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SALES & SERVICES

Safety Data Sheet

1. IDENTIFICATION OF THE PRODUCT AND THE SUPPLIER

1.1 Product identifiers

Product name : SODIUM DITHIONITE

1.2 Other means of identification

Sodium hydrosulphite, sodium hypodisulphite

1.3 Recommended use of the product and restrictions on use

Pulp and paper bleaching, clay bleaching, vat dyeing of fibres and textiles, stripping agent for dyes, laboratory chemical, manufacture of substances

1.4 Details of supplier of the safety data sheet

Company	: AGent Sales & Services Pty Ltd
Street address	: 38 May Holman Drive, Bassendean, Western Australia 6054
Telephone	: (+61 8) 6270 4500
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1.5 Emergency telephone number

Telephone : 1300 883 844

2. HAZARDS IDENTIFICATION

2.1 GHS Classification

Self-heating substances (Category 1)
Acute toxicity, Oral (Category 4)

2.2 GHS Label elements, including precautionary statements

Pictogram :

Signal word : Danger

Hazard statement(s)

H251	Self-heating: may catch fire.
H302	Harmful if swallowed.

Precautionary statement(s)

Prevention

P235+P410	Keep cool. Protect from sunlight
P264	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P280	Wear protective gloves / protective clothing / eye protection / face protection.

Response

P301+P312	IF SWALLOWED: Call a POISON CENTRE or doctor / physician if you feel unwell.
P330	Rinse mouth.

Storage

P407	Maintain air gap between stacks / pallets.

P410	Protect from sunlight.
P420	Store away from other materials.

Disposal

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

2.3 Other hazards

AUH031	Contact with acids liberates toxic gas.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS Number	Classification	Concentration (%)
Sodium dithionite	7775-14-6	Self-heat. 1; Acute Tox. 4; H251, H302	≤ 100

For the full text of the H-Statements mentioned in this section, see Sections 2.2 and 16.

4. FIRST AID MEASURES

4.1 Description of First Aid measures

General advice
Contact the Poisons Information Centre (Phone: Australia 131 126; New Zealand 0800 764 766) or consult a doctor/physician. Show this safety data sheet to the doctor in attendance.

If inhaled
Remove victim from area of exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. If patient finds breathing difficult and develops a bluish discolouration of the skin (which suggests a lack of oxygen in the blood - cyanosis), ensure airways are clear of any obstruction and have a qualified person give oxygen through a face mask. Apply artificial respiration if patient is not breathing. Seek immediate medical advice.

In case of skin contact
Remove contaminated clothing and wash affected areas with soap and plenty of water. Consult a doctor/physician. Launder clothing before reuse.

In case of eye contact
Check for and remove any contact lenses, if easy to do. Immediately rinse thoroughly with plenty of running water for at least 15 minutes, keeping eyelids open. Take care not to rinse contaminated water into the non-affected eye. Seek immediate medical assistance.

If swallowed
Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Seek immediate medical assistance.

4.2 Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in Section 2.2 and/or Section 11.

4.3 Indication of any immediate medical attention and special treatment needed
Treat symptomatically.

4.4 First Aid facilities
Eye wash facilities and safety shower should be available.

5. FIRE FIGHTING MEASURES

5.1 Suitable extinguishing media
Use dry sand or earth to smother fire. If water is the only media available, use in flooding amounts. Use water spray to keep fire-exposed containers cool. Use water with caution and in flooding amounts.

5.2 Special hazards arising from the chemical
May decompose explosively when heated or involved in a fire. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. These may include carbon monoxide, oxides of sulphur, carbon dioxide.

5.3 Special protective equipment and precautions for fire fighters
Wear self-contained breathing apparatus (SCBA) and suitable protective clothing if risk of exposure to products of decomposition.

5.4 Hazchem code
1S

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Wear respiratory protection. Avoid dust formation. Avoid breathing dust, vapours, mist or gas. Ensure adequate ventilation. Work up wind. Evacuate personnel to safe areas. Eliminate all sources of ignition.
For personal protection see Section 8.

6.2 Environmental precautions
Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided. If contamination of sewers or waterways has occurred, advise local emergency services. Observe all local and national regulations.

6.3 Methods and materials for containment and cleaning up
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, according to local regulations (see Section 13). Move container from spill area. Place under an inert atmosphere. Do not get water inside containers. DO NOT return spilled material to original container for re-use.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Keep away from sources of ignition - No smoking. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities
Store in a cool, dry, well ventilated place. Keep containers tightly closed when not in use. Inspect regularly for deficiencies such as damage or leaks. Protect against physical damage. Never allow product to get in contact with water during storage. Do not store near acids. Store away from foodstuffs. Store away from incompatible materials described in Section 10.

This material is classified as a Dangerous Goods Class 4.2 (Flammable Solid) by the criteria of the ADG Code and must be stored and handled in accordance with the relevant regulations.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

8.1 Control parameters

Occupational Exposure Limits

No exposure standard has been established for this product by the Safe Work Australia (SWA). However, the exposure standard for dust not otherwise specified:

Chemical Name	Reference	TWA – Peak Limitation		STEL		Carcinogen Category	Notices
		ppm	mg/m^3	ppm	mg/m^3		
Inspirable dust	ASCC		10			-	-
Respirable dust	ASCC		3				

As published in "*Workplace Exposure Standards for Airborne Contaminants, December 2011"* by SWA.

These Workplace 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 workplace 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.

Biological Limits
None allocated for this product.

8.2 Exposure controls

Appropriate engineering controls
Ensure ventilation is adequate to maintain air concentrations below Exposure Standards. Keep containers closed when not in use. If in the handling and application of this material, safe exposure levels could be exceeded, the use of engineering controls such as local exhaust ventilation must be considered and the results documented. If achieving safe exposure levels does not require engineering controls, then a detailed and documented risk assessment using the relevant Personal

Protective Equipment (PPE) (refer to PPE section below) as a basis must be carried out to determine the minimum PPE requirements.

Personal protective equipment (PPE)
The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods and environmental factors.

Eye/face protection
Safety glasses, splash goggles (AS/NZS 1336 & 1337).

Skin protection
Wear protective gloves (rubber or PVC), long-sleeved protective coveralls and safety footwear appropriate for the risk of exposure (AS 2161 and AS/NZS 2210). Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use. Wash and dry hands.

Respiratory protection
Where risk assessment shows air-purifying respirators are appropriate use a filtering half-face mask when handling this product (DIN EN 149) (AS1715/1716).

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Form : Crystalline solid
	Colour : White to light yellow
Odour:	Sulphur dioxide-like odour
Odour Threshold:	No data available
pH:	7 - 9 @ 50 g/L @20ºC
Melting Point:	No data available
Boiling Point / Range	No data available
Decomposition Temperature:	130ºC
Evaporation Rate:	No data available
Auto-Ignition Temperature:	approx. 190ºC
Flash Point:	No data available
Flammability Limits:	No data available
Relative Density:	2.38 g/cm^3 @ 20ºC
Partition Coefficient:	No data available
Vapour Density (air=1):	No data available
Vapour Pressure:	No data available
% Volatiles:	Nil @ 38ºC
Solubility in water:	182 g/L @ 20ºC

10. STABILITY AND REACTIVITY

10.1 Reactivity
Flammable solid. Contact with acids liberates toxic gas. Reacts violently with oxidising agents. May generate enough heat when damp to ignite nearby combustible materials.

10.2 Chemical stability
Stable under normal conditions of use, storage and temperature.

10.3 Possibility of hazardous reactions
Hazardous polymerisation has not been reported

10.4 Conditions to avoid
Do not allow water to enter container because of violent reaction. Avoid moisture and exposure to high humidity. Heat, sources of ignition and open flame.

10.5 Incompatible materials
Strong oxidising agents, acids, water.

10.6 Hazardous decomposition products
During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. These may include carbon monoxide, oxides of sulphur, carbon dioxide.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

11.1 Information on toxicological effects

Acute toxicity
No data available.

Skin corrosion/irritation
No data available.

Serious eye damage/eye irritation
No data available.

Respiratory or skin sensitisation
No data available.

Germ cell mutagenicity
No data available.

Carcinogenicity
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity
No data available.

Specific target organ toxicity (STOT) - single exposure
No data available.

Specific target organ toxicity (STOT) - repeated exposure
No data available

Aspiration hazard
No data available

Health Effects
No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Eye contact : Exposure to the dust may cause discomfort due to particulate nature. May cause physical irritation to the eyes.

Skin contact : Contact with skin may result in irritation.

Ingestion : Swallowing can result in nausea, vomiting, diarrhoea, and abdominal pain. Extremely large amounts may produce central nervous system stimulation, seizures, hypotension, and cardiovascular collapse.

Inhalation : Material may be irritant to the mucous membranes of the respiratory tract (airways). It is recommended that asthma sufferers do not come into contact with sodium dithionite nor its decomposition products as they can be adversely affected very quickly. Bronchospasm, tachypnoea, and dyspnoea may occur.

11.2 Information on possible routes of exposure
The substance can be absorbed into the body by skin & eye contact, ingestion and by inhalation.

11.3 Additional Information
RTECS: WB4900000

12. ECOGICAL INFORMATION

12.1 Ecotoxicity
Avoid contaminating waterways.

Toxicity to fish:
LC_{50} Leuciscus idus (Golden orfe) : 10 - 100 mg/L - 96 h

Toxicity to daphnia & other aquatic invertebrates
EC_{50} - Daphnia (Water flea) : 10 - 100 mg/L - 48 h

12.2 Persistence and degradability
No data available.

12.3 Bioaccumulative potential
No data available

12.4 Mobility in soil
No data available

12.5 Other adverse effects
Toxic to aquatic life.

13. DISPOSAL CONSIDERATIONS

13.1 Disposal methods and containers
Ensure waste disposal conforms to relevant local, state and federal authority waste disposal regulations. All empty packaging should be disposed of as unused product.

13.3 Special precautions for landfill or incineration
Contact a specialist disposal company or the local waste regulator for advice. Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to an approved waste facility. Processing, use or contamination of this product may change the waste management options. Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable.

14. TRANSPORT INFORMATION

Classified as a Dangerous Goods by the criteria of the ADG Code for transport by road or rail
Classified as a Dangerous Goods by the criteria of the IMDG Code for transport by sea
Classified as a Dangerous Goods by the criteria of the IATA Code for transport by air

14.1 UN number
ADG : 1384 **IMDG :** 1384 **IATA :** 1384

14.2 Proper shipping name
ADG : SODIUM DITHIONITE
IMDG : SODIUM DITHIONITE
IATA : SODIUM DITHIONITE

14.3 Transport hazard class
ADG : 4.2 **IMDG :** 4.2 **IATA :** 4.2

14.4 Packing group
ADG : II **IMDG :** II **IATA :** II

14.5 Environmental hazards
ADG : No **IMDG Marine Pollutant :** No **IATA :** No

14.6 Special precautions for users No data

14.7 Hazchem code
ADG : 1S **IMDG EMS :** F-A, S-J

14.8 Dangerous goods initial emergency response guide (SAA/SNZ HB76:2010) 25

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations

Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP)
None allocated

Carcinogen classification under WHS Regulations 2011, Schedule 10
Not listed

Notification status
AICS On the inventory or in compliance with the inventory.

16. OTHER INFORMATION

Key / legend to abbreviations and acronyms used in the MSDS

ADG	Australian Dangerous Goods
ASCC	Australian Safety and Compensation Council
DEC	Department of Environment and Conservation
IARC	International Agency for Research on Cancer
NOHSC	National Occupational Health and Safety Commission
SUSDP	Standard for the Uniform Scheduling of Drugs and Poisons
Acute Tox.	Acute toxicity
Self-heat.	Self-heating: may catch fire.
TWA	Time weighted average
STEL	Short term exposure level
SWA	Safe Work Australia
Peak Limitations	A ceiling concentration that should not be exceeded over a measurement period, which should be as short as possible, but not exceeding 15 minutes
EC_{50}	Effective concentration that induces a response halfway between the baseline and maximum after a specified time
LD_{50}	Lethal dose 50. The single dose of a substance that causes the death of 50% of an animal population from exposure to the substance by any route other than inhalation
LC_{50}	Lethal concentration that kills 50% of an animal population within a specified time
RTECS	Registry of Toxic Effects of Chemical Substances
g/L	Grams per litre
g/cm^3	Grams per cubic centimetre
mg/m^3	Milligrams per cubic metre
mg/kg	Milligrams per kilogram
pH	Relates to hydrogen ion concentration - this value will relate to a scale of 0 - 14, where 0 is highly acidic and 14 is highly alkaline
WHS	Work Health and Safety

Literature references

"Workplace Exposure Standards for Airborne Contaminants, December 2011" by SWA
Work Health and Safety Regulations 2011

Reason(s) for Issue:

Revised primary SDS
Alignment to GHS requirements

Disclaimer

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