

Safety Data Sheet: Borneol

1. Identification

Product	Borneol; CAS 507-70-0; EC 208-080-0
Use	Professional terpene, aroma and chemical formulation development.
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 Borneol. 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	Flammable solid Category 2; acute oral toxicity Category 4.
Signal word / symbols	Warning; GHS02, GHS07
Hazard statements	H228: flammable solid. H302: harmful if swallowed.
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	Borneol, CAS 507-70-0, EC 208-080-0. The selected solid reference contains >70% borneol and approximately 20% isoborneol. These reference fractions are not asserted for the commercial ≥55% supply grade.
Supply grade	Borneol content ≥55%
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	Harmful if swallowed. Dust and direct contact require controlled handling; prevent ignition and unnecessary exposure. Treatment is symptomatic and directed by a clinician.

5. Fire-Fighting Measures

Extinguishing media	Use dry chemical, carbon dioxide, foam or water spray suited to the incident. Avoid a strong water jet and control reignition.
Hazards	Combustion may release carbon oxides and hazardous smoke. Heated containers can rupture.
Protection	Firefighters require suitable protective clothing and self-contained breathing equipment. Prevent contaminated firefighting water entering drains.

6. Accidental Release Measures

Personnel	Isolate the spill and provide ventilation. Use chemical-resistant gloves and eye protection; avoid contact and dust exposure.
Environment	Contain the release and protect drains and waterways. Report significant environmental contamination to the responsible authority.
Cleanup	Collect spilled solid without raising dust into closed labelled containers.

7. Handling and Storage

Handling	Use controlled transfer and effective ventilation. Avoid generating dust and prevent contamination of the work area.
Storage	Keep containers tightly closed in a cool, dry, well-ventilated place. Protect from heat, sparks, open flames and direct sunlight; segregate from strong oxidizing agents.
Incompatibilities	Strong oxidizing agents; heat, sparks and open flames.
Specific use	Evaluate compatibility and appropriate operating conditions in the complete formulation before industrial use.

8. Exposure Controls / Personal Protection

Exposure limits	No ingredient-specific occupational exposure limit is supplied by the selected reference. Use effective dust control and apply local requirements.
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	White crystalline powder or flakes
Formula / molecular weight	C10H18O / 154.25 g/mol
Physical state	Crystalline solid
Water solubility, reference	Insoluble
Melting point, reference	201°C
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	Handle and store under the recommended conditions. Prevent contamination and unnecessary heating.
Incompatibilities	Strong oxidizing agents; heat, sparks and open flames.
Decomposition	Combustion may release carbon oxides and hazardous smoke. Heated containers can rupture.

11. Toxicological Information

Exposure effects	Harmful if swallowed. Dust and direct contact require controlled handling; prevent ignition and unnecessary exposure.
Reference classification	Flammable solid Category 2; acute oral toxicity Category 4.
Data limits	The reference reports oral rat LD50 500 mg/kg and oral mouse LD50 1,059 mg/kg. Other numerical reproductive, sensitization and chronic endpoints are not established here.

12. Ecological Information

Environmental effects	The reference provides no numerical fish, crustacean or algal toxicity endpoints. Prevent releases to drains, soil and surface water.
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 4.1 — Flammable solid
UN number	UN 1312
Shipping name	BORNEOL
Class / packing group	DOT / IMDG / IATA: Class 4.1, packing group III. This describes the borneol reference and is not a consignment declaration.
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	Borneol; CAS 507-70-0; EC 208-080-0
HS reference	290619; 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 food, flavour or other formulation.
Assessment	No ZXCHEM-specific chemical safety assessment or destination registration is asserted.

16. Other Information

Hazard meanings	H228: flammable solid. H302: harmful if swallowed.
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	2026.1; 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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