

Safety Data Sheet: Sodium Butyl Xanthate

1. Identification

Product	Sodium Butyl Xanthate; CAS 141-33-3; EC 205-481-2
Use	Industrial sulfide and sulfidized oxide mineral flotation; professional use.
Company	Hainan Zhongxin Chemical Co., Ltd. (ZXCHEM)
Address	Room 1001, Building A, Caohejing Center, No. 1520 Gumei Road, Xuhui District, Shanghai, China
Telephone / email	+86-21-54265599 / sales@zxchem.com.cn
Emergency contact	ZXCHEM office number above, office hours, China time (UTC+8). For urgent medical assistance contact local emergency services.
Scope	Reference safety information for Sodium Butyl Xanthate. The reference composition, concentration and supply-grade differences are described in Section 3. This document does not certify the composition or transport status of a specific delivered batch or a different formulation.

2. Hazards Identification

Classification	Self-heating Category 2; acute oral and dermal toxicity Category 4; skin irritation Category 2; eye irritation Category 2A; respiratory irritation (STOT single exposure Category 3).
Signal word / symbols	Warning; GHS02, GHS07
Hazard statements	H252: self-heating in large quantities; may catch fire. H302 + H312: harmful if swallowed or in contact with skin. H315: skin irritation. H319: serious eye irritation. H335: respiratory irritation.
Prevention	Use adequate ventilation; avoid inhaling dust. Prevent skin and eye contact. Wear suitable chemical-resistant gloves and eye protection. Wash after handling; keep food and drink out of the work area.
Response	After exposure, stop work and seek medical advice. For severe exposure obtain urgent medical care. Rinse contaminated skin or eyes with water; move an inhalation casualty to fresh air.
Environment	Prevent uncontrolled release to drains, soil or surface water. Collect spills for appropriate disposal.



3. Composition / Information on Ingredients

Reference ingredient	REFERENCE ONLY: Sodium Butyl Xanthate, CAS 141-33-3, 90%; sodium hydroxide, CAS 1310-73-2, 1.5%; other components to 100%. ZXCHEM supply TDS: active ≥90.0%, free alkali ≤0.2%, moisture/volatile matter ≤4.0%; no full impurity assay is asserted.
Supply grade	Xanthate purity ≥90.0%
Applicability	The cited concentration or purity describes the reference material. It is not a certificate of analysis for the delivered batch; different solvents or dilutions require the matching supplier safety document.

4. First-Aid Measures

General	Protect the rescuer from exposure and show the product information to medical personnel. Obtain medical advice if symptoms occur or exposure is significant.
Inhalation	Move to fresh air and keep the person comfortable. Seek medical care for breathing difficulty or persistent symptoms. Avoid exposing rescuers to dust.
Skin	Remove contaminated clothing and rinse skin thoroughly with water. Seek medical advice for persistent irritation.
Eyes	Rinse gently with clean water for at least 15 minutes. Remove contact lenses when easy and continue rinsing. Seek medical advice if irritation persists.
Ingestion	Rinse the mouth. Do not induce vomiting. Give nothing by mouth to an unconscious person. Obtain medical advice.
Effects / treatment	Exposure can irritate skin, eyes and the respiratory tract. Swallowing is harmful; decomposition vapours including carbon disulfide can affect the nervous system. Seek medical assistance after significant exposure. Treatment is symptomatic and directed by a clinician.

5. Fire-Fighting Measures

Extinguishing media	Selected SBX reference permits coarse or fine water spray, normal foam, carbon dioxide or dry chemical powder. Isolate ignition sources; responders need suitable protective clothing and SCBA. Heating can cause decomposition and container rupture.
Hazards	Carbon disulfide and other hazardous sulfur-containing gases may be released during decomposition. Control dust, heat, moisture and acid contact.
Protection	Firefighters require suitable protective clothing and self-contained breathing equipment. Prevent contaminated firefighting water entering drains.

6. Accidental Release Measures

Personal precautions	Isolate the spill and use trained responders, suitable PPE and adequate ventilation. Approach from upwind; protect from moisture and ignition.
Environment	Keep material and runoff out of drains, waterways and soil. Report significant environmental contamination.
Recovery	Avoid dust and dry sweeping. Use suitably rated collection equipment and compatible labelled waste containers. Do not wet bulk spills or residues; arrange licensed disposal.
Response scope	Only trained personnel should address self-heating, vapour release or contaminated bulk material.

7. Handling and Storage

Handling	Use controlled transfer and effective ventilation. Avoid generating dust and prevent contamination of the work area.
Storage	Store tightly sealed in a cool, dry, well-ventilated area away from water, acids, oxidizers, heat and ignition sources. Maintain air gaps between stacks and control stock age. Keep moisture-resistant liners intact.
Incompatibilities	Acids, strong oxidizers, moisture and incompatible copper or copper-alloy equipment.
Specific use	Evaluate compatibility and appropriate operating conditions in the complete formulation before industrial use.

8. Exposure Controls / Personal Protection

Exposure limits	The dated SBX reference lists sodium hydroxide peak 2 mg/m ³ , carbon disulfide TWA 10 ppm with skin notation and generic dust TWA 10 mg/m ³ . Use current local workplace limits.
Engineering controls	Use local extraction where dust can be generated. Maintain accessible eyewash and emergency washing facilities.
Personal protection	Wear chemical-resistant gloves selected for the task, suitable protective clothing and splash goggles. Add face protection for splash-prone tasks.
Respiratory protection	Use a properly selected respirator under a respiratory-protection program where engineering controls do not adequately limit airborne exposure.
Hygiene	Wash after handling, remove contaminated clothing promptly and do not eat, drink or smoke in the work area.

9. Physical and Chemical Properties

Appearance	Pale yellow or khaki powder or pellets
Formula / molecular weight	C ₅ H ₉ NaOS ₂ / 172.24 g/mol
Physical state, reference	Powder or pellets
Water solubility	Soluble; prepare solutions under controlled ventilation
Component formula	C ₅ H ₉ NaOS ₂
Component molecular weight	172.24 g/mol
Other properties	Product-specific values for odor threshold, vapor pressure, partition coefficient, autoignition temperature and viscosity are not supplied by the selected reference set. No values are inferred.

10. Stability and Reactivity

Stability	Stable only under appropriate dry, cool storage conditions; moisture and heat can accelerate degradation.
Hazardous reactions	Moisture and decomposition can release toxic and flammable vapours. Avoid uncontrolled solution preparation and wetting of bulk stocks.
Conditions to avoid	Heat, ignition, moist air, acid contact and tightly packed bulk stacks without adequate air gaps.
Incompatibilities	Acids, oxidizing materials and moisture.
Decomposition	Carbon disulfide and other hazardous sulfur-containing gases may be released during decomposition. Control dust, heat, moisture and acid contact.

11. Toxicological Information

Exposure effects	Exposure can irritate skin, eyes and the respiratory tract. Swallowing is harmful; decomposition vapours including carbon disulfide can affect the nervous system. Seek medical assistance after significant exposure.
Reference classification	Self-heating Category 2; acute oral and dermal toxicity Category 4; skin irritation Category 2; eye irritation Category 2A; respiratory irritation (STOT single exposure Category 3).
Toxicological data	Reference oral rat LD ₅₀ is 500–2,000 mg/kg. Skin and eye irritation and respiratory effects are identified. Detailed chronic-effect results are not provided.

12. Ecological Information

Environmental effects	Prevent waterway contamination. The selected SBX SDS gives no quantitative aquatic toxicity, biodegradation, mobility or bioaccumulation data; absence of data is not evidence of safety.
Controls	Prevent uncontrolled release, collect spills and dispose of contaminated material through an authorized route.
Assessment	No product-specific PBT/vPvB assessment is claimed. Absence of data does not establish absence of environmental effects.

13. Disposal Considerations

Product	Collect surplus product and contaminated cleanup material for disposal by an authorized chemical-waste contractor in accordance with local requirements.
Packaging	Containers may retain product residues. Do not reuse contaminated packaging without an approved cleaning process; use an authorized disposal route.

14. Transport Information

Classification	Class 4.2 — Self-heating substances
UN number	UN 3342
Shipping name	Xanthates
Class / packing group	Commercial reference: UN 3342, Xanthates, Class 4.2, packing group III. SBX reference covers ADG, IMDG and IATA.
Transport precautions	Protect packaging and closures from damage, secure loads and prevent releases. This reference is not a shipping declaration for a specific consignment.

15. Regulatory Information

Identity	Sodium Butyl Xanthate; CAS 141-33-3; EC 205-481-2
HS reference	293020; reference heading rather than a destination customs ruling.
Compliance	Apply applicable workplace, environmental and transport rules. A raw-material listing does not establish authorization for a finished disinfectant or biocidal product.
Assessment	No ZXCHEM-specific chemical safety assessment or destination registration is asserted.

16. Other Information

Hazard meanings	H252: self-heating in large quantities; may catch fire. H302 + H312: harmful if swallowed or in contact with skin. H315: skin irritation. H319: serious eye irritation. H335: respiratory irritation.
Limitations	Prepared as reference safety information for the identified material. It is not a batch analytical certificate or safety assessment of a different solvent-containing formulation.
Revision	2026.2; prepared 2026-10-06. Customer-document branding and title corrected; technical safety data retained.
Document scope	Reference safety information for the material and grade described in Sections 1 and 3. Different concentrations, solvents or formulations require the applicable safety information. This is not a batch analytical certificate.

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