

Safety Data Sheet: Vinyl Toluene

1. Identification

Product	Vinyl Toluene; CAS 25013-15-4; EC 246-562-2
Use	Professional ingredient and 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 Vinyl Toluene. 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 liquid Category 3; acute inhalation toxicity Category 4; skin irritation Category 2; eye irritation Category 2A; respiratory target-organ effects Category 3; aspiration hazard Category 1; acute aquatic toxicity Category 2.
Signal word / symbols	Danger; GHS02, GHS07, GHS08
Hazard statements	H226: flammable liquid and vapour. H332: harmful by inhalation. H315/H319: skin and eye irritation. H335: respiratory irritation. H304: potentially fatal aspiration following swallowing. H401: aquatic toxicity.
Prevention	Use effective local exhaust ventilation, ignition-controlled equipment and grounding/bonding during transfer. Wear chemical-resistant gloves, splash goggles and protective clothing. Avoid vapour inhalation and aerosol generation; use suitable respiratory protection where the exposure assessment requires it.
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.
Aspiration response	If swallowed: do not induce vomiting. Immediately obtain emergency medical assistance or contact a poison centre.



3. Composition / Information on Ingredients

Reference ingredient	Vinyl toluene isomer mixture, CAS 25013-15-4, EC 246-562-2; supply assay ≥99.5%, with TBC inhibitor specified at 30–80 ppm. The selected substance reference is an inhibited methylstyrene mixture. No unverified commercial isomer ratio or other additive fraction is asserted.
Supply grade	Assay ≥99.5%
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. Immediately call a poison centre or obtain emergency medical assistance because aspiration can damage the lungs. Never give anything by mouth to an unconscious person.
Effects / treatment	Vapour can cause harmful inhalation exposure and respiratory irritation. Contact irritates skin and eyes. Swallowing creates an aspiration hazard: do not induce vomiting and obtain urgent medical assistance. Treatment is symptomatic and directed by a clinician.

5. Fire-Fighting Measures

Extinguishing media	Use alcohol-resistant foam, water spray, dry chemical or carbon dioxide. Cool exposed containers with water spray; firefighters require self-contained respiratory protection. Prevent vapour ignition and retain contaminated firewater.
Hazards	Heating, inhibitor depletion or contamination can trigger hazardous polymerization. Combustion can release carbon oxides and irritating fumes.
Protection	Firefighters require suitable protective clothing and self-contained breathing equipment. Prevent contaminated firefighting water entering drains.

6. Accidental Release Measures

Personal protection	Use effective local exhaust ventilation, ignition-controlled equipment and grounding/bonding during transfer. Wear chemical-resistant gloves, splash goggles and protective clothing. Avoid vapour inhalation and aerosol generation; use suitable respiratory protection where the exposure assessment requires it.
Containment	Contain with compatible inert absorbent and collect in labelled closed waste containers. Prevent splashes and aerosol formation.
Environment	Prevent discharge to drains, soil and waterways. Arrange an approved waste-disposal route.

7. Handling and Storage

Handling	Use effective local exhaust ventilation, ignition-controlled equipment and grounding/bonding during transfer. Wear chemical-resistant gloves, splash goggles and protective clothing. Avoid vapour inhalation and aerosol generation; use suitable respiratory protection where the exposure assessment requires it.
Storage	Store tightly closed in a cool, well-ventilated area, away from heat, sparks and open flames. Follow the inhibited-monomer storage protocol, including appropriate inhibitor and oxygen conditions. Segregate from oxidizers and polymerization initiators or catalysts.
Incompatibilities	Strong oxidizing agents, radical initiators and polymerization catalysts; heat and inappropriate inhibitor/oxygen conditions.

8. Exposure Controls / Personal Protection

Exposure limits	The selected historical reference lists TWA 50 ppm and STEL 100 ppm, with an additional TWA 100 ppm entry under a different workplace framework. Use current applicable local requirements and effective vapour control.
Engineering controls	Use local extraction where mist 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	Colourless, transparent liquid
Formula / molecular weight	C ₉ H ₁₀ / 118.18 g/mol
Physical state	Colourless liquid
Flash point, supply typical	53°C, closed cup
Boiling range, supply typical	170–172°C
Density at 20°C, supply	0.897–0.899 g/cm ³
Explosion limits, reference	1.1–5.2% by volume
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, radical initiators and polymerization catalysts; heat and inappropriate inhibitor/oxygen conditions.
Decomposition	Heating, inhibitor depletion or contamination can trigger hazardous polymerization. Combustion can release carbon oxides and irritating fumes.

11. Toxicological Information

Exposure effects	Vapour can cause harmful inhalation exposure and respiratory irritation. Contact irritates skin and eyes. Swallowing creates an aspiration hazard: do not induce vomiting and obtain urgent medical assistance.
Reference classification	Flammable liquid Category 3; acute inhalation toxicity Category 4; skin irritation Category 2; eye irritation Category 2A; respiratory target-organ effects Category 3; aspiration hazard Category 1; acute aquatic toxicity Category 2.
Data limits	Selected reference oral rat LD ₅₀ 3,275 mg/kg, inhalation rat LC ₅₀ 16.891 mg/L over four hours, and dermal rabbit LD ₅₀ >4,400 mg/kg. Aspiration, inhalation and irritation hazards require exposure prevention; these values are reference endpoints, not batch results.

12. Ecological Information

Environmental effects	Selected reference fish LC50 5.2 mg/L over 96 hours and water-flea EC50 1.3 mg/L over 48 hours. Prevent release to waterways and drains; no environmental safety of a finished formulation is inferred.
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 3 — Flammable liquid
UN number	UN 2618
Shipping name	VINYLTOLUENES, STABILIZED
Class / packing group	DOT / IMDG / IATA: UN 2618, Class 3, packing group III for the matched stabilized monomer reference. Maintain the necessary inhibitor conditions; the transport reference 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	Vinyl Toluene; CAS 25013-15-4; EC 246-562-2
HS reference	290290; 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 formulation.
Assessment	No ZXCHEM-specific chemical safety assessment or destination registration is asserted.

16. Other Information

Hazard meanings	H226: flammable liquid and vapour. H332: harmful by inhalation. H315/H319: skin and eye irritation. H335: respiratory irritation. H304: potentially fatal aspiration following swallowing. H401: aquatic toxicity.
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 2026-10-07. 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: 2026.1 | Revision date: 2026-10-07