

Safety Data Sheet Soda Ash Dense Revision 3, Date 29 Dec 2014

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 Na2CO3

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)

Sydney





Hazard Categories Serious Eye Damage/Irritation - Category 1

Specific Target Organ Toxicity (Single Exposure) - Category 3

Pictograms





Signal Word Danger

Hazard Statements H318 Causes serious eye damage.

H335 May cause respiratory irritation.

Precautionary Statements Prevention **P271** Use only outdoors or in a well-ventilated area.

P261 Avoid breathing dust.

P280 Wear eye protection/face protection.

Response P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact

lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER or doctor/physician.

P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position

comfortable for breathing.

P312 Call a POISON CENTER or doctor/physician if you feel unwell.

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

Disposal P501 Dispose of contents/container in accordance with local / regional / national /

international regulations.

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

Storage

HSNO Classifications Health Hazards 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 skin6.4A Substances that are irritating to the eye

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Sodium Carbonate	Na2CO3	497-19-8	99.8 %

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 DoctorTreat 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 PrecautionaryDo 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/m3 (for inspirable dust) and 3mg/m3 (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 Precaustions 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 No Data Available Viscosity **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 No Data Available Characteristics

Flame Propagation or Burning **Rate of Solid Materials**

No Data Available

Non-Flammables That Could

No Data Available

Contribute Unusual Hazards to a Fire

Properties That May Initiate or Contribute to Fire Intensity

No Data Available

Reactions That Release Gases

No Data Available

or Vapours

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 Acute Eye Irritation: Toxicological Information and Interpretation

Eye - Eye Irritation, 25 mg/Kg, Rabbit. Severely Irritating; Muscle contraction or spasticity.

Acute Skin Irritation: Toxicological Information and Interpretation Skin - 500 mg/24 hour Skin Irritation, Rabbit. Mildly irritating.

Acute Dermal Toxicity LD50. Rabbit: >2,000 mg/kg

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Acute Inhalation Toxicity: Toxicological Information and Interpretation LD50 – Lethal Concentration. 50% of Test Species, 2,300 mg/cu m/2hr, rat.

Acute Oral Toxicity: Toxicological Information and Interpretation LD50 – Lethal Dose. 50% of Test Species, 4,090 mg/kg, rat.

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 May cause severe irritation, redness, or swelling.

Eyelritant 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/DegradabilityNo information available on persistence/degradability for this product.

MobilityNo information available on mobility for this product.Environmental FateDo NOT let product reach waterways, drains and sewers.Bioaccumulation PotentialNo 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 NameSODA ASH DENSEClassNo Data AvailableSubsidiary Risk(s)No Data AvailableNo Data AvailableUN NumberNo Data AvailableHazchemNo Data Available

Pack GroupNo Data AvailableSpecial ProvisionNo Data Available

Land Transport (Malaysia)

NZS5433

Proper Shipping Name

Class

No Data Available
Subsidiary Risk(s)

No Data Available
No Data Available
No Data Available
No Data Available
Hazchem

No Data Available
Pack Group

No Data Available

Land Transport (New Zealand)

NZS5433

Proper Shipping Name

Class

No Data Available
Subsidiary Risk(s)

No Data Available
No Data Available
No Data Available
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

Class

No Data Available

Subsidiary Risk(s)

No Data Available

No Data Available

No Data Available

No Data Available

Hazchem

No Data Available

Pack Group

No Data Available

Land Transport (United States of America)

US DOT

Proper Shipping Name

Class

No Data Available
Subsidiary Risk(s)

No Data Available
No Data Available
No Data Available
No Data Available
Hazchem

No Data Available
Pack Group

No Data Available

Sea Transport

IMDG

Proper Shipping NameSODA ASH DENSEClassNo Data AvailableSubsidiary 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

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 ClassificationNOT Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous

Goods by Road & Rail (ADG Code)

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

National/Regional Inventories

Australia (AICS) Listed

Canada (DSL) Not Determined

Canada (NDSL) Not Determined

China (IECSC) Not Determined

Europe (EINECS) Not Determined

Europe (REACh) Not Determined

Japan (ENCS/METI) Not Determined

Korea (KECI) Not Determined

Malaysia (EHS Register) Not Determined

New Zealand (NZIoC) Listed

Philippines (PICCS) Not Determined

Switzerland (Giftliste 1) Not Determined

Switzerland (Inventory of Notified

Substances)

Not Determined

Taiwan (NCSR) Not Determined

USA (TSCA) Not Determined

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

Revision

Revision Date 29 Dec 2014

Key/Legend < Less Than

AICS Australian Inventory of Chemical Substances

> Greater Than AICS Australian II atm Atmosphere

CAS Chemical Abstracts Service (Registry Number)

cm² Square CentimetresCO2 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/I 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

Ib 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. **Itr** 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

mmH20 Millimetres of Water

mPa.s Millipascals per Second

N/A Not Applicable

NIOSH National Institute for Occupational Safety and Health

NOHSC National Occupational Heath 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