



SAFETY DATA SHEET

PRODUCT NAME: Soda Ash (Dense)

Issue Date: May 23

IDENTIFICATION

Product Name: Soda Ash Dense (anhydrous)
Other Names: Sodium Carbonate, Carbonic Acid, Disodium Carbonate, washing soda
Product Code: CSA25
Uses: Glass manufacture, chemicals, pulp and paper manufacture, sodium compounds, soaps and detergents, water treatment, aluminium production, textile processing, (eg. bleaching of linen, hemp, cotton), cleaning preparations, petroleum refining, sealing ponds from leakage (sodium ions bind to clay particles, which swell to seal leaks), catalyst in coal liquefaction, photographic agent, food additive.
Supplier: HamChem Hamilton Chemicals Ltd, 75 Ruffell Rd, Hamilton
Phone: 07 974 4971 Web: www.hamchem.co.nz Email: info@hamchem.nz

- In emergency dial 111, and then ask for Fire, Ambulance or Police as necessary.
- In case of poisoning phone National Poisons Centre – 0800 764 766

HAZARD IDENTIFICATION



GHS Classifications

Acute Toxicity (Inhalation) – Category 4
Skin Irritation – Category 2
Eye Irritation – Category 2

Signal Word: Warning

Hazard Statements:

H332 – Harmful if inhaled
H315 – Causes skin irritation
H319 – Causes serious eye irritation

Prevention

P261 – Avoid breathing dust/fume/gas/mist/vapours/spray
P271 – Use only outdoors or in a well-ventilated area
P264 – Wash thoroughly after handling
P280 - Wear protective gloves/clothing and eye/face protection

Response

P304+P340 – IF INHALED: Remove person to fresh air and keep comfortable for breathing
P312 – Call a POISON CENTRE/Doctor if you feel unwell
P302+P352 – IF ON SKIN (or hair): Wash with plenty of water.
P332+P313 – If skin irritation occurs: Get medical advice/attention
P362+P364 – Take off contaminated clothing and wash it before reuse
P305+P351+P318 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313 - If eye irritation persists: Get medical advice/attention.

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COMPOSITION & INFORMATION ON INGREDIENTS

Chemical Entity	CAS No.	Proportion (%)
Sodium Carbonate	497-19-8	> 90%

FIRST AID MEASURES

Primary routes of exposure include inhalation and skin and eye contact.

Swallowed: Keep the person calm. Do NOT make them vomit. Immediately give them a small amount of water or milk to drink: 1/4 to 1/2 cup for a child or 1 to 2 cups for an adult. Never give fluids to a person who is unconscious or in danger of becoming unconscious. Seek medical advice, if symptoms persist.

Eyes: Flush the eye with running water for at least 30 minutes. If you have difficulty flushing the eye(s), go to a Medical Centre or Hospital immediately for help in flushing. If symptoms persist, seek medical attention.

Skin: Remove any source of further contamination (such as contaminated clothing). Flush the affected area with water as soon as possible. Do NOT scrub the skin roughly. Do NOT use any solvent (e.g. soap, acetone, turpentine). If symptoms persist, seek medical attention.

If the Skin Looks Burned: Treat the skin the same as a thermal (heat) burn: Clean the skin gently with cool water. Apply ice or a cold compress. Do NOT apply ice to hands or feet as this may cut off circulation. If the skin is very painful, infected, or a large area is affected, take the person to a Medical Centre or Hospital.

Inhaled: Protect yourself first. Keep the person calm. Remove them to fresh air and rest. Do NOT give them anything to drink. If symptoms persist, seek medical attention.

If the Person is Having Difficulty Breathing: Keep the person calm. Help the person into a position so that breathing is as easy as possible. Quickly ring the emergency services telephone number to call an ambulance.

Notes to Physician: Treat symptomatically based on individual reactions of patient and judgement of doctor. NOTE: In an emergency dial 111, for advice, contact a Poison Centre (0800-764-766).

FIRE FIGHTING MEASURES

Extinguishing Media: In case of fire, appropriate extinguishing media include: Small fire- use dry chemical, carbon dioxide, water spray or foam. Large fire- use water spray, fog or foam.

Fire Fighting: Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves for fire only. Prevent 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. Equipment should be thoroughly decontaminated after use.

Fire/Explosion Hazard: Non-combustible solid. For incompatible substances, refer to Chemical Stability/Reactivity.

Hazards from Combustion Products: Hazardous decomposition products include carbon dioxide, carbon monoxide, sodium oxide and sodium.

Fire Incompatibility: Product is a non-flammable solid. Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result.

Personal Protective Equipment: Fire fighters should wear a self-contained breathing apparatus and full protective clothing along with protective equipment.

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ACCIDENTAL RELEASE MEASURES

Minor Spills: Remove all ignition sources. Clean up all spills immediately. Avoid breathing dust. Avoid contact with skin and eyes. Control personal contact by using protective equipment. Sweep up and shovel into a suitable labelled container for waste disposal. Avoid generating dust.

Major Spills: Control personal contact by wearing protective personal equipment. Prevent spillage from entering drains or water courses. If product does enter a waterway advise emergency services or your local waste authority. Recover product wherever possible. IF DRY: Use dry clean up procedures and avoid generating dust. Collect residues and place in sealed plastic bags or other containers for recycling or disposal. IF WET: Vacuum/shovel up and place in labelled containers for disposal. ALWAYS: Wash area down with large amounts of water and prevent runoff into drains.

HANDLING & STORAGE

Procedure for Handling: Operators should be trained in procedures for safe use of this material. Use good occupational work practice. Avoid generating and breathing dust. Avoid contact with skin and eyes. Avoid contact with incompatible materials. Handle and open container with care. Use in a well-ventilated area. Always wash hands with soap and water after handling or if accidental exposure occurs. Work clothes should be laundered separately. Ensure an eye bath and safety shower are available and ready for use. Observe good personal hygiene practices. Keep containers tightly sealed when not in use. Inspect regularly for deficiencies such as damage or leaks. Protect from physical damage.

Suitable Packaging: Packaging as specified by the manufacturer.

Storage Incompatibility: Avoid excessive heat, direct sunlight, moisture and high temperatures. Store away from oxidizing agents.

Storage Requirements: Store in cool, dry, well ventilated conditions out of direct sunlight. Observe manufacturer's storing and handling recommendations. Ensure containers are tightly closed and in a well ventilated area.

EXPOSURE CONTROLS & PERSONAL PROTECTION

Exposure Controls:

New Zealand WES 2022 – inspirable dust – TWA: 10mg/m³

New Zealand WES 2022 – respirable dust – TWA: 3mg/m³

*No exposure limits set for CAS 497-19-8 by WorkSafe New Zealand or Safe Work Australia.

Material data: OEL STEL (Russia) 5 mg/m³

PERSONAL PROTECTION

Ventilation System: A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Refer to 'A simple guide to local exhaust ventilation' found on the WorkSafe New Zealand website.

Personal Respirators: For conditions of use where exposure to dust or mist is apparent and engineering controls are not feasible, a particulate respirator (P2, NIOSH type N95 or better filters) may be worn. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

Skin Protection: Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. Refer to AS/NZS 2161.1:2000 Occupational Protective Gloves – Selection, use and maintenance; AS/NZS 2210.1:2010 for Safety footwear; AS/NZS 4501.1:2008 Occupational protective clothing – Guidelines on the selection, use, care and maintenance of protective clothing.

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Eye Protection: Use chemical safety glasses with side shield or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area. Refer to Personal eye protection Part 1: Eye and face protectors for occupational applications, Australian/New Zealand Standard: AS/NZS 1337.1:2010.

PHYSICAL & CHEMICAL PROPERTIES

Appearance:	White hygroscopic powder / granular mildly alkaline solid.
Solubility in water:	Miscible in water. Soluble in glycerol and insoluble in alcohol.
State:	Divided solid
Molecular Weight:	105.99
Melting Range (°C):	851
Boiling Range (°C):	400 (decomposes)
Solubility in water (g/L, 20°C):	30
pH (1% solution):	11.3
Specific Gravity (water = 1) 20°C:	2.53
Bulk Density (g/cm³):	0.8-0.96
Volatile Component (%vol):	Not applicable
Relative Vapour Density (air = 1):	Not applicable
Flash Point (°C):	Not applicable
Upper Explosive Limit (%):	Not applicable
Lower Explosive Limit (%):	Not applicable
Auto-ignition Temperature (°C):	Not applicable
Evaporation Rate:	Not applicable
Decomposition Temperature (°C):	>400
Viscosity:	Not available

STABILITY & REACTIVITY

Chemical Stability: Product is stable under normal conditions of use, storage and temperature.

Conditions to avoid: Avoid excessive heat, direct sunlight, static discharges, moisture, and temperature extremes.

Incompatible Materials: The solution is a strong base. Incompatible with oxidizing agents, sulphuric acid, ammoniacal silver nitrate, molten lithium, alkaline metals, organic nitro compounds, water and sources of ignition. Reacts violently with acids, generating heat. Reacts with magnesium, phosphorous pentoxide causing explosion hazard. Reacts with fluorine causing fire hazard. Incompatible with strong oxidizing agents and sources of ignition. Reacts with hydrated lime in the presence of moisture to form caustic soda which is a corrosive. May cause explosive reaction with aluminium, if aluminium is red hot. Keep containers dry and tightly closed to avoid moisture absorption and contamination.

Hazardous Decomposition Products: Hazardous decomposition products include carbon dioxide, carbon monoxide, sodium oxide and sodium.

Hazardous Reactions: Hazardous polymerization will not occur.

TOXICOLOGICAL INFORMATION

Potential Acute Health Effects: Harmful if inhaled and may be harmful if swallowed. Causes skin and eye irritation.

ACUTE HEALTH EFFECTS

Swallowed: May be harmful if swallowed. May cause irritation of the mouth, throat and stomach. Concentrated solutions may be corrosive, resulting in cramps, vomiting, diarrhoea and possibly circulatory collapse and death.

Eye: Dust or concentrated solutions may irritate or burn the eyes. Prolonged contact may cause permanent damage.

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Skin: Dust and weak solutions may be irritating to skin of sensitive individuals causing redness and blistering. Concentrated solutions may be corrosive, causing severe irritation and burning. Repeated/prolonged skin contact may cause dermatitis and ulceration of the skin.

Inhaled: Inhalation of dusts, generated by the material, during the course of normal handling, may be harmful. The material may cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage.

Chronic Health Effects: Long term exposure to high dust concentrations may cause changes in lung function.

TOXICITY AND IRRITATION DATA

Toxicity: Acute Oral Toxicity, Rat, LD50: 4090 mg/kg [NZ EPA CCID]
Acute Dermal Toxicity, LD50: >2000 mg/kg
Acute Inhalation Toxicity, Rat, LC50: 2.3 mg/l (2hr) [NZ EPA CCID]

Irritation/Corrosion: Skin, Rabbit: Moderately irritating. [NZ EPA CCID]
Eyes, Rabbit: Highly irritating. [NZ EPA CCID]

Carcinogenic effects: Not classified or listed by IARC, Ca Prop65, NTP, or NIOSH.

Mutagenic effects: Not available.

Reproductive or developmental effects: No risk for developmental or reproductive toxicity.

Aspiration hazard: Not available.

Specific target organ toxicity: Not available.

Sensitisation (respiratory/contact): Not available.

ECOLOGICAL INFORMATION

Ecotoxicity: Not ecotoxic for the aquatic environment. Sodium carbonate may cause a local increase in pH if released into the environment, depending on the buffering capacity of the natural environment.

Ecotoxicity Data: Fish, (*Lepomis macrochirus*), 96h LC50: 300 mg/L
Crustacean, (*Daphnia magna*), 48h EC50: 265 mg/L
Algae (*Nitzscheria linearis*), 5day EC50: 242 mg/L

Chronic: No chronic ecotoxicity assigned.

Persistence and Degradability: Aerobic/Anaerobic degradation: Not applicable (inorganic compound).

Mobility: Soluble in water.

Bioaccumulation: Not applicable.

BOD and COD: Not applicable.

Products of Biodegradation: Not applicable. DO NOT discharge into sewer or waterways.

DISPOSAL CONSIDERATIONS

Product: Recycle wherever possible. Special hazard may exist - specialist advice may be required. The product may be treated so that it is no longer hazardous by a means other than dilution. This includes incineration at an approved site or burial in a landfill in such a manner that it will not lead to any adverse health effects to any person or exceed any TEL (tolerable exposure limit) set by the Authority for this substance. Treatment in a biological wastewater treatment system with prior approval and arrangement is also permissible providing that the substance is rendered non-hazardous and does not pose any adverse effects to human health or the

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environment. Alternatively consult an approved Waste Management company for disposal options. Do not dispose with household rubbish.

Packaging: Recycle wherever possible. Special hazard may exist - specialist advice may be required. Packaging should be rendered incapable of containing any material. Puncture containers to prevent re-use and bury at an authorised landfill. Empty containers may be decontaminated. The residual contents of the package must be diluted to below the thresholds for the respective hazard and the diluted residue is 1% or less of the volume of the package. Alternatively, consult an approved Waste Management company for disposal options or dispose of at an approved waste disposal facility. Observe all label safeguards until containers are cleaned and destroyed. Where possible retain label warnings and SDS and observe all notices pertaining to the product. Must not be disposed of in household rubbish.

TRANSPORT INFORMATION

Not classified as hazardous by the transport of dangerous goods.

REGULATORY INFORMATION

EPA Approval Code: HSR002503 – Additives, Process Chemicals and Raw Materials (Subsidiary Hazard) Group Standard 2020

HSNO Classifications: 6.1D, 6.3A, 6.4A

OTHER INFORMATION

End of SDS.