REVISION 0
DATE: 24 NOV 2025

SAFETY DATA SHEET
SODIUM ISOBUTYL XANTHATE (SIBX)

1.CHEMICAL PRODUCT AND COMPANY DENTIFICATION

Product Name:	Sodium Isobutyl Xanthate
Other Name:	Sodium O-isobutyl dithiocarbonate
Chemical Formula:	C5H9NaOS2
Uses:	Used as flotation agent in mining and nonferrous metal extraction
Supplier:	MPL Products 26 Baddesley Way, Canning Vale, Western Australia Australia- 6155 Ph: +6 1421837661 Email: info@mplproducts.com.au

2. HAZARD IDENTIFICATION

Poisons Schedule (Australia) Not Scheduled

Globally Harmonised System

Hazard Classification	Hazardous according to the criteria of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS)
Hazard Categories	Self-heating Substances and Mixtures Category 2 Acute Toxicity Category 4 Skin Irritation Category 2 Serious Eye Damage/Irritation - Category 2 Toxic To Reproduction - Category 2

Pictograms

SIGNAL WORD: WARNING

Hazard Statements

Self-heating in large quantities; may catch fire.
Harmful if swallowed or in contact with skin.
Causes skin irritation. Causes serious eye irritation.
May cause respiratory irritation.
May cause damage to organs through prolonged or repeated inhalation exposure.
Contact with acids liberates toxic gas

Precautionary Statements

Prevention	Wear protective gloves/protective clothing/eye protection/face protection. Keep cool. Protect from sunlight. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Obtain special instructions before use. Do not breathe dusts or mists.
Response	Call a POISON CENTER or doctor if you feel unwell.

Skin Contact: Wash with plenty of water and soap. If skin irritation occurs: Get medical advice. Take off contaminated clothing.

Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice.

Inhalation: Remove the victim from the scene to fresh air quickly and keep comfortable for breathing. Keep airway open.

Ingestion: Drink enough water, spits, medical treatment.

Storage: Store in a cool, well-ventilated and leak proof warehouse, away from direct sunlight and temperature shall not be more than 30 ° C. No use of sparks generating equipment and tools.

Disposal: Dispose of contents/container in accordance with local / regional / national / international regulations

National Transport Commission (Australia)
Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)
Dangerous Goods Classification: Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Safe Work Australia
National Guide for Classifying Hazardous Chemicals under the Model WHS Regulations
Hazard Classification: Hazardous according to the criteria of Safe Work Australia under Model WHS Regulations

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name: Sodium Isobutyl Xanthate
CAS No.: Cas No. 25306-75-6
Xanthate ≥ 90%
Free alkali (Sodium Hydroxide) ≤ 0.2%
Moisture and Volatile ≤ 4.0%

4.FIRST AID MEASURES

Description of necessary measures according to different routes of exposure:

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a Poison Centre or doctor/physician for advice. Give artificial respiration if victim is not breathing. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Administer oxygen if breathing is difficult.

Ingestion: Rinse mouth, then drink a glass of water. Do not induce vomiting. If vomiting occurs, give further water. Call a Poison Centre or doctor/physician for advice. Never give anything by mouth to an unconscious person.

Eye Contact: Immediately flush eyes with running water for several minutes, holding eyelids open and occasionally lifting the upper and lower lids. Remove contact lenses if present and easy to do. Continue rinsing for at least 15 minutes. Call a Poison Centre or doctor/physician for advice.

Skin Contact: Remove contaminated clothing and shoes immediately. Wash skin and hair with plenty of soap and water. Call a Poison Centre or doctor/physician for advice. If skin irritation or rash occurs, get medical advice/attention. Wash contaminated clothing and shoes before reuse

Advice to Doctor: Treat symptomatically. Ensure that attending medical personnel are aware of identity and nature of the product(s) involved and take precautions to protect themselves.

Emergency personnel should take protection: aid workers should wear a self-sufficient positive pressure type respirator. When necessary to seek medical advice immediately and indicate the special treatment if the patient has lost consciousness, seek medical advice immediately.

5.FIRE FIGHTING MEASURES

General Measures	If safe to do so, move undamaged containers from fire area. Cool containers with flooding quantities of water until well after fire is out. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
Flammability Conditions	Spontaneously Combustible Substance/Self-Heating: Flammable/combustible material. May ignite on contact with air or moisture. *Self-heating in large quantities may catch fire.
Extinguishing Media:	For Xanthates (UN3342), use flooding amounts of water for small and large fires to stop the reaction. Smothering will not work for these materials; they do not need air to burn. *CAUTION: Xanthates (UN3342), when flooded with water, will continue to evolve flammable Carbon disulfide/Carbon disulphide vapours.
Fire and Explosion Hazard:	Risk of violent reaction or explosion. May burn rapidly with flare-burning effect. May react vigorously in contact with water. May re-ignite after fire is extinguished. Containers may explode when heated. *Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

Hazardous Products of Combustion: Fire will produce irritating, toxic and/or corrosive gases, including Carbon disulfide, Hydrogen sulfide.

Special Fire Fighting Instructions: Contain runoff from fire control water - Runoff may pollute waterways. Runoff may create fire or explosion hazard!

Personal Protective Equipment Wear positive pressure self-contained breathing apparatus (SCBA). Wear chemical protective clothing - It may provide little or no thermal protection. Structural firefighters' protective clothing will only provide limited protection.
Flash Point : No Data Available
Lower Explosion Limit: No Data Available
Upper Explosion Limit : No Data Available
Auto Ignition Temperature: No Data Available
Hazchem Code:1Y

6. ACCIDENTAL RELEASE MEASURES

General Response Procedure: Ensure adequate ventilation. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Do not touch or walk through spilled material. Do not breathe dust/vapours and prevent contact with eyes, skin and clothing. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

Clean Up Procedures: For spills of Xanthates (UN3342), Use clean, non-sparking tools to collect material; dissolve in 5 parts water and place it into loosely covered plastic containers for later disposal (see SECTION 13). *CAUTION: Xanthates (UN3342), when flooded with water, will continue to evolve flammable Carbon disulfide/Carbon disulphide vapours.

Containment : Stop leak if you can do it without risk. Prevent entry into waterways, sewers, basements or confined areas. Do not allow material to get wet.

Decontamination: After cleaning, flush away any residual traces with water.

Environmental Precautionary Measures: Spillages and decontamination runoff should be prevented from entering drains and watercourses. Runoff may create fire or explosion hazard! If contamination of sewers or waterways has occurred advise local emergency services.

Evacuation Criteria: Spill or leak area should be isolated immediately. Keep unauthorised personnel away. Keep upwind and to higher ground.

Personal Precautionary Measures: Wear positive pressure self-contained breathing apparatus (SCBA). Fully encapsulating, vapour-protective clothing should be worn for spills and leaks with no fire.

7. HANDLING AND STORAGE

Handling: Safety showers and eyewash facilities should be provided within the immediate work area for emergency use. Ensure adequate ventilation. Obtain special instructions before use - Do not handle until all safety precautions have been read and understood. Avoid dust formation. Do not breathe dust and prevent contact with eyes, skin and clothing.
Do not ingest. Wear protective gloves/protective clothing/eye protection/face protection (see SECTION 8).

Spontaneously Combustible Substance/Self-Heating: Keep away from heat and sources of ignition - No smoking. Take precautionary measures against static discharge.

Storage: Store separately in a cool, dry and well-ventilated place. Protect from sunlight. Keep container tightly closed - check regularly for spills. Avoid exposure to air and water/moisture (hygroscopic). Maintain air gap between stacks/pallets. Keep away from heat and sources of ignition - No smoking. Store away from foodstuffs and other/incompatible materials (see SECTION 10). Store locked up.

Container: Keep in the original container.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General: No specific exposure standards are available for this product.

Component: Sodium hydroxide (CAS No. 1310-73-2): Safe Work Australia Exposure Standard: TWA = 2 mg/m3 Peak limitation.

Decomposition Product: Carbon disulphide (CAS No. 75-15-0): Safe Work Australia Exposure Standard: TWA = 10 ppm (31 mg/m3); Absorption through the skin may be a significant source of exposure (Sk).

Engineering controls: airtight operation, strengthen ventilation

Control parameters: No information Available

Occupational exposure to limit: No Data Available

Biological limit: No information Available

Personal protective equipment: self-priming filter gas mask, anti-static work clothes.

Respiratory protection: suggest self-priming filter gas mask

Hand protection: wear rubber gloves

Eye protection: wear chemical safe protective glasses

Skin and body protection: wear anti-static work clothes

Health measures: after work, take shower and change clothes. Pay attention to personal hygiene and sanitation.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: yellow to green pellets

Odor: Mild sulphurous odor

Boiling Point: No Data available

Vapor Pressure: No Data available

Vapor Density: No Data available

Solubility in Water: Complete

Specific Gravity:08-0.825 1. 17-1. 18(9.75-9.83 lbs.gal)

Freezing Point: No Data available

PH: 11-12

Volatile percent: No Data available

10. STABILITY AND REACTIVITY

General Information: Reacts exothermically on contact with water producing Carbon disulfide. Contact with acids liberates toxic gas

Chemical Stability: Stable under normal conditions of use

Hazardous Polymerisation: Will not occur

Hazardous Composition Products: Fire/decomposition will produce irritating, toxic and/or corrosive gases, including Carbon disulfide, Hydrogen sulfide

Incompatibility: Strong oxidizers can cause fire or explosions. Acids will accelerate the hydrolysis of xanthates. Xanthates are not compatible with copper or its alloys (i.e.bronze.brass.etc.).

11. TOXICOLOGICAL INFORMATION

GENERAL INFORMATION

- Acute toxicity: Harmful if swallowed and in contact with skin. Xanthates are metabolised in humans and animals to Carbon disulfide. Decomposition Product: Carbon disulfide (CAS No. 75-15-0) is Harmful if inhaled.
- Skin corrosion/irritation: Causes skin irritation.
- Eye damage/irritation: Causes serious eye irritation.
- Respiratory/skin sensitisation: May cause an allergic skin reaction. No information available on the product itself.
- Germ cell mutagenicity: No information available on the product itself.
- Carcinogenicity: No information available.
- Reproductive toxicity: Suspected of damaging fertility & Suspected of damaging the unborn child. No information available on the product itself.
- STOT (single exposure): May cause respiratory irritation.
- STOT (repeated exposure): May cause damage to organs through prolonged or repeated exposure through inhalation. No information available on the product itself.
- Aspiration toxicity: No information available.

Information on likely routes of exposure:

- Ingestion: Harmful if swallowed. May cause nausea, vomiting, diarrhoea, abdominal pain, convulsions and loss of consciousness; adverse effects on the central nervous system (CNS), liver and kidneys. Death can occur if ingested in large quantities.
- Eye contact: Causes serious eye irritation.
- Skin contact: Harmful in contact with skin. May cause an allergic skin reaction. Will liberate Carbon disulfide in contact with moist skin, which can be absorbed through the skin.
- Inhalation: May cause respiratory irritation. High concentrations can produce central nervous system depression, leading to loss of co-ordination, impaired judgement and unconsciousness.
Chronic effects: May cause damage to organs through prolonged or repeated exposure.

Acute toxicity (Oral):
Component: Sodium isobutyl xanthate (CAS No. 25306-75-6):
- LD50, Rats: 500 mg/kg bw.

12. ECOLOGICAL INFORMATION

Ecological toxicity: No information Available
Persistence and Degradability: No information Available
Bioaccumulation Potential: No information Available
Mobility: No information Available
Environmental Impact: special attention should be given to water bodies

13. DISPOSAL CONSIDERATIONS

General Information: Dispose of contents/container through a licensed waste contractor and in accordance with local/regional/national regulations.
Special Precautions for Land Fill: No information Available

14. TRANSPORT INFORMATION

Land Transport (Australia)
ADG Code

Proper Shipping Name	XANTHATES
Class	4.2 Flammable Solids - Substances liable to spontaneous combustion
Subsidiary Risk(s)	No Data Available
EPG	25 Spontaneously Combustible Substances (Air And/Or Water Reactive)
UN Number	3342
Hazchem	1Y
Pack Group	III
Special Provision	No Data Available

Sea Transport

IMDG Code

Proper Shipping Name	XANTHATES
Class	4.2 Flammable Solids - Substances liable to spontaneous combustion
Subsidiary Risk(s)	No Data Available
UN Number	3342
Hazchem	1Y
Pack Group	III
Special Provision	No Data Available
EMS	F-A, S-J
Marine Pollutant	No

Air Transport

IATA DGR

Proper Shipping Name	XANTHATES
Class	4.2 Flammable Solids - Substances liable to spontaneous combustion
Subsidiary Risk(s)	No Data Available
UN Number	3342
Hazchem	1Y
Pack Group	III
Special Provision	No Data Available

National Transport Commission (Australia)
Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

Dangerous Goods Classification: Dangerous Goods according to the criteria of the Australian Code for the Transport of Dangerous Goods by Road & Rail (ADG Code)

15. REGULATORY INFORMATION

General Information: No Data Available
Poisons Schedule (Aust): Not Scheduled
Environmental Protection Authority (New Zealand)
Hazardous Substances and New Organisms Amendment Act 2015
Approval Code: Not Assessed

National/Regional Inventories
Australia (AIIC): Listed
China (IECSC): Not Determined
New Zealand (NZIoC): Listed

16. OTHER INFORMATION

This SDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since MPL PRODUCTS cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.