

1. IDENTIFICATION

Product Name	Soda Ash Dense
Other Names	Carbonic acid disodium salt; Carbonic acid, disodium salt; Disodium Carbonate; Soda Ash; Sodium Carbonate; Sodium Carbonate, Anhydrous
Uses	Glass manufacturing, chemical manufacturing, pulp and paper, water treatment and pH control, soap and detergent manufacturing, coal treatment, emission control, iron exchange resin regeneration.
Chemical Family	Inorganic (alkaline) salt
Chemical Formula	Na ₂ CO ₃
Chemical Name	Soda Ash Dense
Product Description	No Data Available

Contact Details of the Supplier of this Safety Data Sheet

Organisation	Location	Telephone
Redox Pty Ltd	2 Swettenham Road Minto NSW 2566 Australia	+61-2-97333000
Redox Pty Ltd	11 Mayo Road Wiri Auckland 2104 New Zealand	+64-9-2506222
Redox Inc.	2132A E. Dominguez Street Carson CA 90810 USA	+1-424-675-3200
Redox Chemicals Sdn Bhd	No. 8, Block G, Ground Floor, Taipan 2 Jalan PJU 1A/3 Ara Damansara 47301, Petaling Jaya, Selangor, Malaysia	+60-3-7843-6833

Emergency Contact Details

For emergencies only; DO NOT contact these companies for general product advice.

Organisation	Location	Telephone
Poisons Information Centre	Westmead NSW	1800-251525 131126
Chemcall	Australia	1800-127406 +64-4-9179888
Chemcall	Malaysia	+64-4-9179888
Chemcall	New Zealand	0800-243622 +64-4-9179888
National Poisons Centre	New Zealand	0800-764766
CHEMTREC	USA & Canada	1-800-424-9300 CN723420 +1-703-527-3887

2. HAZARD IDENTIFICATION

Poisons Schedule (Aust) 5

Globally Harmonised System

Hazard Classification

Hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)

Hazard Categories Serious Eye Damage/Irritation - Category 2A

Pictograms



Signal Word Warning

Hazard Statements **H319** Causes serious eye irritation.

Precautionary Statements

Prevention	P280	Wear eye protection/face protection.
	P264	Wash skin thoroughly after handling.
Response	P337 + P313	If eye irritation persists: Get medical advice/attention.
	P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Dangerous Goods Classification NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Environmental Protection Authority (New Zealand)

Hazardous Substances and New Organisms Amendment Act 2015

HSNO Classifications

Health Hazards	6.1D	Substances that are acutely toxic - Harmful
	6.1E	Substances that are acutely toxic –May be harmful, Aspiration hazard
	6.3A	Substances that are irritating to the skin
	6.4A	Substances that are irritating to the eye

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Sodium carbonate anhydrous	Na ₂ CO ₃	497-19-8	>=99.5 %

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

Swallowed If victim is conscious and alert, give 1-2 glasses of water to drink. Do not give anything by mouth to an unconscious person. Seek immediate medical attention. Do not leave victim unattended.

Eye Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes. Seek immediate medical attention.

Skin In case of contact, immediately wash with plenty of soap and water for at least 5 minutes. See medical attention if irritation develops or persists. Remove contaminated clothing and shoes. Clean contaminated clothing and shoes before re-use.

Inhaled Remove victim from immediate source of exposure and assure that the victim is breathing. If breathing is difficult, administer oxygen, if available. If victim is not breathing, administer CPR (cardio-pulmonary resuscitation). Seek immediate medical attention.

Advice to Doctor	Treat symptomatically based on judgement of doctor and individual reactions of patient.
Medical Conditions Aggravated by Exposure	No information available on medical conditions aggravated by exposure to this product.

5. FIRE FIGHTING MEASURES

General Measures	Clear fire area of all non-emergency personnel. Stay upwind. Keep out of low areas. Eliminate ignition sources. Move fire exposed containers from fire area if it can be done without risk.
Flammability Conditions	Product is a non-flammable solid.
Extinguishing Media	In case of fire, use appropriate extinguishing media most suitable for surrounding fire conditions. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Fire and Explosion Hazard	Non-Combustible.
Hazardous Products of Combustion	Carbon oxides, Sodium oxides.
Special Fire Fighting Instructions	Do NOT allow fire fighting water to reach waterways, drains or sewers. Store fire fighting water for treatment.
Personal Protective Equipment	Fire fighters should wear a positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots and gloves).
Flash Point	No Data Available
Lower Explosion Limit	No Data Available
Upper Explosion Limit	No Data Available
Auto Ignition Temperature	No Data Available
Hazchem Code	No Data Available

6. ACCIDENTAL RELEASE MEASURES

General Response Procedure	Avoid accidents, clean up immediately. Slippery when spilt. Eliminate all sources of ignition. Increase ventilation. Avoid generating dust. Stop leak if safe to do so. Isolate the danger area. Use clean, non-sparking tools and equipment.
Clean Up Procedures	Contain and sweep/shovel up spills with dust binding material or use an industrial vacuum cleaner. Transfer to a suitable, labelled container and dispose of promptly. Large spills should be handled according to a predetermined plan.
Containment	Stop leak if safe to do so. Isolate the danger area.
Decontamination	Decontaminate tools and equipment following clean up. Clean up residual material by washing area with water.
Environmental Precautionary Measures	Do NOT let product reach drains or waterways. If product does enter a waterway, advise the Environmental Protection Authority or your local Waste Management.
Evacuation Criteria	Evacuate all unnecessary personnel.
Personal Precautionary Measures	Personnel involved in the clean up should wear full protective clothing as listed in section 8.

7. HANDLING AND STORAGE

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 discharges by bonding and grounding equipment. Avoid contact with eyes, skin and clothing. Do not inhale product dust.
Storage	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 as listed in section 10. Protect from direct sunlight, moisture and static discharges. This product is not classified dangerous for transport according to The Australian Code for the Transport of Dangerous Goods By Road and Rail.
Container	Store in original packaging as approved by manufacturer.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General	No exposure standard has been established for this product by the Safe Work Australia (SWA). However, the exposure standard for dust not otherwise specified is 10mg/m ³ (for inspirable dust) and 3mg/m ³ (for respirable dust). NOTE: The exposure value at the TWA is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. These exposure standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.
Exposure Limits	No Data Available
Biological Limits	No information available on biological limit values for this product.
Engineering Measures	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. Adequate ventilation should be provided so that exposure limits are not exceeded.
Personal Protection Equipment	RESPIRATOR: Air -purifying (half-mask / full-face) respirator with cartridges / canister approved for use against dusts, mists and fumes (AS1715/1716). EYES: Protective glasses or goggles should be worn when this product is being used (AS1336/1337). HANDS: Wear suitable impervious elbow-length gloves (AS2161). CLOTHING: Long-sleeved protective clothing and safety footwear (AS3765/2210).
Special Hazards Precautions	Thoroughly launder protective clothing before storage or re-use. Advise laundry of nature of contamination when sending contaminated clothing to laundry.
Work Hygienic Practices	No Data Available

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid
Appearance	Granular Solid
Odour	Odourless
Colour	White
pH	11.3 1% solution
Vapour Pressure	No Data Available
Relative Vapour Density	No Data Available
Boiling Point	No Data Available
Melting Point	851 °C
Freezing Point	No Data Available
Solubility	217 g/l 20°C
Specific Gravity	2.53
Flash Point	No Data Available
Auto Ignition Temp	No Data Available
Evaporation Rate	No Data Available
Bulk Density	No Data Available
Corrosion Rate	No Data Available
Decomposition Temperature	400 °C
Density	No Data Available
Specific Heat	No Data Available
Molecular Weight	No Data Available
Net Propellant Weight	No Data Available
Octanol Water Coefficient	No Data Available
Particle Size	No Data Available
Partition Coefficient	No Data Available

Saturated Vapour Concentration	No Data Available
Vapour Temperature	No Data Available
Viscosity	No Data Available
Volatile Percent	No Data Available
VOC Volume	No Data Available
Additional Characteristics	No Data Available
Potential for Dust Explosion	No Data Available
Fast or Intensely Burning Characteristics	No Data Available
Flame Propagation or Burning Rate of Solid Materials	No Data Available
Non-Flammables That Could Contribute Unusual Hazards to a Fire	No Data Available
Properties That May Initiate or Contribute to Fire Intensity	No Data Available
Reactions That Release Gases or Vapours	No Data Available
Release of Invisible Flammable Vapours and Gases	No Data Available

10. STABILITY AND REACTIVITY

Chemical Stability	Product is stable under normal conditions of use, storage and temperature.
Conditions to Avoid	Extreme Heat; Hygroscopic. Protect from moisture, Mixing of acid and sodium carbonate solutions could cause carbon dioxide evolution.
Materials to Avoid	Aluminum Fluorine Humid Air Moisture Sulfuric Acid Acids Magnesium Phosphorus Pentoxide.
Hazardous Decomposition Products	Decomposition Temperature: 400 Deg C. Decomposition product: Carbon dioxide.
Hazardous Polymerisation	This product is unlikely to react or decompose under normal storage conditions. However, if you have any doubts, contact the supplier for advice on shelf life properties. The product will not undergo polymerisation reactions.

11. TOXICOLOGICAL INFORMATION

General Information	<p>Acute Eye Irritation: Toxicological Information and Interpretation Eye – Eye Irritation, 25 mg/Kg, Rabbit. Severely Irritating; Muscle contraction or spasticity.</p> <p>Acute Skin Irritation: Toxicological Information and Interpretation Skin – 500 mg/24 hour Skin Irritation, Rabbit. Mildly irritating.</p> <p>Acute Dermal Toxicity LD50. Rabbit: >2,000 mg/kg</p> <p>Acute Inhalation Toxicity: Toxicological Information and Interpretation LD50 – Lethal Concentration. 50% of Test Species, 2,300 mg/cu m/2hr, rat.</p> <p>Acute Oral Toxicity: Toxicological Information and Interpretation LD50 – Lethal Dose. 50% of Test Species, 4,090 mg/kg, rat.</p> <p>Chronic Toxicity This product does not contain any substances that are considered by OSHA, NTP, IARC or ACGIH to be “probably” or “suspected” human carcinogens</p>
Eyelrritant	May cause severe irritation, redness, or swelling.
Ingestion	May cause gastrointestinal irritation, nausea, vomiting, or diarrhea.
Inhalation	May cause upper respiratory tract, lung, and irritation to mucus membranes.
SkinIrritant	May cause itching, redness, or swelling.

Carcinogen Category No Data Available

12. ECOLOGICAL INFORMATION

Ecotoxicity Toxicity
 Toxicity to fish LC50 - Lepomis macrochirus (Bluegill) - 300 mg/l - 96 h
 Toxicity to daphnia and other aquatic invertebrates EC50 - Daphnia magna (Water flea) - 265 mg/l - 48 h

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

Mobility No information available on mobility for this product.

Environmental Fate Do NOT let product reach waterways, drains and sewers.

Bioaccumulation Potential No information available on bioaccumulation for this product.

Environmental Impact No Data Available

13. DISPOSAL CONSIDERATIONS

General Information 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. Rinse containers before disposal.

Special Precautions for Land Fill Contact a specialist disposal company or the local waste regulator for advice.

14. TRANSPORT INFORMATION

Land Transport (Australia)
 ADG

Proper Shipping Name SODA ASH DENSE
Class No Data Available
Subsidiary Risk(s) No Data Available
 No Data Available
UN Number No Data Available
Hazchem No Data Available
Pack Group No Data Available
Special Provision No Data Available

Land Transport (Malaysia)
 NZS5433

Proper Shipping Name SODA ASH DENSE
Class No Data Available
Subsidiary Risk(s) No Data Available
 No Data Available
UN Number No Data Available
Hazchem No Data Available
Pack Group No Data Available
Special Provision No Data Available

Land Transport (New Zealand)

NZS5433

Proper Shipping Name	SODA ASH DENSE
Class	No Data Available
Subsidiary Risk(s)	No Data Available
	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available

Land Transport (Papua New Guinea)

Proper Shipping Name	SODA ASH DENSE
Class	No Data Available
Subsidiary Risk(s)	No Data Available
	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available

Land Transport (United States of America)

US DOT

Proper Shipping Name	SODA ASH DENSE
Class	No Data Available
Subsidiary Risk(s)	No Data Available
	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available

Sea Transport

IMDG

Proper Shipping Name	SODA ASH DENSE
Class	No Data Available
Subsidiary Risk(s)	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available
EMS	No Data Available
Marine Pollutant	No

Air Transport

IATA

Proper Shipping Name	SODA ASH DENSE
Class	No Data Available

Subsidiary Risk(s)	No Data Available
UN Number	No Data Available
Hazchem	No Data Available
Pack Group	No Data Available
Special Provision	No Data Available

National Transport Commission (Australia)

Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Dangerous Goods Classification	NOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)
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15. REGULATORY INFORMATION

General Information	No Data Available
Poisons Schedule (Aust)	5

Environmental Protection Authority (New Zealand)

Hazardous Substances and New Organisms Amendment Act 2015

Approval Code	HSR003265
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National/Regional Inventories

Australia (AICS)	Listed
Canada (DSL)	Listed
Canada (NDSL)	Not Listed
China (IECSC)	Listed
Europe (EINECS)	207-838-8
Europe (REACH)	Listed
Japan (ENCS/METI)	1-164
Korea (KECI)	KE-31380
Malaysia (EHS Register)	Listed
New Zealand (NZIoC)	Listed
Philippines (PICCS)	Listed
Switzerland (Giftliste 1)	Not Determined
Switzerland (Inventory of Notified Substances)	Not Determined
Taiwan (NCSR)	Listed
USA (TSCA)	Listed

16. OTHER INFORMATION

Related Product Codes

SODCAL1000, SOCABR1000, SOCABR1100, SOCABR2000, SOCARB1000, SOCARB1001, SOCARB1002, SOCARB1003, SOCARB1004, SOCARB1005, SOCARB1006, SOCARB1007, SOCARB1008, SOCARB1009, SOCARB1010, SOCARB1011, SOCARB1012, SOCARB1013, SOCARB1014, SOCARB1015, SOCARB1016, SOCARB1017, SOCARB1018, SOCARB1019, SOCARB1100, SOCARB1101, SOCARB1102, SOCARB1103, SOCARB1104, SOCARB1105, SOCARB1200, SOCARB1201, SOCARB1202, SOCARB1300, SOCARB1500, SOCARB1501, SOCARB1600, SOCARB2000, SOCARB2500, SOCARB2501, SOCARB2502, SOCARB2503, SOCARB2504, SOCARB2505, SOCARB2600, SOCARB3000, SOCARB4000, SOCARB4600, SOCARB4700, SOCARB4701, SOCARB4800, SOCARB4900, SOCARB5000, SOCARB5001, SOCARB5100, SOCARB5200, SOCARB5201, SOCARB5300, SOCARB5400, SOCARB5500, SOCARB5501, SOCARB5600, SOCARB5700, SOCARB5800, SOCARB5900, SOCARB6000, SOCARB6001, SOCARB6100, SOCARB6200, SOCARB7000, SOCARB7001, SOCARB8000, SOCARB8001, SOCARB8002, SOCARB8100, SOCARB8101, SOCARB9000, SODCAB1000, SODCAB1001, SODCAB1002, SODCAB1003, SODCAB1004, SODCAB1005, SODCAB1006, SODCAB1100, SODCAB1101, SODCAB1102, SODCAB1103, SODCAB1104, SODCAB1105, SODCAB1106, SODCAB1200, SODCAB2600, SODCAB2700, SODCAB2800, SODCAB2900, SODCAB3000, SODCAB3100, SODCAB3200, SODCAB3300, SODCAB3400, SODCAB3500, SODCAB3600, SODCAB3700, SODCAB3800, SODCAB3900, SODCAB4000, SODCAB4100, SODCAB4200, SODCAB4300, SODCAB5500, SODCAB5800, SODCAB5801, SODCAB5900, SODCAB6000, SODCAB6001, SODCAB6100, SODCAB7000, SODCAB7500, SODCAB7600, SODCAB8000, SODCAB8800, SODCAB9000, SODCAB9500, SODCAB9600, SODCAR0500, SODCAR0501, SODCAR0502, SODCAR0503, SODCAR1000, SODCAR1001, SODCAR1002, SODCAR1003, SODCAR1004, SODCAR1005, SODCAR1006, SODCAR1007, SODCAR1008, SODCAR1009, SODCAR1100, SODCAR2000, SODCAR2001, SODCAR3000, SODCAR3001, SODCAR3100, SODCAR3300, SODCAR3400, SODCAR3500, SODCAR4000, SODCAR5000, SODCAR5001, SODCAR5500, SODCAR7000, SODCAR7500, SODCAR9000, SODCAR9500, SOCARF1000, SOCARF1001, SOCARF2500, SOCARF5000, SOCARF5001, SOCARF5100, SOCARF5200, SOCARF9900, SOCARB9500, SOCARB1807, SOCARB1808, SOCARB1809, SOCARB1810, SOCARB1811, SOCARB1812, SOCARB1813, SOCARB1814, SOCARB1815, SOCARB1816, SOCARB1817, SOCARB1818, SOCARB9990, SOCARB5510, SODCAB2901, SOCARB9200, SODCAB6010, SODCAB5910, SOCARB1150, SOCARB6500, SOCARB6501, SODCAB6500, SODCAB6501, SODCAR6500, SOCARB5601, SODCAB1107, SOCARB6600, SOCARB6601, SODCAB6600, SODCAB6601, SOCARB1700, SOCARB1106, SOCARB9600, SODCAB6605, SODCAB1210, SOCARB5602, SOCARB5605, SOCARB0215, SOCARB2515, SOCARB0005, SOCARF5002, SOCARB5110, SOCARB5401, SODCAB6015, SOCARB1650, SOCARB3010, SOCARB3020, SOCARB3030, SOCARB3040, SOCARF3000, SODCAB3501, SOCARB5608, SOCARB5606, SOCARB5610, SOCARB1107, SODCAB3503, SOCARB2525, SOCARB2530

Revision

3

Revision Date

25 Feb 2014

Key/Legend

< Less Than

> Greater Than

AICS Australian Inventory of Chemical Substances**atm** Atmosphere**CAS** Chemical Abstracts Service (Registry Number)**cm²** Square Centimetres**CO₂** Carbon Dioxide**COD** Chemical Oxygen Demand**deg C (°C)** Degrees Celcius**EPA (New Zealand)** Environmental Protection Authority of New Zealand**deg F (°F)** Degrees Farenheit**g** Grams**g/cm³** Grams per Cubic Centimetre**g/l** Grams per Litre**HSNO** Hazardous Substance and New Organism**IDLH** Immediately Dangerous to Life and Health**immiscible** Liquids are insoluable in each other.**inHg** Inch of Mercury**inH₂O** Inch of Water**K** Kelvin**kg** Kilogram**kg/m³** Kilograms per Cubic Metre**lb** Pound**LC₅₀** LC stands for lethal concentration. LC₅₀ is the concentration of a material in air which causes the death of 50% (one half) of a group of test animals. The material is inhaled over a set period of time, usually 1 or 4 hours.**LD₅₀** LD stands for Lethal Dose. LD₅₀ is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals.**ltr** or **L** Litre**m³** Cubic Metre**mbar** Millibar**mg** Milligram**mg/24H** Milligrams per 24 Hours**mg/kg** Milligrams per Kilogram**mg/m³** Milligrams per Cubic Metre**Misc** or **Miscible** Liquids form one homogeneous liquid phase regardless of the amount of either component

present.

mm Millimetre

mmH₂O Millimetres of Water

mPa.s Millipascals per Second

N/A Not Applicable

NIOSH National Institute for Occupational Safety and Health

NOHSC National Occupational Health and Safety Commission

OECD Organisation for Economic Co-operation and Development

Oz Ounce

PEL Permissible Exposure Limit

Pa Pascal

ppb Parts per Billion

ppm Parts per Million

ppm/2h Parts per Million per 2 Hours

ppm/6h Parts per Million per 6 Hours

psi Pounds per Square Inch

R Rankine

RCP Reciprocal Calculation Procedure

STEL Short Term Exposure Limit

TLV Threshold Limit Value

tne Tonne

TWA Time Weighted Average

ug/24H Micrograms per 24 Hours

UN United Nations

wt Weight