



Safety Data Sheet

May 2019

1. Identification of the Substance and Supplier

<i>Product Name:</i>	SODIUM BISULPHATE
<i>Other Names:</i>	Sodium Bisulfate; Sodium Pyrosulfate; Sodium Hydrogen Sulfate; Sodium Acid Sulfate.
<i>Amtrade product description [& code]:</i>	Sodium Bisulphate 25kg, Bag [407097] Sodium Bisulphate (GW) 25kg, Bag [417343]
<i>Recommended Use:</i>	Raw material; Flux for decomposing minerals. Substitute for Sulfuric Acid in dyeing. Disinfectant. Manufacture of: Sodium Hydrosulfide; Sodium Sulfate; Soda alum. Liberating Carbon Dioxide in Carbonic Acid containing baths. Carbonizing wool. Manufacture of: magnesia cements; paper; soap; perfumes; industrial cleaners; metal pickling compounds. Animal feed additive.
<i>Supplier:</i>	Amtrade International Pty Ltd (ABN 49 006 409 936) Level 8 580 St Kilda Road Melbourne VIC 3004 Australia Tel: +61 3 9229 9229 Melbourne +61 2 9805 4200 Sydney Email: library@amtrade.com.au
<i>Emergency Contact:</i>	1800 033 111 (Australia - all hours) +61 3 9663 2130 (Australia - at Sea)

2. Hazards Identification

<i>Hazard classification:</i>	Eye Damage/Irritation: Category 1 Corrosive to Metals: Category 1 PICTOGRAM: CORROSION
<i>GHS Hazardous Chemical (AU):</i>	<input checked="" type="radio"/> Yes <input type="radio"/> No
<i>Signal Word:</i>	DANGER
<i>Hazard Statement:</i>	H318 Causes serious eye damage. H290 May be corrosive to metals. .
<i>Prevention:</i>	P234 Keep only in original container. P260 Do not breathe dusts / mists. P280 Wear eye protection / face protection. P264 Wash hands and skin thoroughly after handling.
<i>Response:</i>	P302+352 IF ON SKIN: Wash with plenty of soap and water. P332+313 If skin irritation occurs: Get medical advice/attention. P305+351+338 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 POISONS CENTER or doctor/physician.
P362+364 Take off contaminated clothing and wash it before use
P390+391 Absorb spillage to prevent material damage. Collect spillage.

Storage: P233 Keep container tightly closed.
P406 Store in a corrosion resistant container / container with an inner liner.

Disposal: P501 Dispose of contents/container to an EPA approved facility.

Other Information: NOT Dangerous Goods Corrosive as the Dry Solid (see Sections 7 & 14).
IF concentrated solutions are formed with water,
handle these solution as Corrosive to Metals Dangerous Goods.
Proper Shipping Name: BISULFATES, AQUEOUS SOLUTION, N.O.S.
UN 2837 Class 8 Hazchem 2R Pack Grp III
Adding small amounts of water to Anhydrous Sodium Bisulfate will release heat and which be may sufficient to boil the water added & eject material.
Not a Scheduled Poison.
Workplace Hazardous Substance. [For information only]
Hazard Category: Irritant [For information only]
Risk of serious damage to eyes. May be corrosive to metals. [For info only]

Pictogram:



3. Composition / Information On Ingredients

<i>Ingredient(s)</i>	<i>Proportion</i>	<i>CAS Number(s)</i>
Sodium Bisulphate	>93% *	7681-38-1
Moisture	<0.4%	7732-18-5

Other Information: * 407097 is >98%

4. First Aid Measures

Inhaled: Remove to fresh air. Seek medical advice if effects persist.

Swallowed: Rinse out the mouth with water. IF large amounts are swallowed, give several glasses of water to dilute. Consider following with Milk of Magnesia (Magnesium Hydroxide solution), beaten eggs or vegetable oil.
Do NOT induce vomiting. Seek medical attention.

On Skin: Flush the affected area with water for at least 15 minutes.
If skin irritation occurs, seek prompt medical attention.

In Eye: Flush with water for at least 15 minutes, lifting eyelids to thoroughly flush.
Seek prompt medical advice if redness or eye irritation persists.

First aid facilities: Eye wash and safety shower immediately available.
Normal washroom facilities, soap, water, nearby.

Advice to doctor: Treat symptomatically. Releases acid with ph <1.5.
May aggravate pre-existing respiratory conditions.

5. Fire Fighting measures

<i>Type of hazard:</i>	Not a combustible material. Will not burn, even under fire conditions.
<i>Fire hazard properties:</i>	Hazardous Decomposition Products: Mists and dusts are acidic. At temperatures >430°C the product will decompose generating Oxides of Sulfur (SO _x) and Sodium Oxide.
<i>Extinguishing media:</i>	Water mist or spray, Foam, Carbon dioxide, Dry agent. It will dissolve in fire water to form a moderate concentration Acid solution. Avoid using water where possible. Knock down vapours with a water spray.
<i>Protective equipment:</i>	Under fire conditions, wear Self Contained Breathing Apparatus.

6. Accidental Release Measures

<i>Emergency procedures:</i>	Spillage: Wear protective clothing. Clean up by sweeping or shovelling up. Put into clean labelled containers for recycling or disposal. Do NOT allow to enter into ground-water, surface water or drains. Avoid dust formation. Dilute final remaining residues, neutralise with a Lime Slurry or a weak alkaline solution, and send to sewer. . IF concentrated solutions are formed with water, manage these solutions as Corrosive to Metals Dangerous Goods. Proper Shipping Name: BISULFATES, AQUEOUS SOLUTION, N.O.S. UN 2837 Class 8 Hazchem 2R Pack Grp III
------------------------------	---

7. Handling and Storage

<i>Precautions for safe handling:</i>	Keep containers tightly closed. Wear protective equipment. Maintain good housekeeping. Provide local exhaust ventilation if needed. Immediately clean up spillages, including minor dust deposits. Avoid the formation of aerosol mists & sprays. Do not breathe. . Adding small amounts of water to Anhydrous Sodium Bisulfate will release heat and which be may sufficient to boil the water added & eject material.
<i>Conditions for safe storage:</i>	Store in a clean, cool, dry, well-ventilated area. . Store in accordance with Workplace Health and Safety Regulations or Occupational Health & Safety Regulations in your State/Territory, or Dangerous Goods (Storage & Handling) Regulations and AS 3780 Storage and Handling of Corrosive Substances. . NOT Dangerous Goods Corrosive as the Solid. . IF a concentrated solution is prepared, handle these solutions as Corrosive to Metals Dangerous Goods, which will be classified (depending on concentration) as: . Proper Shipping Name: BISULFATES, AQUEOUS SOLUTION, N.O.S. UN 2837 Class 8 Hazchem 2R Pack Grp III

8. Exposure Controls / Personal Protection

<i>Exposure standards:</i>	Nuisance Dust 10 mg/m ³ TWA . As this is an Acid dust which may cause Serious Eye Damage. Preferably keep the Dust Levels to <5 mg/m ³ TWA .
----------------------------	--

For comparison:
Sulfuric Acid 1 mg/m³ TWA 3 mg/m³ STEL

Engineering controls: Good local exhaust ventilation is desirable to reduce dust formation.
Ensure the product is kept dry.
Heat will be initially released when mixing with water.

Personal protective equipment: Avoid contact with skin and eyes. Avoid inhaling dusts or aerosol mists.
Wear protective gloves (e.g. Plastic or Rubber, but NOT PVA).
Wear safety glasses with side shields.
Overalls or dust coat are recommended.
Wear a dust respirator meeting AS1715/1716, when dust clouds formed may cause an inhalation hazard and/or ventilation is not adequate.

Always wash hands before smoking, eating, drinking or using the toilet.

9. Physical and Chemical Properties

Appearance (colour, physical form, shape) Off-white granules with no odour.

pH: 1.0 (5% aqueous sol'n)
1.4 (1.2% aqueous sol'n)

Vapour pressure: Not applicable at 25°C

Boiling point/range: Not applicable (has decomposed)

Freezing/melting point: 179-183°C (starts decomposing)

Specific gravity or density: 2.4-2.44 approx.

Bulk density: 1200-1500 kg/m³ (Loose)

Flammability: Not a combustible material. Will not burn, even under fire conditions.

Flash point and method of detecting flash point: Not applicable

Particle size: Not available.

Percent volatile: <0.4% (moisture)

Solubility: Soluble in water (1080 g/L at 20°C).
Decomposed by Ethanol into Sodium Sulphate & Sulfuric Acid.

Decomposition temperature: >183°C (starts decomposing)
>430°C Sulfur Dioxide, Sulfur Trioxide and Sodium Oxide are formed.

Molecular Weight and Formula: MW: 120.06
Formula: NaHSO₄

10. Stability and Reactivity

Chemical stability: Stable in dry, closed containers.
Will absorb moisture from the air (hygroscopic).

Conditions to avoid: Avoid moist conditions. It will form an Acid paste or solution approx. pH 1.
Adding small amounts of water to the Anhydrous Sodium Bisulfate will release heat and which be may sufficient to boil the water added and eject material.

Incompatible materials: Strong Alkalis (Bases). Strong Oxidizers. DO NOT MIX with Liquid Chlorine Bleach, Ammonia cleansers or similar products.

<i>Hazardous decomposition products:</i>	Sulphuric Acid forms in Acid conditions. IF heated >430°C Sulfur Dioxide, Sulfur Trioxide & Sodium Oxide are formed.
<i>Hazardous reactions:</i>	Hazardous Reactions: Moist powder is acidic and may corrode some metals. E.g. Alloys of Aluminium, Copper, Zinc, Magnesium. Granules mixed with small amounts of water will release heat and may boil. Hazardous Polymerisation: Will not occur.

11. Toxicological Information

<i>Ingestion:</i>	May be harmful if swallowed. May cause irritation to the digestive tract. May cause nausea and vomiting. Swallowing small amounts (tablespoonful) is not likely to cause injury. Large amounts may burn the digestive tract.
<i>Inhalation:</i>	May be harmful if inhaled. May cause respiratory irritation. May cause burns if not removed promptly.
<i>Skin:</i>	Dry Skin : May cause skin irritation. May cause a slight rash on dry skin. Damp Skin: Likely to cause skin irritation if not removed promptly. May cause skin burns IF left for long periods.
<i>Eye:</i>	Risk of serious damage to eyes. Causes severe eye irritation and may cause burns to the eyes if not immediately flushed with water.
<i>Chronic effects:</i>	Prolonged skin contact may cause moderate irritation and may cause a burn on damp skin if not flushed with water.
<i>Toxicological data:</i>	Acute Oral Toxicity LD50 (rat): 2800 mg/kg & 2490 mg/kg [IUCRID] Acute Inhal'n Toxicity LC50 (rat): >2.4 mg/L/4hrs Sodium Sulphate [SDS] EYE IRRITATION : Causes burns. Can cause serious eye damage. SKIN IRRITATION: May cause a very slight rash. DRY material is NOT corrosive nor destructive to the skin of NZ rabbits. Concentrated solutions will cause skin irritation. Not listed as a carcinogen by WHO IARC, USA NTP, ACGIH or USA OSHA. GHS CRITERIA [Sodium Bisulfate as 100% - Dry]: ACUTE ORAL TOXICITY : Not classified. ACUTE INHAL'N TOXICITY : Not classified. ACUTE SKIN TOXICITY : Not classified. SKIN CORROSION / IRRITATION : Not classified. SERIOUS EYE DAMAGE / IRRITATION: Category 1 H318 SKIN SENSITISATION : Not classified. RESPIRATORY SENSITISATION : Not classified. GERM CELL MUTAGENICITY : Not classified. CARCINOGENICITY : Not classified. REPRODUCTIVE TOXICITY : Not classified. SPECIFIC TARGET ORGAN TOXICITY - Single & Repeated Exposure: Not classified. ASPIRATION HAZARD : Not Applicable. [ECHA Registered Substances Database]

12. Ecological Information

<i>Ecotoxicity:</i>	This substance will be hazardous to the environment. Avoid contaminating waterways. Water polluting substance due to the Acid pH effects. A 0.05% or greater the solution will be acutely harmful to fish and other water organisms. Sodium Bisulfate will decompose in soil IF in low concentrations. Excessive quantities will also create a harmful Acid soil.
---------------------	---

Acute Daphnia Aquatic Toxicity LC50 (Daphnia Magna 48hrs): 190 mg/L
Acute Bacteria Aquatic Toxicity EC10 (Pseudo.Putida 16hrs): >1000 mg/L
Both from IUCLID.

GHS CRITERIA [Sodium Bisulfate as 100%]:
Aquatic Environment (Acute/Short-Term) Hazard: Not Classified.
Aquatic Environment (Long-Term) Hazard : Not Classified.
[ECHA Registered Substances Database]

13. Disposal Considerations

Disposal methods including packaging: Disposal: In accordance with Local, State & Federal EPA waste regulations. Advise its serious eye damage and corrosive (when damp or wet) nature. This material may be landfilled in an EPA approved facility after being neutralised AND passing the local leachate regulatory requirements.

14. Transport Information

Land: Not classified as dangerous for transport by land (Australian Code for the Transport of Dangerous Goods by Road & Rail)
Sea: Not classified as dangerous for transport by sea (IMDG Code)
Air: Not classified as dangerous for transport by air (ICAO/IATA)
General: NOT an IMDG Code Marine Pollutant.
NOT Dangerous Goods Corrosive as the Dry Solid.
IF a concentrated solution is prepared, handle these solutions as Corrosive to Metals Dangerous Goods, which will be classified (depending on concentration) as:
Proper Shipping Name: BISULFATES, AQUEOUS SOLUTION, N.O.S.
UN 2837 Class 8 Hazchem 2R Pack Grp III

15. Regulatory Information

Poison schedule: ● Not scheduled ○ 2 ○ 4 ○ 5 ○ 6 ○
Workplace hazardous substance: ● Yes ○ No
AICS: ● Yes ○ No
Chemical Schemes All ingredients are on Australian Inventory of Chemical Substances (AICS). Also covered by Aust. Pesticides & Veterinary Medicines Authority (APVMA).

16. Other Information

Prepared / last revised: 14 May 2019
Replaces: AE2I2 SDS (16Aug2018)
Key Changes: Changed SDS Software. Changes in most Sections. But not S4, 9, 13, 14.
Literature references: [ECHA RSD] European Chem. Agency - Registered Substances D'base.
<http://echa.europa.eu/information-on-chemicals/registered-substances>
[ECHA C&LID] European Chem. Agency Classif'n & Labelling Inv. D'base.
<http://echa.europa.eu/information-on-chemicals/cl-inventory-database>

eChemPortal: Provides free public access to information on properties of chemicals by simultaneous searching of reports and datasets by chemical name and number, by chemical property, and by GHS classification.
<https://www.echemportal.org/echemportal/index>

PUBCHEM Open Chemistry Database
<https://www.ncbi.nlm.nih.gov/pccompound>

Australian Hazardous Chemical Information System (HCIS)
<http://hcis.safeworkaustralia.gov.au/HazardousChemical>

Other:

JS190514 BC26BW-AE2I2-Sodium Bisulphate-Amtrade
SDS-10May2019-UP

This document summarises our best knowledge of the health and safety hazard information for the product and how to safely handle and use it in the workplace. Each user should read this document and consider the information in the context of how the product will be handled and used in the workplace, including in conjunction with other products.

Amtrade's responsibility for products sold is subject to our standard terms and conditions, which is provided to our customers and available on request.