



# Material Safety Data Sheet

## SODIUM CARBONATE ANHYDRATE

Infosafe™ No. JXFMC Issue Date November 2011 Status ISSUED by AJAXFC BS: 1.13.17

**Classified as hazardous according to criteria of NOHSC**

### 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

**Product Name** SODIUM CARBONATE ANHYDRATE

**Company Name** ThermoFisher Scientific Australia Pty Ltd (ABN 52 058 390 917)

**Address** 5 Caribbean Drive Scoresby  
VIC 3179

**Emergency Tel.** 1800 638 556 (24 hr) Aust / (NZ): Phone 0800 154 666

**Telephone/Fax Number** Tel: (03) 9757 4300  
Fax: 1800 067 639

**Recommended Use** Used as a water softener, general cleanser, photographic agent, catalyst in coal liquefaction, and food additive. Textile processing (bleaching of linen, hemp, cotton), petroleum refining, and the manufacture of glass, sodium compounds, pulp and paper, soaps and detergents, and aluminum.

Other Names	Name	Product Code
	SODIUM CARBONATE ANHYDROUS	
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	SODIUM CARBONATE ANHYDROUS	
	SODIUM CARBONATE	
	SODIUM CARBONATE ANHYDRATE	

**Other Information** NEW ZEALAND:  
Thermo Fisher Scientific New Zealand Ltd  
244 Bush Road, Albany  
Auckland, New Zealand  
Ph: 09 980 6700  
Fax: 09 980 6788  
Email: NZinfo@thermofisher.com  
Emergency Advice (NZ): Phone 0800 154 666

### 2. HAZARDS IDENTIFICATION

**Hazard Classification** Australia:  
Classified as Hazardous according to criteria of National Occupational Health & Safety Commission (NOHSC), Australia.  
Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)  
New Zealand:

Classified as Hazardous according to the New Zealand Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001.  
Not classified as Dangerous Goods for transport according to the New Zealand Standard NZS 5433:2007 Transport of Dangerous Goods on Land.

## HSNO Classification:

6.1D (Inhalation - vapours, dusts or mists) - Substance that is acutely toxic  
6.1E (Oral) - Substance that is acutely toxic  
6.3A - Substance that is irritating to the skin  
6.4A - Substance that is irritating to the eyes

## Hazard statement codes:

H303 May be harmful if swallowed.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H332 Harmful if inhaled.

## Precautionary statement codes - Prevention:

P102 Keep out of reach of children. -This statement applies only where the substance is available to the general public.  
P103 Read label before use. -This statement applies only where the substance is available to the general public.  
P104 Read Safety Data Sheet before use.  
P261 Avoid breathing dust.  
P264 Wash skin thoroughly after handling.  
P271 Use only outdoors or in a well-ventilated area.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.

## Precautionary statement codes - Response:

## GENERAL

P101 If medical advice is needed, have product container or label at hand. - This statement applies only where the substance is available to the general public.  
P312 Call a POISON CENTER or doctor/physician if you feel unwell.  
P331 Do NOT induce vomiting.

## INHALATION

P304+P340 IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.

## EYES

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.

## SKIN

P302+P352 IF ON SKIN: Wash with plenty of soap and water.  
P332+P313 If skin irritation occurs: Get medical advice/ attention.  
P362 Take off contaminated clothing and wash before re-use.

## Precautionary statement codes - Disposal:

P501 In the case of a substance that is in compliance with a HSNO approval other than a Part 6A (Group Standards) approval, a label must provide a description of one or more appropriate and achievable methods for the disposal of a substance in accordance with the Hazardous Substances (Disposal) Regulations 2001. This may also include any method of disposal that must be avoided. See Section 13 for disposal details.

**Risk Phrase(s)** R36 Irritating to eyes.

**Safety Phrase(s)** S22 Do not breathe dust.  
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
S24/25 Avoid contact with skin and eyes.  
S37/39 Wear suitable gloves and eye/face protection.

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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

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Ingredients	Name	CAS	Proportion
	Sodium carbonate	497-19-8	99-100 %
<b>Other Information</b>	Commercially available as the anhydrous compound (Na <sub>2</sub> CO <sub>3</sub> ) and the monohydrate (Na <sub>2</sub> CO <sub>3</sub> .H <sub>2</sub> O).		

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### 4. FIRST AID MEASURES

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<b>Inhalation</b>	If inhaled, remove affected person from contaminated area. Apply artificial respiration if not breathing. Seek medical attention.
<b>Ingestion</b>	If swallowed do NOT induce vomiting. Wash out mouth with water and give plenty of water to drink to dilute the corrosive effects. Seek medical attention.
<b>Skin</b>	If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Seek medical attention if symptoms persist.
<b>Eye</b>	If in eyes, hold eyelids apart and flush the eyes continuously with running water. Continue flushing for several minutes until all contaminants are washed out completely. Seek medical attention.
<b>First Aid Facilities</b>	Eye wash, safety shower and normal washroom facilities.
<b>Advice to Doctor</b>	Treat symptomatically.
<b>Other Information</b>	For advice in an emergency, contact a Poisons Information Centre (Phone eg Australia 13 1126; New Zealand 0800 POISON / 0800 764 766) or a doctor (at once).

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## 5. FIRE FIGHTING MEASURES

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<b>Suitable Extinguishing Media</b>	Use appropriate fire extinguisher for surrounding environment.
<b>Hazards from Combustion Products</b>	Under fire conditions this product may emit toxic and/or irritating fumes and smoke including oxides of sodium, carbon monoxide and carbon dioxide.
<b>Specific Hazards</b>	Non-combustible.
<b>Decomposition Temp.</b>	400°C
<b>Precautions in connection with Fire</b>	Fire fighters should wear Self-Contained Breathing Apparatus (SCBA) operated in positive pressure mode and full protective clothing to prevent exposure to vapours or fumes. Water spray may be used to cool down heat-exposed containers.

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## 6. ACCIDENTAL RELEASE MEASURES

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<b>Emergency Procedures</b>	Restrict access to area. Evacuate all unprotected personnel. Wear sufficient respiratory protection and full protective clothing to prevent exposure. Provide adequate protective equipment and ventilation. Remove chemicals that can react with the spilled material. Stop or reduce discharge if it can be done safely. Contain material. Do not allow sodium carbonate to enter into sewers or water systems. Shovel or sweep up dry sodium carbonate for recycling or disposal. Avoid dust generation or dampen spilled material with water to avoid airborne dust, then transfer material to a suitable container. Neutralize final traces and flush area with water. Contain spilled solutions by diking with absorbent material, such as sand or earth. Solution can be recovered or carefully diluted with water and cautiously neutralized with acids such as acetic acid or hydrochloric acid. Dispose of waste according to the applicable local and national regulations. If contamination of sewers or waterways occurs inform the local water and waste management authorities in accordance with local regulations.
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## 7. HANDLING AND STORAGE

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<b>Precautions for Safe Handling</b>	Wear appropriate protective equipment to prevent skin and eye contact. Avoid generating mist or dust. When diluting or preparing solution, add to water in small amounts to avoid boiling and splattering. Label containers and keep closed when not in use. Empty containers may contain residues that are hazardous. Maintain high standards of personal hygiene i.e. Washing hands
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prior to eating, drinking, smoking or using toilet facilities.

**Conditions for Safe Storage** Store in tightly-closed containers in a cool, dry place separate from normal work area. Area should have a caustic-resistant floor and approved drainage. Store in suitable, labelled containers. Protect containers from damage or breakage. Store separately from acids and other incompatible materials. Ensure that storage conditions comply with applicable local and national regulations

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<b>National Exposure Standards</b>	No exposure standards have been established for the mixture by the Australian National Occupational Health & Safety Commission (NOHSC) or the Occupational Safety and Health Service (OSH) of the New Zealand Department of Labour. However, over-exposure to some industrial chemicals may result in enhancement of pre-existing adverse medical conditions and/or allergic reactions and should be kept to the least possible levels. The exposure limits for dust not otherwise specified are as follows: Australian National Occupational Health And Safety Commission (NOHSC) exposure standards: Dust TWA 10 mg/m <sup>3</sup> (inspirable fraction) New Zealand Workplace Exposure Standards (OSH): Particulates TWA 10 mg/m <sup>3</sup> (inhalable) TWA 3 mg/m <sup>3</sup> (respirable) TWA (Time Weighted Average): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day week.
<b>Biological Limit Values</b>	No biological limit allocated.
<b>Engineering Controls</b>	Provide sufficient ventilation to keep airborne levels below the exposure limits. Where dusts are generated, particularly in enclosed areas, and natural ventilation is inadequate, a local exhaust ventilation system is required.
<b>Respiratory Protection</b>	Where sufficient ventilation is not available, avoid breathing dust by wearing an AS 1716 approved P1 or P2 particulate filter respirator. Reference should be made to Australian Standards AS/NZS 1715, Selection, Use and maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.
<b>Eye Protection</b>	Safety glasses with side shields or goggles should be worn as described in Australian Standard AS/ANZ 1337 - Eye Protectors for Industrial Applications.
<b>Hand Protection</b>	Wear gloves of impervious material e.g laminated film. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken. Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.
<b>Body Protection</b>	Suitable workwear should be worn to protect personal clothing, e.g. cotton overalls buttoned at neck and wrist. When large quantities are handled the use of plastic aprons and rubber boots is recommended.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Greyish white powder or lumps; hygroscopic (on exposure to air, will gradually absorb water, approximately 15%).
<b>Odour</b>	Not available
<b>Decomposition Temperature</b>	400°C
<b>Melting Point</b>	851°C
<b>Boiling Point</b>	Decomposes
<b>Solubility in Water</b>	71 g/L at 0°C; 220 g/L at 22°C

<b>Solubility in Organic Solvents</b>	Soluble in glycerol; insoluble in alcohol, acetone, and ether (monohydrate).
<b>Specific Gravity</b>	2.53 at 20°C
<b>pH Value</b>	11.5 (1% aqueous solution)
<b>Vapour Pressure</b>	Not volatile
<b>Vapour Density (Air=1)</b>	Not applicable
<b>Flash Point</b>	None
<b>Flammability</b>	Non-combustible material.
<b>Auto-Ignition Temperature</b>	Not applicable
<b>Flammable Limits - Lower</b>	Not applicable
<b>Flammable Limits - Upper</b>	Not applicable
<b>Molecular Weight</b>	105.99 (anhydrous); 124.01 (monohydrate)

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## 10. STABILITY AND REACTIVITY

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<b>Chemical Stability</b>	Stable under normal conditions of handling and storage.
<b>Conditions to Avoid</b>	Dusty conditions.
<b>Incompatible Materials</b>	Oxidising agents and strong acids.
<b>Hazardous Decomposition Products</b>	Thermal decomposition may result in the release of toxic and/or irritating fumes including oxides of sodium, carbon monoxide and carbon dioxide.
<b>Hazardous Reactions</b>	Reaction with water and acids will generate heat. Will react violently with phosphorous pentoxide and sulphuric acid. Ignites and burns fiercely with fluorine. May react explosively with magnesium and red hot aluminium.
<b>Hazardous Polymerization</b>	Will not occur.

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## 11. TOXICOLOGICAL INFORMATION

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<b>Toxicology Information</b>	LD50 (Oral, Rat): 4000 mg/kg LC50 (Inhalation, Rat): 2100-2500 mg/m <sup>3</sup> /2h LC50 (Inhalation, Mouse): 1200 mg/m <sup>3</sup> /2h LD50 (Dermal, Rabbit): 3400 mg/kg SKIN (Rabbit): Moderate irritant EYES (Rabbit): Severe irritant
<b>Inhalation</b>	Irritation of the nose, throat and lungs may occur due to the irritant nature of sodium carbonate. Symptoms may include coughing, sneezing and difficulty breathing.
<b>Ingestion</b>	Ingestion of large amounts may result in cramps, vomiting, diarrhoea and possible circulatory collapse and death.
<b>Skin</b>	Dust or solid can cause mild to moderate irritation. Concentrated solutions can be corrosive, causing severe irritation and burning.
<b>Eye</b>	Moderate to severe irritation. Direct contact with solid or concentrated solution may result in permanent injury to eye unless promptly rinsed from

eye with water.

**Chronic Effects** Repeated or prolonged skin contact may result in dermatitis and/or ulceration of the skin. Prolonged inhalation may lead to perforation of the nasal septum.

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## 12. ECOLOGICAL INFORMATION

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**Ecotoxicity** Not available

**Persistence / Degradability** Not available

**Mobility** Not available

**Bioaccumulative Potential** Not available

**Environment Protection** Do not allow product to enter drains, waterways or sewers.

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## 13. DISPOSAL CONSIDERATIONS

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**Disposal Considerations** The disposal of the spilled or waste material must be done in accordance with applicable local and national regulations.

Product Disposal:  
Product wastes are controlled wastes and should be disposed of in accordance with all applicable local and national regulations. This product can be disposed through a licensed commercial waste collection service. The product should be rendered non-hazardous before being sent to a licensed landfill facility.

Do not dispose directly into the sewerage system. Do not discharge into drains or watercourses or dispose where ground or surface waters may be affected.

Personal protective clothing and equipment as specified in Section 8 of this SDS must be worn during handling and disposal of this product. The ventilation requirements as specified in the same section must also be followed, and the precautions given in Section 7 of this SDS regarding handling must also be followed.

Do not dispose into the sewerage system. Do not discharge into drains or watercourses or dispose where ground or surface waters may be affected.

In New Zealand, the disposal agency or contractor must comply with the New Zealand Hazardous Substances (Disposal) Regulations 2001. Further details regarding disposal can be obtained on the EPA New Zealand website under specific group standards.

Container Disposal:  
The container or packaging must be cleaned and rendered incapable of holding any substance. It can then be disposed of in a manner consistent with that of the substance it contained. In this instance the packaging can be disposed through a commercial waste collection service.

Alternatively, the container or packaging can be recycled if the hazardous residues have been thoroughly cleaned or rendered non-hazardous.

In New Zealand, the packaging (that may or may not hold any residual substance) that is lawfully disposed of by householders or other consumers through a public or commercial waste collection service is a means of compliance with regulations.

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## 14. TRANSPORT INFORMATION

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**Transport Information** Australia:  
Not classified as Dangerous Goods, according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)

New Zealand:  
Not classified as Dangerous Goods for transport according to the NZS 5433:2007 Transport of Dangerous Goods on Land.

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## 15. REGULATORY INFORMATION

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<b>Regulatory Information</b>	Australia: Classified as Hazardous according to criteria of National Occupational Health & Safety Commission (NOHSC), Australia. Not classified as a Scheduled poison according to the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).
<b>Poisons Schedule</b>	Not Scheduled
<b>National and or International Regulatory Information</b>	New Zealand: Classified as Hazardous according to the New Zealand Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001. All components of this product are listed on the New Zealand Inventory of Chemicals (NZIoC) or exempted. HSNO (CCID) name: Sodium carbonate
<b>HSNO Approval Number</b>	HSR003265
<b>Hazard Category</b>	Irritant
<b>AICS (Australia)</b>	All constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).

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## 16. OTHER INFORMATION

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<b>Date of preparation or last revision of MSDS</b>	MSDS Reviewed: November 2011 Supersedes; November 2006
<b>Contact Person/Point</b>	For further information contact Tom Sadler on 1300 884 078 during business hours. In case of emergency call Australia 1800 638 556/ New Zealand 0800 154 666.  IMPORTANT ADVICE: This MSDS summarizes our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including its use in conjunction with other products. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact Ajax Finechem Pty Ltd. Our responsibility for products sold is subject to our standard terms and conditions, a copy of which is sent to our customers and is also available on request.

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End of MSDS

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