# **SAFETY DATA SHEET**

# **AMMONIUM SULPHATE**

Infosafe No.: LPW8J
ISSUED Date: 13/06/2017
ISSUED by: BLUESCOPE STEEL (AIS) PTY LTD

#### 1. IDENTIFICATION

# **Chemical Product and Company Identification**

Approval number: 2890

GHS Product Identifier

AMMONIUM SULPHATE

#### **Company Name**

BLUESCOPE STEEL (AIS) PTY LTD (ABN 19 000 019 625)

#### Address

Five Islands Road Port Kembla NSW 2505 AUSTRALIA

# Telephone/Fax Number

Tel: 02 4275 7522 (24/7 switch board)

Fax: 02 4275 7159

#### **Emergency phone number**

131126 Poison Info

#### Recommended use of the chemical and restrictions on use

Fertiliser

#### **Additional Information**

Ammonium sulphate is a byproduct produced when ammonia is removed from the COG by scrubbing the COG with a sulphuric acid solution to form ammonium sulphate solution. The ammonium sulphate is then crystallised from the sulphate solution at the sulphate plant.

#### 2. HAZARD IDENTIFICATION

#### GHS classification of the substance/mixture

Not classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) including Work, Health and Safety Regulations, Australia.

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

# 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### **Ingredients**

Name	CAS	Proportion
Ammonium sulphate	7783-20-2	99-100 %
Water	7732-18-5	0-0.5 %
Sulfuric Acid	7664-93-9	0-0.5 %
Iron		Trace
Cyanides (inorganic)		Trace

#### 4. FIRST-AID MEASURES

#### Inhalation

If inhaled, remove affected person from contaminated area. Keep at rest until recovered. If symptoms develop and/or persist seek medical attention.

#### Ingestion

Do not induce vomiting. Wash out mouth thoroughly with water. Seek medical attention.

#### Skin

Wash affected area thoroughly with soap and water. If symptoms develop seek medical attention.

#### Eye contact

If in eyes, hold eyelids apart and flush the eyes continuously with running water. Remove contact lenses. Continue flushing for several minutes until all contaminants are washed out completely. If symptoms develop and/or persist seek medical attention.

#### **First Aid Facilities**

Eye wash and normal washroom facilities.

#### **Advice to Doctor**

Treat symptomatically.

#### Other Information

For advice in an emergency, contact Poisons Information Centre (Phone Australia 131 126) or a doctor.

#### 5. FIRE-FIGHTING MEASURES

#### **Suitable Extinguishing Media**

Use appropriate fire extinguisher for surrounding environment.

#### **Hazards from Combustion Products**

Under fire conditions this product may emit toxic and/or irritating fumes, smoke and gases including ammonia, oxides of sulphur and oxides of nitrogen.

## **Specific Hazards Arising From The Chemical**

This product is non combustible.

# **Decomposition Temperature**

> 280 °C

#### **Precautions in connection with Fire**

Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) operated in positive pressure mode. Fight fire from safe location.

#### **6. ACCIDENTAL RELEASE MEASURES**

## **Emergency Procedures**

Increase ventilation. Evacuate all unprotected personnel. Wear sufficient respiratory protection and full protective clothing to prevent exposure. Sweep up material avoiding dust generation or dampen spilled material with water to avoid airborne dust, then transfer material to a suitable container. Wash surfaces well with soap and water. Seal all wastes in labelled containers for subsequent recycling or disposal. Dispose of waste according to the applicable local and national regulations. If large quantities of this material enter waterways contact the EPA or your local Waste Management Authority.

#### 7. HANDLING AND STORAGE

## **Precautions for Safe Handling**

Avoid inhalation of dust, and skin or eye contact. Use only in a well ventilated area. Keep containers sealed when not in use. Prevent the build up of dust in the work atmosphere. Maintain high standards of personal hygiene i.e. Washing hands prior to eating, drinking, smoking or using toilet facilities.

#### Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well-ventilated area, out of direct sunlight and moisture. Store in suitable, labelled containers. Keep containers tightly closed. Store away from incompatible materials. Ensure that storage conditions comply with applicable local and national regulations.

#### Other Information

This product is contained inside pipework, pumps and the centrate tank.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Occupational exposure limit values

No exposure value assigned for this specific material. The available exposure limits for the ingredients are given below.

Sulphuric acid TWA: 1 mg/m³ STEL: 3 mg/m³

Cyanides (as CN) TWA: 5 mg/m<sup>3</sup> Note: Sk

Iron salts, soluble(as Fe)

TWA: 1 mg/m<sup>3</sup>

TWA (Time Weighted Average): The average airborne concentration of a particular substance when calculated over a normal eighthour working day, for a five-day week.

STEL (Short Term Exposure Limit): The average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday.

'Sk' Notice: Absorption through the skin may be a significant source of exposure. The exposure standard is invalidated if such contact should occur.

# **Biological Limit Values**

No biological limit allocated.

## **Appropriate Engineering Controls**

Use with good general ventilation. If dusts are produced, local exhaust ventilation should be used.

#### **Respiratory Protection**

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable dust/particulate filter should be used. 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.

#### **Eye Protection**

Safety glasses with side shields, chemical goggles or full-face shield as appropriate should be used. Final choice of appropriate eye/face protection will vary according to individual circumstances. Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 - Eye Protectors for Industrial Applications.

#### **Hand Protection**

Wear gloves of impervious material such as nitrile, neoprene or PVC. 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.

#### **Body Protection**

Suitable protective workwear, e.g. cotton overalls buttoned at neck and wrist is recommended. Chemical resistant apron is recommended where large quantities are handled.

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

Properties	Description	Properties	Description
Form	Solid	Appearance	Off-white crystals.
Colour	Off-white	Odour	Not available
<b>Decomposition Temperature</b>	> 280 °C	Melting Point	>280 °C
<b>Boiling Point</b>	Not available	Solubility in Water	Soluble
Specific Gravity	1.77 (water = 1)	рН	5.5 (1% aqueous solution)
Vapour Pressure	Not available	Vapour Density (Air=1)	Not available
<b>Evaporation Rate</b>	Not available	Odour Threshold	Not available
Viscosity	Not available	Partition Coefficient: n-octanol/water	Not available
Flash Point	Not applicable	Flammability	Non-combustible solid.
Auto-Ignition Temperature	Not applicable	Explosion Limit - Upper	Not applicable
Explosion Limit - Lower	Not applicable		

#### 10. STABILITY AND REACTIVITY

#### **Chemical Stability**

Stable under normal conditions of handling and storage.

## **Reactivity and Stability**

Reacts with incompatible materials

#### **Conditions to Avoid**

Dusty conditions, extremes of temperature and direct sunlight

#### **Incompatible materials**

Strong oxidizing agents.

#### **Hazardous Decomposition Products**

Thermal decomposition may result in the release of toxic and/or irritating fumes including ammonia, oxides of sulphur and oxides of nitrogen.

#### Possibility of hazardous reactions

Reacts vigorously when mixed with oxidising agents such as chlorates, hypochlorites and nitrites.

#### **Hazardous Polymerization**

Will not occur.

#### 11. TOXICOLOGICAL INFORMATION

#### **Toxicology Information**

Toxicity data for material given below.

## **Acute Toxicity - Oral**

LD50 (Rat): 2840 mg/kg

# Ingestion

Ingestion of this product may irritate the gastric tract causing nausea and vomiting.

#### **Inhalation**

Inhalation of dusts may irritate the respiratory system. Repeated or prolonged exposure to this material may aggravate existing respiratory disorders.

#### Skin

May be irritating to skin. The symptoms may include redness, itching and swelling. Repeated or prolonged exposure to this material may result in skin irritation.

#### Eve

May be irritating to eyes. The symptoms may include redness, itching and tearing.

#### Respiratory sensitisation

Not expected to be a respiratory sensitiser.

#### **Skin Sensitisation**

Not expected to be a skin sensitiser.

#### Germ cell mutagenicity

Not considered to be a mutagenic hazard.

#### Carcinogenicity

Not considered to be a carcinogenic hazard.

Sulphuric acid is listed as a Group 1: Carcinogenic to humans according to International Agency for Research on Cancer (IARC).

#### **Reproductive Toxicity**

Not considered to be toxic to reproduction.

#### **STOT-single exposure**

Not expected to cause toxicity to a specific target organ.

## STOT-repeated exposure

Not expected to cause toxicity to a specific target organ.

#### **Aspiration Hazard**

Not expected to be an aspiration hazard.

#### **Other Information**

Repeated or prolonged exposure may result in skin irritation and aggravate existing respiratory disorders.

# 12. ECOLOGICAL INFORMATION

#### **Ecotoxicity**

No ecological data available for this material.

## Persistence and degradability

Not available

## Mobility

Not available

#### **Bioaccumulative Potential**

Not available

#### **Other Adverse Effects**

Not available

#### **Environmental Protection**

Prevent this material entering waterways, drains and sewers.

#### 13. DISPOSAL CONSIDERATIONS

## **Disposal considerations**

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

#### 14. TRANSPORT INFORMATION

#### **Transport Information**

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

Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods

Regulations for transport by air.

Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

#### **U.N. Number**

None Allocated

#### **UN proper shipping name**

None Allocated

## Transport hazard class(es)

None Allocated

#### **IMDG Marine pollutant**

Nο

#### **Transport in Bulk**

Not available

#### **Special Precautions for User**

Not available

#### 15. REGULATORY INFORMATION

#### **Regulatory information**

Not classified as Hazardous according to the Globally Harmonised System of classification and labelling of chemicals (GHS) including Work, Health and Safety regulations, Australia.

Classified as a Scheduled 7 Poison according to the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

Schedule 7 Poisons should be available only to specialised or authorised users. Special regulations restricting their availability, possession, storage or use may apply.

#### **Poisons Schedule**

**S7** 

#### **16. OTHER INFORMATION**

## Date of preparation or last revision of SDS

SDS amendment: January 2020 9. Physical and chemical properties

SDS reviewed: June 2017 Supersedes: April 2012

#### References

Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice.

Standard for the Uniform Scheduling of Medicines and Poisons.

Australian Code for the Transport of Dangerous Goods by Road & Rail.

Model Work Health and Safety Regulations, Schedule 10: Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.

Workplace exposure standards for airborne contaminants.

Adopted biological exposure determinants, American Conference of Industrial Hygienists (ACGIH).

Globally Harmonised System of classification and labelling of chemicals.

#### **END OF SDS**

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