

## Safety Data Sheet

### 1. IDENTIFICATION OF THE PRODUCT AND THE SUPPLIER

#### 1.1 Product identifiers

Product name : SODIUM THIOSULPHATE

#### 1.2 Other means of identification

Sodium thiosulfate, Sodium hyposulfite, Sodium subsulfite

#### 1.3 Recommended use of the product and restrictions on use

Photography(fixing agent to dissolve unchanged silver salts from exposed negatives), chrome tanning, removing chlorine in bleaching and papermaking, extraction of silver from its ores, dechlorination of water, mordant, analytical and laboratory reagent, bleaching, sequestrant in salt (up to 0.1%) and antidote for cyanide poisoning.

#### 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

Fax : (+61 8) 6270 4544

#### 1.4 Emergency telephone number

Telephone : 1300 883 844

### 2. HAZARDS IDENTIFICATION

#### 2.1 GHS Classification

NOT hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)

#### GHS Label elements, including precautionary statements

None

Signal word : None

Hazard statement(s) : None

#### 2.2 Other hazards

None.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS Number	Classification	Concentration (%)
Sodium thiosulphate pentahydrate	10102-17-7		> 99

For the full text of the H-Statements mentioned in this section, see Section 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

Inhalation of any vapours from this product is not likely to present an acute hazard

**In case of skin contact**

Remove contaminated clothing and shoes. Wash affected area with soap and plenty of water. If irritation persists, seek medical attention.

**In case of eye contact**

Immediately flush eyes with plenty of water for 15 minutes, holding eyelids open. If irritation persists, see doctor.

**If swallowed**

Rinse mouth thoroughly with water immediately. Give plenty of water to drink. Do not induce vomiting. Seek medical advice if effects persist.

**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**

Non-flammable solid; however, if material is involved in a fire, use extinguishing media appropriate to surrounding fire conditions.

**5.2 Special hazards arising from the chemical**

Non-combustible solid. Negligible explosion hazard in dust form when exposed to heat or flame. Incompatible with sodium nitrite, potassium nitrate, sodium nitrate, halogens, acids, lead, silver salts, mercury and sources of ignition. Hazardous decomposition products include toxic oxides of sulphur.

**5.3 Special protective equipment and precautions for fire fighters**

Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to products of decomposition.

**5.4 Hazchem code**

Not applicable

**6. ACCIDENTAL RELEASE MEASURES**

**6.1 Personal precautions, protective equipment and emergency procedures**

Wear respiratory protection. Avoid inhalation, contact with skin, eyes and clothing. 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**

Slippery when spilt. Avoid accidents, clean up immediately. Eliminate all sources of ignition. Contain and sweep/shovel up spills with dust binding material or use an industrial vacuum cleaner. Avoid generating dust. Transfer to a suitable, labelled container and dispose of promptly

**7. HANDLING AND STORAGE**

**7.1 Precautions for safe 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/fumes.

**7.2 Conditions for safe storage, including any incompatibilities**

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.

This material is not classified as a Dangerous Goods by the criteria of the ADG.

## 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

### 8.1 Control parameters - Occupational Exposure Limits

No exposure standard has been established for this product by the Australian Safety and Compensation Council (ASCC). However, the exposure standard for dust not otherwise specified :

Chemical Name	Reference	TWA – Peak Limitation		STEL		Carcinogen Category	Notices
		ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>		
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

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Ensure ventilation is adequate to maintain air concentrations below Exposure Standards. 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 with side shields (AS/NZS 1336 & 1337).

#### Skin protection

Wear protective gloves (rubber or PVC), long-sleeved protective clothing 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 P1 or P2 particulate respirator when handling this product (AS/NZS 1715 & 1716).

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Form : Solid, monoclinic crystals Colour : Colourless
<b>Odour:</b>	Odourless
<b>Odour Threshold:</b>	No data available
<b>pH:</b>	7.0 (typical)
<b>Melting Point:</b>	48°C
<b>Boiling Point/Range:</b>	100°C
<b>Decomposition Temperature:</b>	No data available
<b>Evaporation Rate:</b>	No data available
<b>Flash Point:</b>	Not applicable

<b>Flammability Limits:</b>	Not applicable
<b>Specific Gravity:</b>	1.75
<b>Vapour Density (air=1):</b>	No data available
<b>Vapour Pressure:</b>	No data available
<b>% Volatiles:</b>	No data available
<b>Solubility in water:</b>	79g/100mL water @ 4°C

## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

No data available.

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

Reacts with acids to release sulphur dioxide. Sulphur dioxide is detectable by taste at 1 ppm and smell at approximately 4 ppm, providing some warning of unsuitable working conditions.

### 10.4 Conditions to avoid

Keep away from heat and sources of ignition. Protect from moisture. Avoid dust generation. Avoid exposure to direct sunlight.

### 10.5 Incompatible materials

Incompatible with sodium nitrite, potassium nitrate, sodium nitrate, halogens, acids, lead, silver salts, mercury and sources of ignition.

### 10.6 Hazardous decomposition products

Hazardous decomposition products include oxides of sulphur and hydrogen sulphide.

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### Acute toxicity

Main symptoms of prolonged or excessive exposure include; sweating, superficial burning sensation, vomiting, nausea, shortness of breath.

LD<sub>50</sub> Oral, rat is 5000 mg/kg

#### 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 (Hydrochloric acid)

#### 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 :** May cause irritation, redness, pain and conjunctivitis.

**Skin contact :** Contact may cause irritation and/or dermatitis.

**Ingestion :** May cause irritation and digestive discomfort. Symptoms include nausea and diarrhoea.

**Inhalation :** May cause mucous membrane irritation and coughing.

#### 11.2 Information on possible routes of exposure

The substance can be absorbed into the body by inhalation of its dust, ingestion, skin and/or eye contact.

#### 11.3 Additional Information

RTECS: Not available

### 12. ECOLOGICAL INFORMATION

#### 12.1 Ecotoxicity

Avoid contaminating waterways.

##### Toxicity to fish:

No data available

#### 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

No data available.

### 13. DISPOSAL CONSIDERATIONS

#### 13.1 Disposal methods and containers

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.

#### 13.3 Special precautions for landfill or incineration

Contact a specialist disposal company or the local waste regulator for advice.

### 14. TRANSPORT INFORMATION

Not classified as a Dangerous Goods by the criteria of the ADG Code for transport by road or rail

Not classified as a Dangerous Goods by the criteria of the IMDG Code for transport by sea

Not classified as a Dangerous Goods by the criteria of the IATA Code for transport by air

#### 14.1 UN number

**ADG :** Not assigned

**IMDG :** Not assigned

**IATA :** Not assigned

#### 14.2 Proper shipping name

**ADG :** SODIUM THIOSULPHATE

**IMDG :** SODIUM THIOSULPHATE

**IATA :** SODIUM THIOSULPHATE

#### 14.3 Transport hazard class

**ADG :** Not assigned

**IMDG :** Not assigned

**IATA :** Not assigned

#### 14.4 Packing group

**ADG :** Not assigned

**IMDG :** Not assigned

**IATA :** Not assigned

#### 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** : Not assigned                      **IMDG EMS** : Not assigned  
**14.8 Dangerous goods initial emergency response guide (SAA/SNZ HB76:2010)**                      Not assigned

## 15. REGULATORY INFORMATION

### 15.1 Safety, health and environmental regulations

#### **Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP)**

Not listed

#### **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
GHS	Globally Harmonised System of Classification & Labelling of Chemicals
NOHSC	National Occupational Health and Safety Commission
RTECS	Registry of Toxic Effects of Chemical Substances.
SUSDP	Standard for the Uniform Scheduling of Drugs and Poisons
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
LD <sub>50</sub>	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
TD Lo	The lowest dose of a substance known to have produced signs of toxicity
RTECS	Registry of Toxic Effects of Chemical Substances
g/L	Grams per litre
g/cm <sup>3</sup>	Grams per cubic centimetre
mg/m <sup>3</sup>	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

“Registry of Toxic Effects of Chemical Substances”. Ed. D. Sweet, US Dept. of Health & Human Services: Cincinnati, 2012.

### **Reason(s) for Issue:**

Revised primary SDS

Alignment to GHS requirements

### **Disclaimer**

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