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SODIUM CARBONATE

Telford Industries
Safety Data Sheet according to WHS and ADG requirements

SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

Product Identifier

Product name	SODIUM CARBONATE
Chemical Name	SODIUM CARBONATE
Synonyms	Soda Ash Dense, Carbonic Acid Disodium Salt, Dry Alkali, Light Soda Ash, Sodium Carbonate Anhydrous
Proper shipping name	Not Applicable
Chemical formula	Na_2CO_3
Other means of identification	Not Available

Relevant identified uses of the substance or mixture and uses advised against

Relevant Identified 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.

Details of the supplier of the safety data sheet

Company Name	**Telford Industries**
Address	**7 Valentine Street Kewdale WA 6105 Australia**
Telephone	**+61 8 9353 2053**
Website	**https://www.telfordindustries.com.au/**
Email	**info@telfordindustries.com.au**

Emergency telephone number

Association/Organisation	**Not Available**
Emergency telephone numbers	**1800 429 628**
Other Emergency telephone numbers	**1800 HAZMAT**

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

HAZARDOUS CHEMICAL. NOT DANGEROUS GOODS. According to the WHS Regulations and the ADG Code.

Poisons Schedule	**Not Applicable**
Classification	Eye damage – category 1, Specific target organ toxicity (single exposure) – category 3

Label Elements

GHS label elements	
SIGNAL WORD	**DANGER**

Hazard statement(s)

H318	Causes serious eye damage.
H335	May cause respiratory irritation.

Precautionary statement(s) Prevention

P261	Avoid breathing dust/fumes.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statement(s) 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.
P337+P313	If eye irritation persists: Get medical advice/attention.

Precautionary statement(s) Storage

P405	Store locked up.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.

Precautionary statement(s) Disposal

P501	Dispose of contents/container in accordance with local regulations.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

CAS No	% [weight]	Name
497-19-8	≥99	sodium carbonate

SECTION 4 FIRST AID MEASURES

Description of first aid measures

Eye Contact	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. ➢ Transport to hospital or doctor without delay. ➢ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If skin or hair contact occurs: ➢ Immediately flush body and clothes with large amounts of water, using safety shower if available. ➢ Quickly remove all contaminated clothing, including footwear. ➢ Transport to hospital, or doctor.
Inhalation	➢ If fumes or combustion products are inhaled remove from contaminated area. ➢ Transport to hospital, or doctor if necessary.
Ingestion	➢ Immediately give a glass of water. ➢ First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5 FIREFIGHTING MEASURES

Extinguishing Media

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

Special hazards arising from the substrate or mixture

Fire Incompatibility	Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result.

Advice for firefighters

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 course.
Fire/Explosion Hazard	➢ The material is not readily combustible under normal conditions. ➢ Not considered to be a significant fire risk. Decomposes on heating and produces acrid and toxic fumes of: ➢ carbon monoxide (CO) ➢ carbon dioxide (CO_2) Decomposes on heating may emit poisonous/corrosive fumes.
HAZCHEM	Not Applicable

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

Minor Spills	➢ Clean up all spills immediately. ➢ Avoid contact with skin and eyes. ➢ Control personal contact with the substance, by using protective equipment. ➢ Use dry clean up procedures and avoid generating dust. ➢ Place in a suitable, labeled container for waste disposal. ➢ Drains for storage or use areas should have retention basins for pH adjustments and dilution of spills before discharge or disposal of material.
Major Spills	➢ 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 course. ➢ Consider evacuation (or protect in place). ➢ Collect recoverable product into labelled containers for recycling. ➢ Neutralize/decontaminate residue (see Section 13 for specific agent). ➢ Collect solid residues and seal in labelled drums for disposal. ➢ Wash area and prevent runoff into drains. ➢ After clean up operations, decontaminate and launder all protective clothing and equipment before storing and re-using. ➢ If contamination of drains or waterways occurs, advise emergency services.

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

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

Safe handling	➢ Avoid all personal contact, including inhalation. ➢ Wear protective clothing when risk of exposure occurs. ➢ When handling DO NOT eat, drink or smoke. ➢ Keep containers securely sealed when not in use. ➢ Work clothes should be laundered separately. Use good occupational work practice. ➢ Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained
Other Information	➢ Store in original containers. ➢ Store in a cool, dry, well-ventilated area. ➢ Store away from incompatible materials and foodstuff containers. ➢ Protect containers against physical damage and check regularly for leaks. ➢ DO NOT store near acids, or oxidising agents ➢ No smoking, naked lights, heat or ignition sources.

Conditions for safe storage, including any incompatibilities

Suitable Container	➢ DO NOT use aluminium or galvanised containers. ➢ Polyethylene or polypropylene container. ➢ Check all containers are clearly labelled and free from leaks.
Storage Incompatibility	➢ Avoid strong acids, acid chlorides, acid anhydrides and chloroformates. ➢ Segregate from monoammonium phosphate and strong oxidisers. ➢ Reacts rapidly with acidic materials, generates carbon dioxide gas, which may pressurise, even violently rupture containers.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Not Available.

EMERGENCY LIMITS

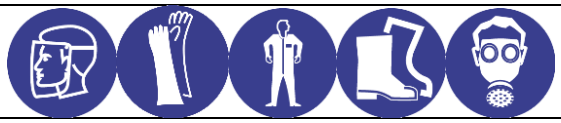
Ingredient	Material Name	TEEL-1	TEEL-2	TEEL-3
sodium carbonate	sodium carbonate	7.6 mg/m3	83 mg/m3	500 mg/m3

Ingredient	Original IDLH	Revised IDLH
sodium carbonate	Not Available	Not Available

MATERIAL DATA

Exposure controls

Appropriate engineering controls	Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.

Personal Protection	
Eye and Face protection	➢ Safety glasses with imperforated side shields may be used where continuous eye protection is desirable, as in laboratories; spectacles are not sufficient where complete eye protection is needed such as when handling bulk-quantities, where there is a danger of splashing, or if the material may be under pressure. ➢ Chemical goggle. whenever there is a danger of the material coming in contact with the eyes; goggles must be properly fitted. ➢ Full face shield (20 cm, 8 in minimum) may be required for supplementary but never for primary protection of eyes. ➢ Alternatively a gas mask may replace splash goggles and face shields.
Skin protection	See Hand protection below
Hands/feet protection	➢ Elbow length PVC gloves ➢ When handling corrosive liquids, wear trousers or overalls outside of boots, to avoid spills entering boots. ➢ Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended.
Body protection	See Other protection below
Other protection	➢ Overalls. ➢ PVC Apron. ➢ PVC protective suit may be required if exposure severe. ➢ Eyewash unit. ➢ Ensure there is ready access to a safety shower.
Thermal hazards	Not Available

Respiratory protection

Type B-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Granular Solid

Physical state	Solid	**pH as a Solution**	11.3 (1% aqueous solution)
Odour	Odourless	**Molecular Weight (g/mole)**	106
Odour threshold	Not Available	**Flammability**	Not Applicable
Relative density (water=1)	2.54	**Upper Explosive Limit (%)**	Not Applicable
Colour	White	**Lower Explosive Limit (%)**	Not Applicable
pH (as supplied)	Not Applicable	**Vapour pressure (kPa)**	Not Available
Melting point/Freezing point (°C)	850	**Solubility in water (g/L)**	Soluble
Initial boiling point and boiling range (°C)	Not Available	**Vapour density (Air = 1)**	Not Available

SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	➢ Unstable in the presence of incompatible materials. ➢ Product is considered stable. ➢ Hazardous polymerisation will not occur.
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7

Hazardous decomposition products	See section 5

SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

Inhaled	The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models).
Ingestion	Although ingestion is not thought to produce harmful effects (as classified under EC Directives), the material may still be damaging to the health of the individual, following ingestion, especially where pre-existing organ (e.g liver, kidney) damage is evident.
Skin Contact	Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions. The material may produce mild skin irritation;
Eye	Limited evidence or practical experience suggests that the material may cause eye irritation in a substantial number of individuals. Repeated or prolonged eye contact may cause inflammation characterised by temporary redness (similar to windburn) of the conjunctiva (conjunctivitis); temporary impairment of vision and/or other transient eye damage/ulceration may occur.
Chronic	Long-term exposure to the product is not thought to produce chronic effects adverse to health (as classified by EC Directives using animal models); nevertheless exposure by all routes should be minimised as a matter of course.

Product Name	TOXICITY	IRRITATION
sodium carbonate	dermal (rat) LD50: >2000 mg/kg[2]	Eye (rabbit): 100 mg/24h moderate
	Inhalation (guinea pig) LC50: 0.8 mg/L/2hr[2]	Eye (rabbit): 100 mg/30s mild
	Inhalation (mouse) LC50: 1.2 mg/L/2hr[2]	Skin (rabbit): 500 mg/24h mild
	Inhalation (rat) LC50: 2.3 mg/L/2hr[2]	
	Oral (rat) LD50: 2800 mg/kg[2]	

1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2. Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances*

sodium carbonate	The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterised by skin redness (erythema) and swelling epidermis. Histologically there may be intercellular oedema of the spongy layer (spongiosis) and intracellular oedema of the epidermis. Oral (human-infant) TDL: 1260 mg/kg Skin (human): 30 mg/3d-I-mild

Acute Toxicity	✗	**Carcinogenicity**	⊘
Skin Irritation/Corrosion	⊘	**Reproductivity**	⊘
Serious Eye Damage/Irritation	✓	**STOT – single exposure**	✓
Respiratory or Skin sensitisation	✓	**STOT – repeated exposure**	⊘
Mutagenicity	⊘	**Aspiration Hazard**	⊘

Legend: ✗ *– Data available but does not fill the criteria for classification*
✓ *– Data required to make classification available*
⊘ *– Data Not Available to make classification*

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

Ingredient	Endpoint	Test Duration (hr)	Species	Value	Source
sodium carbonate	LC50	96	Fish	300mg/L	4
sodium carbonate	EC50	48	Crustacean	=176mg/L	1

sodium carbonate	EC50	96	Algae or other aquatic plants	242mg/L	4
sodium carbonate	EC50	384	Crustacean	149.200mg/L	3
sodium carbonate	NOEC	16	Crustacean	424mg/L	4
Legend:	*Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data*				

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
sodium carbonate	LOW	LOW

Bio accumulative potential

Ingredient	Bioaccumulation
sodium carbonate	LOW (Log KOW = -0.4605)

Mobility in Soil

Ingredient	Mobility
sodium carbonate	HIGH (KOC = 1)

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

Product/Packaging disposal	➢ Containers may still present a chemical hazard/danger when empty. ➢ Return to supplier for reuse/recycling if possible. ➢ **DO NOT** allow wash water from cleaning or process equipment to enter drains. ➢ In all cases disposal to sewer may be subject to local laws and regulations. ➢ Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified. ➢ Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.

SECTION 14 TRANSPORT INFORMATION

Labels Required

Not Applicable

Land transport (ADG), Air transport (ICAO-IATA / DGR), Sea transport (IMDG-Code / GGVSee)

Not Applicable

Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

SECTION 15 REGULATORY INFORMATION

Safety, health and environmental regulations / legislation specific for the substance or mixture

SODIUM CARBONATE (497-19-8) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Inventory of Chemical Substances (AICS)
Australia Hazardous Substances Information System - Consolidated Lists

National Inventory	Status
Australia - AICS	Y
Canada - DSL	Y
Canada - NDSL	N (sodium carbonate)
China - IECSC	Y
Europe - EINEC / ELINCS / NLP	Y
Japan - ENCS	Y
Korea - KECI	Y
New Zealand - NZIoC	Y
Philippines - PICCS	Y
USA - TSCA	Y
Legend:	*Y = All ingredients are on the inventory* *N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)*

SECTION 16 OTHER INFORMATION

The 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. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

Definitions and abbreviations

Name	CAS No		
PC—TWA	Permissible Concentration-Time Weighted Average	**PC—STEL**	Permissible Concentration-Short Term Exposure Limit
IARC	International Agency for Research on Cancer	**ACGIH**	American Conference of Governmental Industrial Hygienists
STEL	Short Term Exposure Limit	**TEEL**	Temporary Emergency Exposure Limit
IDLH	Immediately Dangerous to Life or Health Concentrations	**OSF**	Odour Safety Factor
NOAEL	No Observed Adverse Effect Level	**LOAEL**	Lowest Observed Adverse Effect Level
TLV	Threshold Limit Value	**LOD**	Limit Of Detection
OTV	Odour Threshold Value	**BCF**	BioConcentration Factors
BEI	Biological Exposure Index		

END OF SDS