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SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Product	2-Acrylamido-2-methyl-1-propanesulfonic Acid (AMPS)	**Revision date**	2026-11-16
Version	1.0	**Brand**	Richest

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product name	2-Acrylamido-2-methyl-1-propanesulfonic Acid (AMPS)
Synonyms	AMPS; 2-Acrylamido-2-methylpropane sulfonic acid; 2-Acrylamido-2-methyl-1-propanesulfonic acid; 2-Methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid
CAS No.	15214-89-8
EC No.	239-268-0
Molecular formula	C7H13NO4S
Molecular weight	207.25 g/mol
Relevant identified uses	Reactive sulfonic-acid monomer for drilling-fluid polymers and specialty oilfield additives; Monomer for water-treatment polymers, scale-control and dispersant formulations; Raw material for acrylic copolymers used in coatings, adhesives, textiles, paper and other industrial formulations
Uses advised against	No specific uses advised against were identified in the reviewed sources.
Company	Richest Group
Address	No. 999, Jiangyue Rd, Minhang, Shanghai 201114, China
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SECTION 2: Hazards identification

GHS Classification	Acute oral toxicity Category 4; acute inhalation toxicity Category 4; serious eye damage Category 1; specific target organ toxicity, single exposure Category 3 (respiratory tract irritation)
Pictogram(s)	GHS05, GHS07
Signal word	Danger
Hazard statement(s)	H302+H332 Harmful if swallowed or if inhaled; H318 Causes serious eye damage; H335 May cause respiratory irritation
Precautionary statement(s)	P261; P264; P270; P271; P280; P301+P312+P330; P304+P340+P312; P305+P351+P338+P310; P403+P233; P405; P501
Other hazards	No other hazards were identified in the reviewed sources.

SECTION 3: Composition/information on ingredients

Component	2-Acrylamido-2-methyl-1-propanesulfonic Acid (AMPS)
CAS No.	15214-89-8

SECTION 3: Composition/information on ingredients	
EC No.	239-268-0
Classification	Acute oral toxicity Category 4; acute inhalation toxicity Category 4; serious eye damage Category 1; specific target organ toxicity, single exposure Category 3 (respiratory tract irritation)
Concentration	Content ≥99%

SECTION 4: First-aid measures	
If inhaled	Move to fresh air and keep comfortable for breathing. Call a poison centre or doctor if unwell or if respiratory irritation persists.
In case of skin contact	Wash with plenty of soap and water. Remove contaminated clothing and seek medical advice if irritation develops.
In case of eye contact	Rinse cautiously with water for several minutes, remove contact lenses if present and easy to do, continue rinsing and obtain immediate medical attention.
If swallowed	Rinse mouth and call a poison centre or doctor if unwell. Do not induce vomiting unless directed by medical personnel.
Most important symptoms and effects	Material may be extremely destructive to mucous membranes, the upper respiratory tract, eyes and skin. Reported symptoms include cough, shortness of breath, headache and nausea; acute inhalation may cause mucosal irritation (ChemicalBook SDS). Merck product 818667 identifies serious eye damage and possible respiratory irritation.
Indication of immediate medical attention	Treat symptomatically. Show this safety data sheet to medical personnel.

SECTION 5: Fire-fighting measures	
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide as appropriate for the surrounding fire.
Unsuitable extinguishing media	No data available
Special hazards arising from the chemical	Carbon oxides, nitrogen oxides and sulfur oxides may be generated in a fire (ChemicalBook SDS).
Advice for firefighters	Firefighters should wear self-contained breathing apparatus and full protective clothing and should prevent contaminated runoff from entering drains.

SECTION 6: Accidental release measures	
Personal precautions and emergency procedures	Avoid contact with the material. Ensure adequate ventilation. Wear appropriate personal protective equipment.
Environmental precautions	Prevent uncontrolled release to drains, soil and watercourses.
Methods for containment and cleaning up	Avoid generating or breathing dust. Ventilate, use eye protection, gloves and suitable respiratory protection, and collect the powder mechanically into a closed labelled container. Prevent entry into drains and watercourses and clean residues without dispersing dust.

SECTION 7: Handling and storage	
Precautions for safe handling	Use only with adequate ventilation and avoid breathing dust. Prevent eye contact, keep containers tightly closed and protect from moisture. Wash thoroughly after handling and do not eat, drink or smoke in the handling area.

SECTION 7: Handling and storage

Conditions for safe storage, including incompatibilities	Keep tightly closed, dry and protected from moisture in a cool, well-ventilated indoor area. Protect from heat, keep away from incompatible materials and follow inert-atmosphere precautions where required by the actual batch SDS. Public supplier-stated shelf life: one year.

SECTION 8: Exposure controls/personal protection

Occupational exposure limit values	No data available
Biological limit values	No biological limit values were identified in the reviewed sources.
Appropriate engineering controls	Use local exhaust ventilation or enclosed powder handling and provide eyewash facilities. Control airborne dust at source.
Eye/face protection	Wear chemical safety glasses or goggles, protective gloves and work clothing. Use an approved particulate respirator where ventilation does not adequately control dust.
Skin and body protection	Wear chemical safety glasses or goggles, protective gloves and work clothing. Use an approved particulate respirator where ventilation does not adequately control dust.
Respiratory protection	Use suitable respiratory protection if exposure limits may be exceeded or dust, mist or vapour is generated.
Thermal hazards	Decomposes at 195 °C according to the ChemicalBook SDS. The material is hygroscopic; Spectrum A2175 specifies refrigeration and keeping the container tightly closed.

SECTION 9: Physical and chemical properties

Physical state	White crystalline powder
Colour	White to slightly brown (FUJIFILM Wako); white (SoleChem product information).
Odour	No data available
Melting point / freezing point	Commercial specification ≥185°C; same-identity SDS reports approximately 195°C with decomposition
Boiling point / boiling range	No data available
Flammability	Storage class 13 - Non Combustible Solids (SoleChem product information).
Explosion / flammability limits	No data available
Flash point	No data available
Auto-ignition temperature	No data available
Decomposition temperature	195 °C with decomposition (ChemicalBook SDS).
pH	No data available
Viscosity	Not applicable to the solid as supplied.
Solubility	500 g/L soluble at 20 °C
Partition coefficient n-octanol/water	log Kow −3.7 at 20°C
Vapour pressure	<0.1 hPa at 25°C
Density and/or relative density	1.36 g/cm³ at 20°C
Relative vapour density	No data available
Particle characteristics	White crystalline powder (FUJIFILM Wako; SoleChem); bulk density 640 kg/m³ (Merck product 818667).

SECTION 9: Physical and chemical properties	
Water solubility	500 g/L at 20°C
Self ignition	>400°C at 101.325 kPa
Surface tension	70.5 mN/m at 1 g/L and 20°C
Self-ignition	>400 °C at 101.325 kPa
Surface tension	70.5 mN/m, 1 g/L, 20 °C

SECTION 10: Stability and reactivity	
Reactivity	Stable under recommended storage conditions (ChemicalBook SDS).
Chemical stability	chemical_stability: Stable under recommended closed, dry storage conditions; the material is moisture and heat sensitive.
Possibility of hazardous reactions	No data available
Conditions to avoid	Heat, moisture, dust accumulation and storage outside the supplier shelf-life recommendations.
Incompatible materials	Avoid strong oxidising agents and other incompatibles identified by the actual supplied SDS.
Hazardous decomposition products	Carbon oxides, nitrogen oxides and sulfur oxides may form under fire conditions (ChemicalBook SDS).

SECTION 11: Toxicological information	
Acute effects	Harmful if swallowed or inhaled; may cause respiratory irritation and causes serious eye damage.
Chronic effects	No carcinogenic, reproductive-toxicity or chronic target-organ classification is assigned in the selected same-identity SDS.
Serious eye damage irritation	GHS classification: Serious Eye Damage 1
Acute toxicity	LD50 oral, male rat: 1830 mg/kg, OECD Test Guideline 401 (ChemicalBook SDS). Merck product 818667 gives a rat oral LD50 range of 1000-2000 mg/kg and identifies the material as harmful if swallowed or inhaled.
Irritation sensitization	Rabbit skin: no irritation, OECD Test Guideline 404. Rabbit eyes: severe irritation (IUCLID). Buehler test in guinea pigs: negative for sensitization (ChemicalBook SDS).
Genetic toxicity	Positive results were obtained in some in-vitro chromosome-aberration tests; Ames testing and an in-vitro mammalian cell gene mutation test were negative, and OECD Test Guideline 475 in rat bone marrow was negative (ChemicalBook SDS).

SECTION 12: Ecological information	
Classification	No aquatic-hazard classification is assigned in the selected same-identity SDS.
Release control	Quantitative product-specific aquatic endpoints are not asserted here; prevent avoidable releases of powder or concentrated solutions to drains and natural waters.
Aquatic toxicity	Static LC50 Lepomis macrochirus 170 mg/L, 96 h (US EPA method); static EC50 Daphnia magna 340 mg/L, 48 h (US EPA method); respiration-inhibition NOEC in activated sludge 1000 mg/L, 3 h, OECD Test Guideline 209 (ChemicalBook SDS).
Persistence degradability	<20% biodegradation; not readily eliminated from water, OECD Test Guideline 302A (ChemicalBook SDS).
Bioaccumulation	Bioaccumulation is not expected based on log Pow -3.7 at 20 °C (ChemicalBook SDS).

SECTION 13: Disposal considerations	
Product disposal methods	Dispose of contents and container in accordance with local regulations through an authorised waste contractor. Avoid dust generation and do not discharge residues to drains or surface water.
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal in accordance with local regulations.

SECTION 14: Transport information	
UN Number (ADR/RID, IMDG, IATA)	Not regulated as dangerous goods
UN Proper Shipping Name	Not regulated as dangerous goods
Transport hazard class(es)	Not regulated as dangerous goods
Packing group	Not regulated as dangerous goods
Environmental hazards / Marine pollutant	Not assigned in the cited public SDS
Special precautions for user	Not regulated as dangerous goods under ADR/RID, IMDG and IATA in the cited public SDS. Keep containers closed and secured during transport.

SECTION 15: Regulatory information	
Safety, health and environmental regulations specific for the product	identity: AMPS monomer, CAS 15214-89-8, EC 239-268-0, C7H13NO4S, 207.25 g/mol; use_restrictions: Industrial monomer grade; no food, pharmaceutical or biocidal approval is implied. Polymerisation formulations and drilling-fluid performance require application testing.; customs: HS 29241900 is indicative and must be checked against the actual supplied product and destination tariff.

SECTION 16: Other information	
Full text of H-Statements	H302+H332 Harmful if swallowed or if inhaled; H318 Causes serious eye damage; H335 May cause respiratory irritation
Revision date	2026-11-16
Version	1.0

SECTION 16: Other information

References	Supplier technical documents, public SDS/COA/TDS and regulatory sources reviewed. Public data citations are listed below. Public data sources: 2-Acrylamido-2-methylpropanesulfonic Acid (AMPS) for oilfield chemistry and water treatment: https://www.cnccindustries.com/2-acrylamido-2-methyl-propanesulfonic-acid-amps-used-in-oilfield-chemistry-water-treatment-printing-and-dyeing-plastic-paper-making-product/ | 2-Acrylamido-2-methyl-1-propanesulfonic acid, 99%, product 282731: https://www.merckmillipore.com/AT/en/product/aldrich/282731 | AMPS / 2-Acrylamido-2-methylpropane sulfonic acid product and transport information: https://hansonchemicals.com/products/amps-2-acrylamido-2-methylpropane-sulfonic-acid/ | 2-Acrylamido-2-methylpropane sulphonic acid (AMPS) H500: https://www.irowater.com/products/2-acrylamido-2-methylpropane-sulphonic-acid-amps/ | PubChem 2-Acrylamido-2-methyl-1-propanesulfonic acid (CID 65360): https://pubchem.ncbi.nlm.nih.gov/compound/65360 | Merck/Sigma-Aldrich 2-Acrylamido-2-methylpropanesulfonic acid, product 818667: https://www.merckmillipore.com/INTL/en/product/2-Acrylamido-2-methylpropanesulfonic-acid,MDA_CHEM-818667 | ChemicalBook Safety Data Sheet: 2-Acrylamide-2-methylpropanesulfonic acid, CAS 15214-89-8: https://www.chemicalbook.com/msds/2-acrylamide-2-methylpropanesulfonic-acid.htm | FUJIFILM Wako 2-Acrylamido-2-methylpropane Sulfonic Acid, product 017-15722: https://labchem-wako.fujifilm.com/us/product/detail/W01W0101-1572.html | SoleChem Europe: 2-Acrylamido-2-methyl-1-propanesulfonic acid product information: https://www.solechem.eu/products/cas-15214-89-8/ | Spectrum Chemical: 2-Acrylamido-2-methyl Propanesulfonic Acid, A2175: https://www.spectrumchemical.com/2-acrylamido-2-methyl-propanesulfonic-acid-a2175
Abbreviations	CAS: Chemical Abstracts Service; ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road; IMDG: International Maritime Dangerous Goods; IATA: International Air Transport Association; SDS: Safety Data Sheet.
Disclaimer	The information in this SDS applies to the specified product and is provided in good faith based on information available to Richest Group at the date of issue. It describes health, safety and environmental requirements and does not constitute a guarantee of product properties. Users must assess suitability and comply with applicable regulations.