



NEWAY SINOPHC TECH. LIMITED

ADD:RM. 204, BUILDING 3, NO. 188, AONA RD., CHINA (SHANGHAI) PILOT FREE TRADE ZONE.
Email:marketing01@newayphc.com; Phone:+86-021-50350029 <https://www.newayphc.com>

Safety Data Sheet (MSDS)

(According to GB/T 16483 and GB/T 17519; Adapts to GHS, IMDG, IATA Standards)

SECTION 1: Identification

1.1 Product Identifiers

- Product Name: Acrylic Acid
- Product Number: AA-20260220
- Brand: SIGALD
- CAS-No.: 79-10-7
- Synonyms: Propenoic acid; Vinylformic acid

1.2 Details of the supplier of the safety data sheet

- Company : NEWAY SINOPHC TECH. LIMITED
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- Telephone : +86-021-50350029
- Fax : +86-021-50350029

1.3 Emergency telephone

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

1.4 Uses & Restrictions

- **Identified Uses:** Monomer for acrylic resin/polymer production, adhesives, coatings, textiles, superabsorbent polymers, water treatment chemicals.
- **Uses Advised Against:** Unauthorized polymerization, direct skin/eye contact, inhalation of vapor; not for food/ cosmetic use without purification.

SECTION 2: Hazards Identification

2.1 GHS Classification: Skin corrosion (Category 1B); Serious eye damage (Category 1); Acute aquatic toxicity (Category 2); Flammable liquid (Category 3)

- Hazard Pictogram: GHS02 (Flame), GHS05 (Corrosion), GHS09 (Environment)
- Signal Word: **Danger**
- Hazard Statements: H226 (Flammable liquid and vapor), H314 (Causes severe skin burns and eye damage), H401 (Toxic to aquatic life)
- Precautionary Statements: P210, P233, P240, P241, P242, P243, P260, P264, P273, P280, P301+P330+P331, P303+P361+P353, P304+P340, P305+P351+P338, P310, P321, P363, P391, P403+P235, P405, P501

2.3 Physical/Chemical Hazards: Flammable liquid; spontaneous polymerization if inhibitor is depleted (heat/light/air); reacts exothermically with strong bases/oxidizers.

2.4 Health Hazards: Severe skin/eye burns; vapor inhalation causes respiratory tract irritation/burning; ingestion causes severe gastrointestinal damage.

2.5 Environmental Hazards: Toxic to aquatic life; no biodegradation; accumulates in aquatic environments.



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SECTION 3: Composition

- **Substance/Mixture:** Pure Substance with stabilizer (MEHQ)
- **Main Component:** Acrylic Acid ($\geq 99.5\%$, CAS:79-10-7)
- **Stabilizer:** 4-Methoxyphenol (MEHQ, 200–300 ppm, CAS:150-76-5)
- **Formula:** $C_3H_4O_2$
- **Molecular Weight:** 72.06 g/mol
- **Hazardous Ingredients:** Acrylic Acid (100% active)

SECTION 4: First Aid Measures

- **Inhaled:** Move to fresh air, keep respiratory tract open. If breathing is difficult, give oxygen; **immediately call a doctor/Poison Control Center.**
- **Skin Contact:** Remove contaminated clothing/shoes **immediately**; rinse skin with plenty of running water for 15–20 minutes. **Immediate medical attention required**; do not use ointments.
- **Eye Contact:** Hold eyelids open, rinse with plenty of water for 15–20 minutes (under eye stream). **Immediate ophthalmologist attention required**; do not rub eyes.
- **Swallowed:** Do not induce vomiting; rinse mouth with water (do not drink). **Immediately call a doctor/Poison Control Center**; do not give anything by mouth to an unconscious person.

SECTION 5: Firefighting Measures

- **Suitable Extinguishing Media:** Dry powder, CO_2 , foam; water spray (cool containers only, do not direct water on liquid).
- **Special Hazards:** Flammable vapor-air mixtures; polymerization during fire (exothermic, pressure build-up); toxic combustion fumes (CO , organic acids).
- **Firefighter Protection:** Wear positive pressure self-contained breathing apparatus (SCBA), full chemical protective suit; cool containers with water spray to prevent re-ignition/polymerization.

SECTION 6: Accidental Release Measures

- **Personal Precautions:** Evacuate non-essential personnel; wear SCBA, chemical protective suit, nitrile gloves. Eliminate all ignition sources (no open flames/sparks).
- **Containment:** Dike spilled liquid with inert material (sand/vermiculite) to prevent runoff into sewers/waterways.
- **Cleanup:** Absorb with inert absorbent (do not use combustible materials); transfer to sealed, labeled HDPE drums for disposal by licensed facility. Do not flush to sewer.

SECTION 7: Handling and Storage

- **Handling:** Operate in well-ventilated fume hood; use ground/bonded equipment (static prevention); wear full PPE; avoid heat/light/air (inhibitor depletion); do not mix with incompatible materials.
- **Storage Conditions:** Cool, dark, well-ventilated warehouse ($\leq 25^\circ C$); store in sealed HDPE/glass drums; keep away from heat/light/flames/oxidizers/strong bases; separate from food/cosmetics.



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- **Incompatibilities:** Strong bases (NaOH/KOH), strong oxidizers (H₂O₂/KMnO₄), amines, metals, heat, light, air.
- **Shelf Life:** 12 months (unopened, ≤25°C, intact inhibitor); test inhibitor content before use if stored beyond 6 months.

SECTION 8: Exposure Controls/Personal Protection

- **Occupational Exposure Limits:** TWA: 2 ppm (5.9 mg/m³); STEL: 4 ppm (11.8 mg/m³) (OSHA/ACGIH)
- **Engineering Controls:** Explosion-proof ventilation, fume hood, closed transfer system, gas detection alarm (for vapor).
- **PPE:**
 - Eye/Face: Chemical splash goggles + face shield
 - Skin: Nitrile rubber gloves (thick ≥0.3 mm), chemical protective suit, anti-static safety shoes
 - Respiratory: N95 respirator (low vapor); SCBA (high vapor/spill/fire)
 - Other: Anti-static lab coat, safety shower/eyewash station nearby.

SECTION 9: Physical and Chemical Properties

- Physical State: Clear liquid (25°C)
- Color: Colorless to pale yellow
- Odor: Pungent, acrid odor
- Solubility: Miscible with water/ethanol/ether/acetone
- Density (25°C): 1.053 g/cm³
- Refractive Index (20°C): 1.419
- Freezing Point: 13.2°C
- Boiling Point: 141°C
- Flash Point: 54°C (Closed Cup)
- Autoignition Temperature: 438°C
- Viscosity (25°C): 1.3 mPa·s
- Vapor Pressure (20°C): 3.9 kPa
- Flammability: Flammable liquid (Category 3)
- pH (1% aq. solution): 2.4 (strongly acidic)

SECTION 10: Stability and Reactivity

- **Stability:** Stable under recommended storage (≤25°C, sealed, intact MEHQ inhibitor); unstable if inhibitor is depleted (polymerization).
- **Hazardous Reactions:** Spontaneous exothermic polymerization (heat/light/air); violent reaction with strong bases/oxidizers; corrosion of metals.
- **Decomposition Products:** CO, CO₂, acrylic acid oligomers/polymers (no toxic fumes at normal use).

SECTION 11: Toxicological Information

- Oral LD₅₀ (Rat): 335 mg/kg (toxic)



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- Dermal LD₅₀ (Rabbit): 250 mg/kg (toxic, severe burns)
- Inhalation LC₅₀ (Rat): 1500 ppm/4h (severe respiratory irritation)
- Skin Corrosion: Category 1B (severe burns)
- Eye Damage: Category 1 (permanent damage possible)
- No mutagenic/carcinogenic data (IARC Group 3: Unclassifiable).

SECTION 12: Ecological Information

- Aquatic Toxicity (Zebrafish LC₅₀): 120 mg/L/96h (Category 2, toxic)
- Aquatic Toxicity (Daphnia EC₅₀): 80 mg/L/48h (toxic)
- Persistence: Not biodegradable (BOD₅ /COD < 0.1)
- Bioaccumulative Potential: Low (log K_{oc}: 0.8)
- Environmental Fate: Accumulates in aquatic environments; no degradation in water/soil.

SECTION 13: Disposal Considerations

- **Product Waste:** Dispose via licensed hazardous waste facility; incinerate at controlled temperature (complete combustion); do not release to environment.
- **Packaging Waste:** Rinse with compatible solvent (ethanol); dispose as hazardous waste; do not recycle.
- **Contaminated Material:** All cleanup materials (absorbent/sand) are hazardous waste; seal and dispose properly.

SECTION 14: Transport Information

- UN Number: 2218
- Transport Hazard Class: 8 (Corrosive) + 3 (Flammable liquid)
- Packaging Group: I
- Marine Pollutant: Yes (H401)
- **Precautions:** Transport at ≤25°C; dark container; avoid heat/light/collision; ground/bond drums; separate from oxidizers/bases/food.

SECTION 15: Regulatory Information

- Complies with GHS, REACH, TSCA, OSHA, GB 13690-2009; listed as hazardous chemical (China).
- EU SVHC: Not listed; MEHQ (stabilizer) complies with REACH.
- Labeling: Mandatory GHS hazard labels + inhibitor content + storage temperature.

SECTION 16: Other Information

- **Revision Date:** 20 FEB 2026
- **Notes:** MEHQ is essential for stability; test inhibitor content before use; safety shower/eyewash must be available in work area.