", "caustic soda petal", "white caustic", "caustic soda sticks", "sodium hydroxide flake", NaOH, "caustic soda, anhydrous"

PROPER SHIPPING NAME

SODIUM HYDROXIDE, SOLID

PRODUCT NUMBERS

AKG2005

PRODUCT USE

• Material is mixed and used in accordance with manufacturers directions.

WARNING: To avoid violent reaction, ALWAYS add material to water and NEVER water to material.

General chemical with many uses.

SUPPLIER

Company: Damar Industries Ltd

Address:

Eastgate Business Park, 800 Te Ngae Road

Rotorua

New Zealand

Telephone: +64 7 345 6007

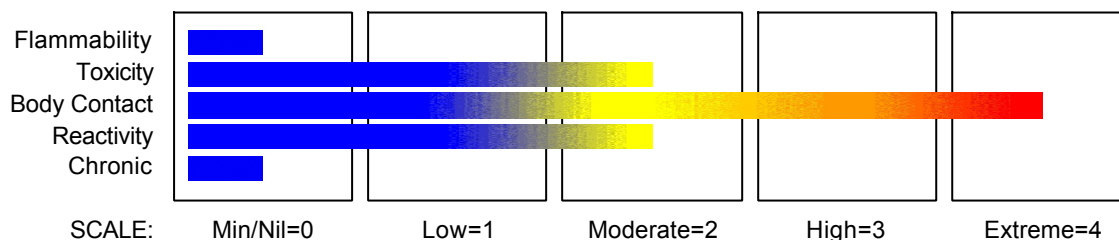
Emergency Tel: **+64 7 345 6007**

Fax: +64 7 345 6019

Email: sales@damarindustries.co.nz

Section 2 - HAZARDS IDENTIFICATION

CHEMWATCH HAZARD RATINGS



GHS Classification

Metal Corrosion Category 1

Serious Eye Damage Category 1

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Section 2 - HAZARDS IDENTIFICATION

Skin Corrosion/Irritation Category 1B



EMERGENCY OVERVIEW

HAZARD
DANGER

Determined by Chemwatch using GHS/HSNO criteria
8.1A, 8.2B, 8.3A.

HAZARD STATEMENTS

H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.

PRECAUTIONARY STATEMENTS

Prevention

Code	Phrase
P234	Keep only in original container.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash ... thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

Response

Code	Phrase
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
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. Immediately call a POISON CENTER or doctor/physician.
P310	Wash contaminated clothing before reuse.
P363	Absorb spillage to prevent material damage.
P390	

Storage

Code	Phrase
P405	Store locked up.
P406	Store in corrosive resistant container or with a resistant inner liner.

Disposal

Code	Phrase
P501	Dispose of contents/container to ...

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
sodium hydroxide	1310-73-2	>99

Section 4 - FIRST AID MEASURES

NEW ZEALAND POISONS INFORMATION CENTRE 0800 POISON (0800 764 766)
NZ EMERGENCY SERVICES: 111

SWALLOWED

- DO NOT delay.
- If poisoning occurs, contact a doctor or Poisons Information Centre.
- If swallowed do NOT induce vomiting.
- If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and

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Section 4 - FIRST AID MEASURES

prevent aspiration.

- Observe the patient carefully.
- Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.

EYE

■ DO NOT delay If this product comes in contact with the eyes:

- Immediately hold eyelids apart and flush the eye continuously with running water.
- Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
- Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.
- Transport to hospital or doctor without delay.

SKIN

■ If skin or hair contact occurs:

- Quickly but gently, wipe material off skin with a dry, clean cloth.
- Immediately remove all contaminated clothing, including footwear.
- Wash skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre.
- Transport to hospital, or doctor.

or In case of burns:

- Quickly immerse affected area in cold running water for 10 to 15 minutes.
- Bandage lightly with a sterile dressing. Treat for shock if required.
- Lay patient down. Keep warm and rested.
- Transport to hospital, or doctor.

INHALED

- If dust is inhaled, remove from contaminated area.
- Encourage patient to blow nose to ensure clear breathing passages.
- Ask patient to rinse mouth with water but to not drink water.
- Seek immediate medical attention.

NOTES TO PHYSICIAN

For acute or short-term repeated exposures to highly alkaline materials:

- Respiratory stress is uncommon but present occasionally because of soft tissue edema.
- Unless endotracheal intubation can be accomplished under direct vision, cricothyroidotomy or tracheotomy may be necessary.
- Oxygen is given as indicated.
- The presence of shock suggests perforation and mandates an intravenous line and fluid administration.

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

- There is no restriction on the type of extinguisher which may be used.
- Use extinguishing media suitable for surrounding area.

FIRE FIGHTING

- Alert Fire Brigade and tell them location and nature of hazard.
- Wear full body protective clothing with breathing apparatus.
- Prevent, by any means available, spillage from entering drains or water courses.

Use fire fighting procedures suitable for surrounding area.

DO NOT approach containers suspected to be hot.

Cool fire exposed containers with water spray from a protected location.

If safe to do so, remove containers from path of fire.

Avoid spraying water onto liquid pools.

Equipment should be thoroughly decontaminated after use.

FIRE/EXPLOSION HAZARD

- Non combustible.
- Not considered a significant fire risk, however containers may burn.

FIRE INCOMPATIBILITY

- Avoid reaction with strong oxidisers, strong acids, organic materials / compounds.
- In presence of moisture, the material is corrosive to aluminium, zinc and tin producing highly flammable hydrogen gas.

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Section 6 - ACCIDENTAL RELEASE MEASURES

MINOR SPILLS

- DO NOT touch the spill material Slippery when spilt.
Clean up all spills immediately.
Control personal contact with the substance, by using protective equipment.
Use dry clean up procedures and avoid generating dust.
Place in suitable containers for disposal.

MAJOR SPILLS

- DO NOT touch the spill material Slippery when spilt.
Keep dry. Reacts violently with water.
Clear area of personnel and move upwind.
Alert Fire Brigade and tell them location and nature of hazard.
- Wear full body protective clothing with breathing apparatus.
- Prevent, by any means available, spillage from entering drains or water courses.
Shut off all possible sources of ignition and increase ventilation.
Stop leak if safe to do so.
Use dry clean up procedures and avoid generating dust.
Collect recoverable product into labelled containers for recycling.
Collect residues and seal in labelled drums for disposal.
Wash area down with large quantity of water and prevent runoff into drains.
If contamination of drains or waterways occurs, advise emergency services.
- After clean up operations, decontaminate and launder all protective clothing and equipment before storing and re-using.

Personal Protective Equipment advice is contained in Section 8 of the MSDS.

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING

- Avoid generating and breathing dust Avoid contact with skin and eyes.
Wear protective clothing when risk of exposure occurs.
Use in a well-ventilated area.
Local exhaust ventilation may be required for safe working, i.e. to keep exposures below required standards, otherwise PPE is required.
- Handle and open container with care Keep dry. Reacts violently with water.
- WARNING: Contact with water generates heat.
WARNING: To avoid violent reaction, ALWAYS add material to water and NEVER water to material.
Avoid contact with incompatible materials.
Avoid physical damage to containers.
Keep containers securely sealed when not in use.
Always wash hands with soap and water after handling. Work clothes should be laundered separately.
Launder contaminated clothing before re-use.
Use good occupational work practice. Observe manufacturer's storage and handling recommendations contained within this MSDS.
- Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.

SUITABLE CONTAINER

- Plastic bag
- NOTE: Bags should be stacked, blocked, interlocked, and limited in height so that they are stable and secure against sliding or collapse or • Packaging as recommended by manufacturer.
- Glass container is suitable for laboratory quantities.
Polyethylene or polypropylene container or Polylined drum.
- DO NOT use aluminium, galvanised or tin-plated containers.
- Check that containers are clearly labelled.

STORAGE INCOMPATIBILITY

Keep dry. Reacts violently with water.
Segregate from water, strong oxidisers, strong acids, organic materials, nitro compounds and trichlorethylene.

STORAGE REQUIREMENTS

- Keep dry. Reacts violently with water.
- Store in original containers.

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Section 7 - HANDLING AND STORAGE

- Keep containers securely sealed.
- Store in a cool, dry, well-ventilated area.
- Store away from incompatible materials and foodstuff containers.
- DO NOT use aluminium, galvanised or tin-plated containers.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

Source	Material	TWA ppm	TWA mg/m ³	STEL ppm	STEL mg/m ³	Peak ppm	Peak mg/m ³	TWA F/CC	Notes
New Zealand Workplace Exposure Standards (WES)	(Sodium hydroxide)						2		

MATERIAL DATA

15240 CAUSTIC SODA 5KG:

None assigned. Refer to individual constituents.

REL Ceiling: 2mg/m³

[ORICA]

SODIUM HYDROXIDE:

for sodium hydroxide:

The TLV-C is recommended based on concentrations that produce noticeable but not excessive, ocular and upper respiratory tract irritation.

PERSONAL PROTECTION



RESPIRATOR

•Particulate. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

EYE

- Safety glasses with side shields.
- Chemical goggles.
- Full face shield may be required for supplementary but never for primary protection of eyes
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59]. [AS/NZS 1336 or national equivalent].

HANDS/FEET

- DO NOT handle directly. Wear gloves and use scoop / tongs / tools.
- Elbow length PVC gloves or • Butyl rubber gloves • Neoprene rubber gloves.
- Safety footwear.

OTHER

- Overalls.
- PVC Apron.
- PVC protective suit may be required if exposure severe.
- Eyewash unit.

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Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS

- Use in a well-ventilated area.
 - DO NOT handle directly. Wear gloves and use scoop / tongs / tools.
- If risk of overexposure exists, wear SAA approved respirator.

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

White, deliquescent, odourless, solid beads ("pearls").
Vigorously exotherms when mixed with water. Explosive boiling and spitting will occur if added to hot water. Reacts violently with acids.
CAUSTIC alkali. Soluble in water, alcohol, ether, glycerol.
In the presence of moisture, highly corrosive to aluminium, zinc and tin.
HIGHLY reactive: with ammonium salts evolves ammonia gas. Rapidly picks up moisture from the air and with carbon dioxide in air forms sodium carbonate.

PHYSICAL PROPERTIES

Solid.
Mixes with water.
Corrosive.
Alkaline.
Reacts violently with water.

State	Divided solid	Molecular Weight	40 if pure
Melting Range (°C)	310	Viscosity	Not available
Boiling Range (°C)	1390	Solubility in water (g/L)	Soluble.
Flash Point (°C)	Not applicable	pH (1% solution)	12.7
Decomposition Temp (°C)	Not available	pH (as supplied)	Not applicable
Autoignition Temp (°C)	Not applicable	Vapour Pressure (kPa)	0.13 @739C
Upper Explosive Limit (%)	Not applicable	Specific Gravity (water=1)	2.13 @ 20 C
Lower Explosive Limit (%)	Not applicable	Relative Vapour Density (air=1)	Not available.
Volatile Component (%vol)	Not available.	Evaporation Rate	Not available

Section 10 - CHEMICAL STABILITY

CONDITIONS CONTRIBUTING TO INSTABILITY

- Presence of incompatible materials and Storage in unsealed containers.
- Product is considered stable under normal handling conditions.
Hazardous polymerisation will not occur.
For incompatible materials - refer to Section 7 - Handling and Storage.

Section 11 - TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED

- Considered an unlikely route of entry in commercial/industrial environments.

EYE

- The material may produce moderate eye irritation leading to inflammation.
- Repeated or prolonged exposure to irritants may produce conjunctivitis.

SKIN

- Bare unprotected skin should not be exposed to this material.
- The material may cause skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin.

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Section 11 - TOXICOLOGICAL INFORMATION

INHALED

■ The material may produce respiratory tract irritation, and result in damage to the lung including reduced lung function.

CHRONIC HEALTH EFFECTS

The material is considered to be harmful by all exposure routes.

Principal routes of exposure are usually by skin contact with the material, eye contact and inhalation of generated dust.

As with any chemical product, contact with unprotected bare skin; inhalation of vapour, mist or dust in work place atmosphere; or ingestion in any form, should be avoided by observing good occupational work practice.

TOXICITY AND IRRITATION

No data for this material.

Section 12 - ECOLOGICAL INFORMATION

This material and its container must be disposed of as hazardous waste.

Ecotoxicity

Ingredient	Persistence: Water/Soil	Persistence: Air	Bioaccumulation	Mobility
sodium hydroxide	LOW	No Data Available	LOW	HIGH

Section 13 - DISPOSAL CONSIDERATIONS

- Recycle wherever possible or consult manufacturer for recycling options.
- Consult State Land Waste Management Authority for disposal.
- Treat and neutralise with dilute acid at an effluent treatment plant.
- Recycle containers, otherwise dispose of in an authorised landfill.

Insure that the disposal of material is carried out in accordance with Hazardous Substances (Disposal) Regulations 2001.

Section 14 - TRANSPORTATION INFORMATION



Labels Required: CORROSIVE

HAZCHEM:

2W

Land Transport UNDG:

Class or division:	8	Subsidiary risk:	None
UN No.:	1823	UN packing group:	II
Shipping Name: SODIUM HYDROXIDE, SOLID			

Air Transport IATA:

ICAO/IATA Class:	8	ICAO/IATA Subrisk:	None
UN/ID Number:	1823	Packing Group:	II
Special provisions:	None		
Cargo Only			
Packing Instructions:	863	Maximum Qty/Pack:	50 kg
Passenger and Cargo			
Packing Instructions:	859	Maximum Qty/Pack:	15 kg

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Section 14 - TRANSPORTATION INFORMATION

Passenger and Cargo Limited Quantity Packing Instructions: Y844 Passenger and Cargo Limited Quantity Maximum Qty/Pack: 5 kg

Shipping name: SODIUM HYDROXIDE, SOLID

Maritime Transport IMDG:

IMDG Class: 8 IMDG Subrisk: None
UN Number: 1823 Packing Group: II
EMS Number: F-A,S-B Special provisions: None
Limited Quantities: 1 kg
Shipping name: SODIUM HYDROXIDE, SOLID

Section 15 - REGULATORY INFORMATION

EPA Approval number

This substance is to be managed in accordance with the classification and controls specified in the Hazardous Substances Transfer Notice, 2004, (see table below). This substance may alternatively be managed under the conditions imposed by an applicable Group Standard.

HSR No.	HSR Name
HSR002491	Additives, Process Chemicals and Raw Materials (Corrosive) Group Standard 2006
HSR002514	Aerosols (Corrosive) Group Standard 2006
HSR002630	Organic Peroxides, Corrosive Group Standard 2006
HSR002526	Cleaning Products (Corrosive) Group Standard 2006
HSR002547	Corrosion Inhibitors (Corrosive) Group Standard 2006
HSR002555	Dental Products (Corrosive) Group Standard 2006
HSR002569	Fertilisers (Corrosive) Group Standard 2006
HSR002582	Fuel Additives (Corrosive) Group Standard 2006
HSR002618	N.O.S. (Corrosive) Group Standard 2006
HSR002636	Photographic Chemicals (Corrosive) Group Standard 2006
HSR100425	Pharmaceutical Active Ingredients Group Standard 2010
HSR002609	Metal Industry Products (Corrosive) Group Standard 2006

REGULATIONS

Regulations for ingredients

MWR0075 SODIUM HYDROXIDE 50% (CAS: 1310-73-2, 12200-64-5) is found on the following regulatory lists;

"CODEX General Standard for Food Additives (GSFA) - Additives Permitted for Use in Food in General, Unless Otherwise Specified, in Accordance with GMP", "GESAMP/EHS Composite List - GESAMP Hazard Profiles", "IMO IBC Code Chapter 17: Summary of minimum requirements", "International Council of Chemical Associations (ICCA) - High Production Volume List", "International Fragrance Association (IFRA) Survey: Transparency List", "New Zealand Cosmetic Products Group Standard - Schedule 5: Components Cosmetic Products May Contain With Restrictions", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Scheduled Toxic Substances", "New Zealand Inventory of Chemicals (NZIoC)", "New Zealand Workplace Exposure Standards (WES)", "OECD List of High Production Volume (HPV) Chemicals", "United Nations Consolidated List of Products Whose Consumption and/or Sale Have Been Banned, Withdrawn, Severely Restricted or Not Approved by Governments"

No data for 15240 CAUSTIC SODA 5kg (CW: 5016-30)

Specific advice on controls required for materials used in New Zealand can be found at www.epa.govt.nz/search-databases/Pages/controls-search.aspx

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Section 16 - OTHER INFORMATION

NEW ZEALAND POISONS INFORMATION CENTRE
0800 POISON (0800 764 766)
NZ EMERGENCY SERVICES: 111

INGREDIENTS WITH MULTIPLE CAS NUMBERS

Ingredient Name	CAS
sodium hydroxide	1310-73-2, 12200-64-5

■ Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

A list of reference resources used to assist the committee may be found at:
www.chemwatch.net/references.

■ The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings.

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