

Safety Data Sheet: Isophorone

1. Identification

Product	Isophorone; CAS 78-59-1; EC 201-126-0
Use	High-boiling cyclic ketone solvent and synthesis intermediate for selected industrial formulations.
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 Isophorone. 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	Acute oral and dermal toxicity Category 4; eye irritation Category 2; respiratory irritation Category 3; carcinogenicity Category 2; flammable liquid Category 4 in the selected US reference.
Signal word / symbols	Warning; GHS07, GHS08
Hazard statements	H227: combustible liquid. H302/H312: harmful if swallowed or in contact with skin. H319/H335: eye and respiratory irritation. H351: suspected of causing cancer.
Prevention	Use adequate ventilation; avoid inhaling mist. 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	Isophorone, CAS 78-59-1, EC 201-126-0. ZXCHEM assay ≥99%; no unverified impurity composition is assigned.
Supply grade	Assay ≥99%
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 mist.
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	Direct contact or inhalation can cause the effects stated in the hazard section; seek medical advice after significant exposure. Treatment is symptomatic and directed by a clinician.

5. Fire-Fighting Measures

Extinguishing media	Use water spray, foam, dry chemical or carbon dioxide suited to the surrounding fire.
Hazards	Carbon monoxide and carbon dioxide during fire.
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 mist exposure.
Environment	Contain the release and protect drains and waterways. Report significant environmental contamination to the responsible authority.
Cleanup	Stop the leak if safe. Absorb liquid with a compatible inert material and collect in closed labelled containers. Do not wash into drains.

7. Handling and Storage

Handling	Use closed transfer and effective local ventilation. Wear compatible chemical gloves, splash goggles and protective clothing. Control skin exposure and inhalation; provide suitable fire precautions.
Storage	Keep sealed at 0–30°C in a cool, ventilated area protected from sunlight and ignition sources. Separate from oxidizers, acids and bases.
Incompatibilities	Strong oxidizers, strong acids and strong bases.

8. Exposure Controls / Personal Protection

Engineering controls	Use effective local ventilation and closed transfers; control dust or vapour at its source.
Hands and eyes	Use closed transfer and effective local ventilation. Wear compatible chemical gloves, splash goggles and protective clothing. Control skin exposure and inhalation; provide suitable fire precautions.
Respiratory protection	Use a properly assessed respirator if engineering controls cannot maintain suitable exposure conditions.
Hygiene	Wash hands after handling; keep eyewash facilities available and exclude food and drink from work areas.

9. Physical and Chemical Properties

Appearance	Colourless liquid
Formula / molecular weight	C ₉ H ₁₄ O / 138.21 g/mol
Appearance, supply	Colourless liquid
Grade, supply	Assay ≥99%
Flash point, reference	84°C; method not specified in the reference
Water solubility, reference	12 g/L at 20°C; limited solubility
Other properties	Additional physicochemical properties beyond the stated values are not established for the supply grade. No unstated values are inferred.

10. Stability and Reactivity

Stability	Handle and store under the recommended conditions. Prevent contamination and unnecessary heating.
Incompatibilities	Strong oxidizers, strong acids and strong bases.
Decomposition	Carbon monoxide and carbon dioxide during fire.

11. Toxicological Information

Exposure effects	Direct contact or inhalation can cause the effects stated in the hazard section; seek medical advice after significant exposure.
Reference classification	Acute oral and dermal toxicity Category 4; eye irritation Category 2; respiratory irritation Category 3; carcinogenicity Category 2; flammable liquid Category 4 in the selected US reference.
Toxicological data	Reference classification includes suspected carcinogenicity, harmful oral and dermal exposure and irritation. Apply exposure controls; no delivered-batch toxicity certification is implied.

12. Ecological Information

Environmental effects	Prevent discharge to soil, drains and receiving water. Retain cleanup waste; the reference does not establish complete environmental fate data for the supplied grade.
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	Non-dangerous goods (IMDG/IATA)
UN number	Not assigned
Shipping name	Not regulated as dangerous goods
Class / packing group	IMDG, IATA and TDG: not regulated as dangerous goods in the reference. US DOT bulk shipments may be regulated as combustible liquid, NA 1993, packing group III; mode-specific rules apply.
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	Isophorone; CAS 78-59-1; EC 201-126-0
HS reference	291429; reference heading rather than a destination customs ruling.
Compliance	Apply applicable workplace, environmental and transport rules. A raw-material listing does not establish finished-product authorization.
Assessment	No ZXCHEM-specific chemical safety assessment or destination registration is asserted.

16. Other Information

Hazard meanings	H227: combustible liquid. H302/H312: harmful if swallowed or in contact with skin. H319/H335: eye and respiratory irritation. H351: suspected of causing cancer.
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.

Revision: 2026.2 | Revision date: 2026-10-06