

## Safety Data Sheet (MSDS)

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

### SECTION 1: Identification

#### 1.1 Product Identifiers

- Product Name: Phenol Solution (50% in Water)
- Product Number: PHN-20260322
- Brand: TECHPURE
- CAS-No.: 108-95-2
- Synonyms: Carboic Acid Solution; Phenolic Solution

#### 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: Chemical synthesis intermediate, disinfection, laboratory reagent.
- Uses Advised Against: Food contact, medicinal purposes, unventilated enclosed space use.

### SECTION 2: Hazards Identification

#### 2.1 GHS Classification

- Flammable liquids (Category 3)
- Acute toxicity - Oral (Category 3)
- Skin corrosion/irritation (Category 1)
- Eye damage/eye irritation (Category 1)
- Carcinogenicity (Category 2B)
- Aquatic toxicity (Category 1)

#### 2.2 GHS Label Elements

- Hazard Pictogram: Flame; Skull and crossbones; Corrosion; Carcinogen; Environment
- Signal Word: Danger
- Hazard Statements: H226 (Flammable liquid and vapor); H301 (Toxic if swallowed); H314 (Causes severe skin burns and eye damage); H351 (Suspected of causing cancer); H400 (Very 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/face/respiratory protection); P304+P340 (If inhaled: Remove to fresh air)

### SECTION 3: Composition/Information on Ingredients

- Substance / Mixture: Mixture
- Active Component: Phenol (CAS 108-95-2)
- Concentration: 50.0 ± 1.0%
- Diluent: Deionized Water (49.0-51.0%)
- Impurities: ≤ 0.5% (Cresol isomers)

### SECTION 4: First Aid Measures

- Inhaled: Move to fresh air; give oxygen if needed; seek emergency medical attention.
- Skin Contact: Rinse with running water for 15-20 minutes; remove contaminated clothing.
- Eye Contact: Rinse with plenty of water for 15 minutes; seek emergency medical attention.
- Swallowed: Do not induce vomiting; rinse mouth with water; seek immediate medical attention.

### SECTION 5: Firefighting Measures

- Suitable Extinguishing Media: Dry powder, CO<sub>2</sub>, foam, water spray.
- Special Hazards: Flammable vapor; toxic fumes (CO, phenol vapor) when burned; corrosive to metals.
- 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; neutralize with alkaline absorbents.
- 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 corrosion-resistant equipment; use anti-static tools.
- Storage: Cool, dark, well-ventilated warehouse (≤ 30°C); sealed, away from heat/sparks/oxidizers/bases.
- Incompatibilities: Strong bases, oxidizing agents, metals.

### SECTION 8: Exposure Controls/Personal Protection

- PPE: Chemical safety goggles/face shield; nitrile rubber gloves; chemical-resistant clothing; organic vapor respirator (P100).
- Exposure Limits: TWA (8h): 5 ppm (OSHA); STEL (15min): 10 ppm (OSHA); IARC Group 2B.

## SECTION 9: Physical and Chemical Properties

- Physical State: Liquid; Color: Colorless to pale pink; Odor: Phenolic
- Melting Point: 40.5°C; Boiling Point: 182°C; Flash Point: 79°C
- Density (20°C): 1.072 g/cm<sup>3</sup>; Viscosity (20°C): 2.5 mPa·s
- Water Solubility: Fully miscible; Vapor Pressure (25°C): 0.04 kPa
- Explosive Limits: 1.3-9.5% (v/v); Autoignition Temperature: 595°C

## SECTION 10: Stability and Reactivity

- Stability: Stable under normal conditions; oxidizes to quinone in air.
- Hazardous Reactions: Reacts violently with strong bases/oxidizers; forms explosive peroxides.

## SECTION 11: Toxicological Information

- Acute Toxicity: Oral (Rat, LD<sub>50</sub>): 317 mg/kg; Inhalation (Rat, LC<sub>50</sub>): 316 mg/m<sup>3</sup> (4h)
- Skin/Eye Corrosion: Severe skin burns; permanent eye damage risk.
- Chronic Toxicity: Suspected carcinogen; long-term exposure may cause liver/kidney damage.

## SECTION 12: Ecological Information

- Aquatic Toxicity: Fish (Zebrafish, LC<sub>50</sub>): 50 mg/L (96h); Daphnia (EC<sub>50</sub>): 80 mg/L (48h)
- Biodegradability: Moderately biodegradable (BOD<sub>5</sub>/COD = 0.3-0.4)

## SECTION 13: Disposal Considerations

- Product Waste: Dispose as hazardous waste; neutralize with alkali before disposal.
- Packaging Waste: Rinse with water; dispose as hazardous waste or recycle.

## SECTION 14: Transport Information

- UN Number: 2821
- UN Proper Shipping Name: PHENOL SOLUTION
- Transport Hazard Class: 6.1 (Toxic substances) + 8 (Corrosive substances)
- Packaging Group: II
- Marine Pollutant: Yes

## 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; IARC Group 2B.

## SECTION 16: Other Information

- Revision Date: 22 MAR 2026
- Disclaimer: This MSDS is based on current data; supplier not liable for improper use.