

Safety Data Sheet (MSDS)

(According to GB/T 16483, GB/T 17519, and GHS Standards)

SECTION 1: Identification

1.1 Product Identifiers

- Product Name: Ethanol (Methyl Ethanol)
- Product Number:ME-20260325
- Brand:TECHPURE
- CAS-No.:74-93-1
- Synonyms: Ethyl Alcohol; Grain Alcohol

1.2 Details of the supplier of the safety data sheet

- Company : NEWAY SINOPHC TECH. LIMITED
- RM. 204, BUILDING 3, NO. 188, AONA RD., CHINA (SHANGHAI)PILOT FREE TRADE ZONE.
- Telephone : +86-021-50350029
- Fax : +86-021-50350029

1.3 Emergency telephone

Emergency Phone # : +86-021-50350029
(CHEMTREC)

1.4 Uses & Restrictions

- Identified Uses: Industrial solvent, chemical synthesis intermediate, laboratory reagent, disinfectant.
- Uses Advised Against: Unauthorized food use (industrial grade), unventilated enclosed space use.

SECTION 2: Hazards Identification

2.1 GHS Classification

- Flammable liquids (Category 2)
- Acute toxicity - Inhalation (Category 3)
- Skin irritation (Category 2)
- Eye irritation (Category 2)
- Aquatic toxicity (Category 2)

2.2 GHS Label Elements

- Hazard Pictogram: Flame; Irritant; Environment
- Signal Word: Warning
- Hazard Statements: H225 (Highly flammable liquid and vapor); H332 (Harmful if inhaled); H315 (Causes skin irritation); H319 (Causes serious eye irritation); H401 (Toxic to aquatic life)



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- Precautionary Statements: P210 (Keep away from heat/sparks); P260 (Do not breathe vapor); P280 (Wear protective gloves/eye protection); P304+P340 (If inhaled: Remove to fresh air)

SECTION 3: Composition/Information on Ingredients

- Substance / Mixture: Pure substance
- Active Component: Ethanol (CAS 74-93-1)
- Concentration: $\geq 99.5\%$
- Impurities: $\leq 0.5\%$ (Water, trace alcohols)

SECTION 4: First Aid Measures

- Inhaled: Move to fresh air; seek medical attention if dizziness persists.
- Skin Contact: Rinse with running water for 10 minutes; remove contaminated clothing.
- Eye Contact: Rinse with plenty of water for 15 minutes; seek medical attention if irritation persists.
- Swallowed: Do not induce vomiting; rinse mouth with water; seek medical attention if discomfort occurs.

SECTION 5: Firefighting Measures

- Suitable Extinguishing Media: Dry powder, CO₂, foam, water spray.
- Special Hazards: Flammable vapor; forms explosive mixtures with air (3.3-19% v/v).
- Advice for Firefighters: Wear self-contained breathing apparatus and full protective clothing.

SECTION 6: Accidental Release Measures

- Personal Precautions: Evacuate non-essential personnel; wear full PPE; eliminate ignition sources.
- Environmental Precautions: Prevent entry into drains/watercourses.
- Clean-Up Methods: Small spills: Absorb with inert materials; large spills: Contain and transfer to sealed containers.

SECTION 7: Handling and Storage

- Handling: Operate in well-ventilated areas with explosion-proof equipment; use anti-static tools.
- Storage: Cool, dry, well-ventilated warehouse ($\leq 30^{\circ}\text{C}$); sealed, away from heat/sparks/oxidizers.
- Incompatibilities: Strong oxidizers, acids, alkalis.

SECTION 8: Exposure Controls/Personal Protection

- PPE: Chemical safety goggles; nitrile rubber gloves; anti-static clothing; respiratory protection not required under normal use.
- Exposure Limits: TWA (8h): 1000 ppm (OSHA); STEL (15min): 1500 ppm (OSHA).

SECTION 9: Physical and Chemical Properties

- Physical State: Liquid; Color: Colorless; Odor: Alcoholic

- Melting Point: -114.1°C; Boiling Point: 78.3°C; Flash Point: 13°C
- Density (20°C): 0.790 g/cm³; Viscosity (20°C): 1.20 mPa·s
- Water Solubility: Fully miscible; Vapor Pressure (20°C): 5.9 kPa
- Explosive Limits: 3.3-19% (v/v); Autoignition Temperature: 363°C

SECTION 10: Stability and Reactivity

- Stability: Stable under normal conditions.
- Hazardous Reactions: Reacts violently with strong oxidizers.

SECTION 11: Toxicological Information

- Acute Toxicity: Oral (Rat, LD₅₀): 7060 mg/kg; Inhalation (Rat, LC₅₀): 20000 ppm (4h)
- Skin/Eye Irritation: Mild skin irritation; reversible eye irritation.

SECTION 12: Ecological Information

- Aquatic Toxicity: Fish (Rainbow Trout, LC₅₀): 8000 mg/L (96h); Daphnia (EC₅₀): 10000 mg/L (48h)
- Biodegradability: Fully biodegradable (BOD₅ /COD = 0.7-0.8)

SECTION 13: Disposal Considerations

- Product Waste: Dispose as hazardous waste; dilute with water for biological treatment.
- Packaging Waste: Rinse with water; dispose as non-hazardous waste or recycle.

SECTION 14: Transport Information

- UN Number: 1170
- UN Proper Shipping Name: ETHANOL
- Transport Hazard Class: 3 (Flammable liquid); Packaging Group: II
- Marine Pollutant: No
- Transport Precautions: Avoid direct sunlight, high temperature, and collision.

SECTION 15: Regulatory Information

- National Regulations: Hazardous Chemical Safety Management Regulation; Environmental Protection Law.
- International Regulations: GHS (Rev. 9); REACH (EU, listed); TSCA (US, listed); IMDG Code.

SECTION 16: Other Information

- Revision Date: 25 MAR 2026
- Disclaimer: This MSDS is based on current data; supplier not liable for improper use.