

MATERIAL SAFETY DATA SHEET

Section 1 IDENTIFICATION OF THE MATERIAL AND SUPPLIER

COMPANY	Delshine Chemicals
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BRAND NAME – CAUSTIC SODA
TRADE NAME – CAUSTIC SODA
SHIPPING NAME (section 14) SODIUM HYDROXIDE SOLID
USE – METAL CLEANING

RESTRICTIONS – KEEP AWAY FROM ACIDS , OXIDISING AGENTS AND METALS

Section 2 HAZARDS CLASSIFICATION / IDENTIFICATION

CLASSIFIED AS : HAZARDOUS ACCORDING TO CRITERIA OF NOHSC AND CLASSIFIED AS A DANGEROUS GOOD ACCORDING TO THE ADG CODE

UN NUMBER : 1823

Emergency Overview – Corrosive . Strongly alkaline. Causes burns. Irritating to respiratory system. Irritating to eyes and skin.

Health Effects – Acute

Swallowed – Corrosive. May cause severe gastrointestinal tract irritation with nausea , vomiting and possible burns. May be harmful if swallowed.

Eyes – Contact with eyes will cause severe irritation , and eye burns.

Skin – Contact with skin causes irritations , and burns especially if skin is wet or moist.

Inhaled – May cause irritation of the respiratory tract with burning pain in the nose and throat , coughing , wheezing , shortness of breath and pulmonary oedema.

Health Effects – Chronic

Chronic inhalation and ingestion may cause effects similar to those of acute inhalation and ingestion.

CONTINUE SECTION 2 HAZARDS CLASSIFICATION / IDENTIFICATION

RISK PHASES –
R35 – Causes severe burns
R37 – Irritating to respiratory system
R41 – Risk of serious eye damage

SAFETY PHASES –
S 1 / 2 – Keep locked up and out of reach of children
S 13 – Keep away from food , drink and animal foodstuffs
S22 – Do not breathe dust
S24 / 25 – Avoid contact with skin and eyes
S26 – In case of contact with eyes rinse immediately with plenty of water and contact a doctor or poisons information centre.
S36/37/39 Wear suitable protective clothing , gloves and eye/face protection
S45 – In case of accident or if you feel unwell, seek medical advice immediately (show label whenever possible)

Section 3 COMPOSITION / INFORMATION OF INGREDIENTS

Chemical Entity:	CAS No:	Proportion (% mass)
Sodium Hydroxide	1310-73-2	98

Section 4 FIRST AID MEASURES

Swallowed – DO NOT induce vomiting, give large amounts of water or milk. Never give anything by mouth to an unconscious person. Seek medical attention immediately.

Eyes – Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. Seek medical attention immediately.

Skin – Flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Seek medical attention immediately.

Inhaled – Remove from exposure to fresh air immediately. If not breathing give artificial respiration. If breathing is difficult give oxygen. Seek medical attention.

Advice to doctor – Medical conditions aggravated by exposure – asthma , skin & lung diseases. Treat symptomatically based on judgement of doctor and individual reactions of patient

First Aid Facilities: **Ensure an eye bath and safety shower are available and ready for use.**

Section 5

FIRE FIGHTING MEASURES

Extinguishing Media – Product is a non flammable solid.

In case of fire use appropriate media most suitable for surrounding fire conditions.

Hazard from Combustion Products – Very hygroscopic. Incompatible with oxidizing agents , acids , bases , water , organic halogen compounds, nitromethane , magnesium , tin , zinc , aluminium and sources of ignition. Can slowly pick up moisture from the air and react with carbon dioxide from air to form sodium carbonate. Reacts with certain acids and organic releasing flammable and explosive hydrogen gas. Contact with acids and organic halogen compounds (trichloroethylene may cause violent reactions) Contact with nitromethane causes formation of shock – sensitive salts. Reacts readily with various sugars to produce carbon monoxide.

Special protective precautions and equipment for fire fighters – Fire fighters should wear a self contained breathing apparatus and full protective clothing along with protective equipment.

HAZCHEM CODE : 2 X

Section 6

ACCIDENTAL RELEASE MEASURES

Emergency Procedures – Personnel involved in the clean up should wear full protective clothing. Evacuate all unnecessary personnel. Eliminate all sources of ignition. Increase ventilation. Avoid generating dust. Stop leak if safe to do so. Isolate the danger area. DO NOT let product reach drains or waterways. If product does enter waterways advise the Environmental Protection Authority or your local Waste Management. Use corrosion resistant and spark proof tools and equipment.

Method and material for containment and clean up – Contain and sweep / shovel up spills with dust binding materials or use an industrial vacuum cleaner. Transfer to a dry, suitable labeled container and hold for safe disposal.

Section 7

HANDLING AND STORAGE

Precautions for safe handling – Ensure an eye bath and safety shower are available and ready for use. Observe good personal hygiene practices and recommended procedures. Wash thoroughly after handling. Take precautionary measures against static discharge by bonding and grounding equipment. Conditions for safe storage , including any incompatibles – Store in a cool dry well ventilated area. Keep containers tightly closed when not in use. Inspect regularly for deficiencies such as damage or leaks. Protect against physical damage. Store away from incompatible materials including oxidizing agents , acids , water , bases , organic halogen compounds , nitromethane , magnesium , tin , zinc , aluminium and sources of ignition . Protect from direct sunlight, moisture and static discharge. Hygroscopic. Store at ambient temperature. This product has UN classification of 1823 and a Dangerous Goods class 8 (corrosive) according to the Australia Code for the Transport of Dangerous Goods by Road and Rail.

Container Type – Packaging must comply with regulations of Hazardous Substances (Packaging Regulations) 2001. Store in original packaging as approved by manufacturer.

Suitable – Mild steel drums , polyethylene bags.

Unsuitable – Aluminium , tin , zinc , and alloys (brasses) chrome.

Section 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

National Exposure Standards- Work safe recommends – TWA 2mg/m³ peak limitation.

Biological Limits Values – No information available on biological limits for this product.

Engineering Controls – A system of local and or general exhaust is recommended to keep employee exposure as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its sources , preventing dispersion of it into the general work area.

Personal Protection –

Respirators – Wear an NIOSH approved respirator where ventilation is inadequate .

Eyes – Safety glasses with side shields (EN166) or face shield as needed.

Hands – Chemical resistant gloves (EN 374)

Clothing – Corrosive resistant coveralls , apron and safety footwear.

Section 9 PHYSICAL & CHEMICAL PROPERTIES

APPEARANCE White Granules

ODOUR slight

PH 13-14 approx (0.5% solution)

VAPOUR PRESSURE not available

BOILING POINT °C 1390

VAPOUR DENSITY not available

FREEZING POINT °C 318

SOLUBILITY 111g/100gH₂O

SPECIFIC GRAVITY 2.13

MELTING POINT 318 °C

ADDITIONAL INFORMATION – Reacts with metals to generate flammable hydrogen gas.

Section 10 STABILITY & REACTIVITY

Stable under normal conditions . Reactive to acids. Attacks aluminium and zinc.

Incompatible Materials

Incompatible with oxidizing agents , acids , bases , water , organic halogen compounds, nitromethane magnesium , tin , zinc , aluminium and sources of ignition.

Hazardous Decomposition Product

Product may emit sodium oxide , carbon monoxide and flammable hydrogen gas.

Hazardous Reactions

Contact with polymerization will not occur.

Contact with acids and organic halogen compounds (trichloroethylene) may cause a violent reaction.

Contact with nitromethane and other nitro compounds causes formation of shock – sensitive salts.

Contact with metals such as aluminium , magnesium , tin , zinc , generate flammable hydrogen gas.

Product reacts readily with various sugars to produce carbon monoxide.

Section 11 TOXICOLOGICAL INFORMATION

Toxicity Date –

Eye – Irritation Rabbit 24hr : 50ug – Skin Irritation Rabbit 24hr : 500mg Investigated as a mutagen.

Ingestion – Corrosive . Swallowing may cause severe burns of mouth , throat and stomach. Severe scarring of tissue and death may result. Symptoms may include bleeding , vomiting , diarrhoea, fall in blood pressure. Damage may appear days after exposure.

Eye – Corrosive . Causes irritation of eyes and with greater exposure it can cause burns that may result in permanent impairment of vision , even blindness.

Skin – Corrosive . Contact with skin can cause irritation or severe burns and scarring with greater exposure.

Inhaled – Severe irritant. Effects from inhalation of dust or mist vary from mild irritation to serious damage of the upper respiratory tract, depending on severity of exposure. Symptoms may include sneezing , sore throat or runny nose. Severe pneumonitis may occur.

Section 12 ECOLOGICAL INFORMATION

No ecological information available for this product.

Section 13 DISPOSAL CONSIDERATIONS

Disposal – Dispose of in accordance with local state and federal regulations at an approved waste disposal facility. Product can be neutralized with diluted acid and solids landfilled according to relevant regulations.

Section 14 TRANSPORT INFORMATION

UN NUMBER : 1823

UN PROPER SHIPPING NAME : Sodium Hydroxide Solid

CLASS: 8

PACKING GROUP: 11

HAZCHEM CODE: 2X

Section 15 REGULATORY INFORMATION

Poisons Schedule 6

EPG 37

NZ Toxic Substance 3

Section 16	OTHER INFORMATION
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DATE OF LAST REVISION OF MATERIAL SAFETY DATA SHEET :

20th August 2010

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AUTHORISATION FOR ISSUE _____ DATE ____/____/_____
Les Buss

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