

Safety Data Sheet: 2-Acrylamido-2-methylpropanesulfonic Acid (AMPS)

1. Identification

Product	2-Acrylamido-2-methylpropanesulfonic Acid (AMPS); CAS 15214-89-8; EC 239-268-0
Use	Professional monomer and industrial-polymer manufacture.
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 2-Acrylamido-2-methylpropanesulfonic Acid (AMPS). 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 inhalation toxicity Category 4; serious eye damage Category 1; specific target organ toxicity, single exposure Category 3 (respiratory irritation).
Signal word / symbols	Danger; GHS05, GHS07
Hazard statements	H302 + H332: harmful if swallowed or if inhaled. H318: causes serious eye damage. H335: may cause respiratory irritation.
Prevention	Use adequate ventilation; avoid inhaling dust. 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	2-Acrylamido-2-methylpropanesulfonic acid, CAS 15214-89-8, EC 239-268-0. Solid substance reference up to 100%; supply HPLC assay ≥99.0% does not establish the complete impurity profile.
Supply grade	HPLC assay ≥99.0%
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 dust.
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. Obtain urgent medical care.
Ingestion	Rinse the mouth. Do not induce vomiting. Give nothing by mouth to an unconscious person. Obtain medical advice.
Effects / treatment	Harmful ingestion and inhalation, serious eye injury and respiratory irritation are identified. Obtain immediate medical assistance after eye exposure. Treatment is symptomatic and directed by a clinician.

5. Fire-Fighting Measures

Extinguishing media	Use water spray, foam, carbon dioxide or dry powder appropriate to the incident. Firefighters require self-contained breathing apparatus; contain contaminated runoff.
Hazards	Heating or fire may produce carbon oxides, nitrogen oxides, sulfur 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

Personnel	Isolate the spill and provide ventilation. Use chemical-resistant gloves and eye protection; avoid contact and dust exposure.
Environment	Contain the release and protect drains and waterways. Report significant environmental contamination to the responsible authority.
Cleanup	Collect spilled solid without raising dust into closed labelled containers.

7. Handling and Storage

Handling	Use local extraction and controlled powder transfer. Avoid dust inhalation and all eye exposure; wear suitable gloves, protective clothing, tightly fitting goggles and face protection. Control reaction heat during dissolution and polymerization.
Storage	Keep tightly sealed, dry and cool with controlled ventilation. Protect this hygroscopic, heat-sensitive monomer from moisture and unnecessary heating; use inert-gas handling where specified. Segregate from strong oxidizers and incompatible alkalis.
Incompatibilities	Strong oxidizing agents and incompatible alkalis. Control heat and moisture exposure and any intended polymerization.

8. Exposure Controls / Personal Protection

Exposure limits	No substance-specific occupational exposure limit is identified in the selected reference. Apply local workplace dust controls.
Engineering controls	Use local extraction where dust 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	White powder
Formula / molecular weight	C ₇ H ₁₃ NO ₄ S / 207.25 g/mol
Density, reference	1.36 g/cm ³ at 20°C
Water solubility, reference	500 g/L at 20°C
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 and incompatible alkalis. Control heat and moisture exposure and any intended polymerization.
Decomposition	Heating or fire may produce carbon oxides, nitrogen oxides, sulfur oxides and irritating fumes.

11. Toxicological Information

Exposure effects	Harmful ingestion and inhalation, serious eye injury and respiratory irritation are identified. Obtain immediate medical assistance after eye exposure.
Reference classification	Acute oral and inhalation toxicity Category 4; serious eye damage Category 1; specific target organ toxicity, single exposure Category 3 (respiratory irritation).
Data limits	Reference rat oral LD ₅₀ 1,830 mg/kg and rabbit dermal LD ₅₀ 4,000 mg/kg. Serious eye damage and harmful inhalation are classified. Genotoxicity studies show mixed in-vitro results and negative in-vivo bone-marrow testing; no supplied-batch mutagenicity classification is inferred.

12. Ecological Information

Environmental effects	Reference fish LC ₅₀ 170 mg/L over 96 hours and water-flea EC ₅₀ 340 mg/L over 48 hours. Not readily biodegradable in the selected test; prevent environmental release.
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
UN number	Not assigned
Shipping name	Not regulated as dangerous goods
Class / packing group	Selected substance reference, DOT / IMDG / IATA: non-dangerous goods, no packing group assigned. An alternative substance classification is UN 3261, CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S., Class 8, packing group III. Follow the classification assigned to the actual ordered grade.
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	2-Acrylamido-2-methylpropanesulfonic Acid (AMPS); CAS 15214-89-8; EC 239-268-0
HS reference	292419; 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	H302 + H332: harmful if swallowed or if inhaled. H318: causes serious eye damage. H335: may cause respiratory irritation.
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