

Acetic Acid Glacial

Safety data sheet in the 16-section GHS format · CAS 64-19-7

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1. Identification of the substance and of the supplier

Product name	Acetic Acid Glacial
Synonyms	glacial acetic acid, GAA chemical, GAA 99.8
C.A.S. number	64-19-7
Molecular formula	CH ₃ COOH
Grade supplied	99.8% min
Product group	Mineral & Organic Acids
Identified uses	Textiles, Pharmaceuticals, Food processing, Rubber, Chemicals, Inks & coatings
Supplier	Velora Chemicals Private Limited
Emergency contact	Medical, fire or spill emergency — call the emergency services first: 112 (all-India), 101 fire, 108 ambulance. Velora Chemicals Private Limited does not at present operate a 24-hour chemical emergency advice line, and this sheet does not pretend otherwise. Every consignment despatched by road carries an emergency information panel under rule 134 of the Central Motor Vehicles Rules 1989 bearing a number from which expert advice on this material can be obtained, and the producer's safety data sheet issued with the consignment carries the producer's own 24-hour number where one is operated. For product, grade and documentation queries in business hours: +91 99255 22674.

2. Hazards identification

GHS signal word	Danger
Hazard classification	Flam. Liq. 3 — H226; Skin Corr. 1A — H314; Eye Dam. 1 — H318 (EU harmonised, CLP Annex VI index 607-002-00-6; the Annex VI specific concentration limits place 90% and above into Skin Corr. 1A and 25% and above into Eye Dam. 1, so 99.8% carries both); Met. Corr. 1 — H290 (supplier self-classification, not in Annex VI)

3. Composition / information on ingredients

Substance	Acetic Acid Glacial
C.A.S. number	64-19-7
Molecular weight	60.05 g/mol
Composition	99.8% min

4. First-aid measures

Eye contact	Rinse immediately with plenty of gently flowing water for at least 15 minutes, holding the eyelids apart; remove contact lenses if easy to do and continue rinsing. Do not use any neutralising agent. Refer immediately for ophthalmological attention and continue irrigation during transport — glacial acetic acid causes serious, potentially permanent eye damage.
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Skin contact	Remove contaminated clothing while flushing, rinse the skin with plenty of water and then wash with water and soap for at least 15 minutes (ILO ICSC 0363). Do not apply neutralising agents. Refer for medical attention; glacial acetic acid causes deep chemical burns and the injury is often more severe than the initial appearance suggests.
Inhalation	Move the casualty to fresh air, keep at rest in a half-upright position and give oxygen if breathing is difficult. Refer immediately for medical attention (ILO ICSC 0363). Concentrated vapour can cause airway burns and delayed pulmonary oedema, so medical observation is needed even if the person seems to recover.
Ingestion	Rinse the mouth with water. Do NOT induce vomiting — re-exposure of the oesophagus and the aspiration risk make vomiting dangerous. Do not give sodium bicarbonate or other neutralising agents. If the casualty is fully conscious and ingestion occurred within the last few minutes, a small amount of water may be given to dilute (ILO ICSC 0363). Give nothing by mouth to an unconscious person. Refer immediately for medical attention.
5. Fire-fighting measures	
Flash point	39 C (closed cup) — ILO ICSC 0363 and neofroxx SDS. Explosive limits 6.0-17 vol% in air; auto-ignition 485 C (ILO ICSC 0363)
Suitable extinguishing media	This material has a flash point and burns. Use alcohol-resistant foam, dry chemical powder or carbon dioxide; water spray or fog to cool surrounding surfaces and containers. Confirm the medium against the producer's safety data sheet for the grade supplied.
Unsuitable extinguishing media	Do not use a high-pressure water jet: it will spread the material and the fire. A vapour flash-back to the source and re-ignition of cooled but still-hot material are both foreseeable; do not approach a container that may be pressurised or a pool fire without cover.
Special hazards arising from the substance	Hazardous gases and decomposition products may be formed in a fire, from this substance or from its packaging and the materials stored with it. Packaging and pallets are themselves a substantial fire load.
Advice for fire-fighters	Fire-fighters must wear self-contained breathing apparatus and full protective clothing. Keep unnecessary personnel away and upwind. Prevent firefighting run-off from entering drains, surface water or groundwater.

6. Accidental release measures

Keep unnecessary personnel away and upwind, and ventilate. Wear the protective equipment in section 8, including respiratory protection, before approaching. Eliminate ignition sources and prohibit smoking before approaching. Avoid raising dust, and never blow a spilled powder down with compressed air. Dry-collect — vacuum with a HEPA-filtered unit, or sweep gently without raising dust — into labelled, closable containers for disposal under section 13. A spill inside a vessel, tank, silo, container or pit is a confined-space job: test the atmosphere and work under permit. A fine powder makes a floor slippery, especially once wet, so treat every wetted surface as slippery until it has been washed and dried. Prevent entry to drains, surface water and groundwater. Do not return spilled material to the original container; a damaged bag should be overpacked into a labelled outer rather than decanted into an unmarked one.

7. Handling and storage

- The name is literal — glacial acetic acid freezes just below normal room temperature, around 16–17°C. Drums stored outside in a north Indian winter will solidify and have to be warmed before use. Plan indoor storage or a warm store if you buy through the cold months.
- It is flammable as well as corrosive, and the flash point — about 39 °C closed cup — matters more in India than the number suggests. An unshaded godown in Gujarat or Rajasthan comfortably exceeds that on a May afternoon, which means the vapour above the drums can sit in the flammable range at storage temperature. Keep it in a shaded, ventilated flammables store with rated electricals and no ignition sources.
- UN 2789, Class 8 corrosive with a Class 3 flammable subsidiary risk, Packing Group II — corrosive is the primary class. That is what the driver's paperwork, the drum label and the vehicle placard hang on, so it is worth getting right.

- Stainless steel, glass and suitable plastics are fine. It attacks many common metals, so check before piping it through anything unusual.

Storage: Store in a fireproof, well-ventilated store approved for flammable liquids, separated from food and feedstuffs, strong oxidisers, strong acids and strong bases (ILO ICSC 0363). Keep away from all ignition sources; earth and bond containers and equipment during transfer, as the vapour is heavier than air and can travel to a remote ignition source. Use 304/316 stainless steel, glass or compatible plastics; avoid ordinary carbon steel and unsuitable elastomers. Keep containers tightly closed and protected from sunlight. Note that the product solidifies below about 16 C, so drums may need a warm store or gentle warming — never heat with a direct flame or a hot plate.

8. Exposure controls / personal protection

Engineering controls. Enclose every transfer, tipping, bag-slitting and sampling point and fit local exhaust extraction at each, and keep airborne concentrations below the limit in force at the place of use. Provide an eyewash within reach of the working position, and a safety shower wherever the material is classified corrosive or irritant or is handled in quantity. Do not eat, drink or smoke in the handling area; wash before breaks. Where no limit is stated above, occupational exposure limits vary by jurisdiction: check the limit in force at the place of use and the producer's sheet for the grade supplied, and record which value your assessment adopted. Select eye, skin and respiratory protection on the strength of a measured or modelled exposure assessment, not on this sheet alone.

9. Physical and chemical properties

Appearance	Clear, colourless liquid with a strong pungent vinegar-like odour; forms colourless ice-like crystals below about 16.6 C, which is the origin of the name 'glacial'
Physical state	Liquid above about 16.6 C; crystalline solid below that
Melting / freezing point	16.6 C (ILO ICSC 0363 gives 16.7 C; neofroxx SDS gives 16.64 C)
Boiling point	118 C (ILO ICSC 0363; neofroxx gives 117.9 C)
Relative density	1.05 g/cm ³ at 20 C (ILO ICSC 0363; neofroxx gives 1.04 g/cm ³)
Solubility in water	Miscible with water in all proportions
pH	2.4 (dilute aqueous solution — neofroxx SDS). pH is not a meaningful parameter for the essentially anhydrous glacial acid itself
Flash point	39 C (closed cup) — ILO ICSC 0363 and neofroxx SDS. Explosive limits 6.0-17 vol% in air; auto-ignition 485 C (ILO ICSC 0363)
Auto-ignition / ignition temperature	Not available
Explosive / dust-explosion properties	Not available
Vapour pressure	Not available
Vapour density	Not available
Partition coefficient (log Pow)	Not available
Particle characteristics	Not available
Molecular weight	60.05 g/mol

10. Stability and reactivity

Incompatible materials Strong oxidisers — nitric acid, chromic acid and chromium trioxide, permanganates, perchloric acid, peroxides, hydrogen peroxide, chlorine (risk of violent reaction, fire or explosion); strong bases and alkalis; strong acids; acetaldehyde and acetic anhydride; amines and ammonia; ethylene glycol; phosphorus trichloride; carbonates and hydroxides; metals including iron, zinc and magnesium (liberates flammable hydrogen); and it attacks some plastics, rubbers and protective coatings (ILO ICSC 0363)

Conditions to avoid Store in a fireproof, well-ventilated store approved for flammable liquids, separated from food and feedstuffs, strong oxidisers, strong acids and strong bases (ILO ICSC 0363). Keep away from all ignition sources; earth and bond containers and equipment during transfer, as the vapour is heavier than air and can travel to a remote ignition source. Use 304/316 stainless steel, glass or compatible plastics; avoid ordinary carbon steel and unsuitable elastomers. Keep containers tightly closed and protected from sunlight. Note that the product solidifies below about 16 C, so drums may need a warm store or gentle warming — never heat with a direct flame or a hot plate.

11. Toxicological information

The health hazards classified for this substance are listed in section 2, and the corresponding first-aid measures in section 4. Numerical toxicological endpoints are not reproduced here: refer to the producer's safety data sheet for the grade supplied, and to the ECHA and PubChem entries for the substance.

12. Ecological information

Where section 2 or section 14 classifies this substance as hazardous to the aquatic environment, prevent any release to drains, surface water or groundwater and treat aqueous effluent before discharge. Otherwise, refer to the producer's sheet.

13. Disposal considerations

Dispose of the substance and its container through an authorised facility under the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 where the waste is scheduled under those Rules, and otherwise as non-hazardous industrial waste, in each case under the conditions of the State Pollution Control Board consent in force at the site. Whether a particular waste stream is scheduled depends on the substance and on what it has been mixed with, so classify the waste before consigning it. Do not reuse empty containers for any other purpose.

14. Transport information

UN number	UN 2789
Class	8 (3) — Class 8 corrosive with a Class 3 flammable-liquid subsidiary hazard
Packing group	II
Proper shipping name	ACETIC ACID, GLACIAL

15. Regulatory information

Supply in India is subject to the Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 where the substance is scheduled, and to any product-specific licensing named on the product page. Classification and labelling follow the GHS as adopted in the jurisdiction of use.

Note: This is a Class 8 corrosive with a Class 3 flammable subsidiary hazard — it is frequently mis-declared as Class 3 only, which loses the corrosive label and the PG II packing requirements. UN 2789 covers glacial acetic acid and acetic acid solutions with more than 80% acid by mass. Weaker solutions use a different UN number: UN 2790 ACETIC ACID SOLUTION with more than 50% but not more than 80% acid by mass is Class 8, PG II, and UN 2790 with not less than 10% but not more than 50% acid is Class 8, PG III. 'Glacial' means substantially anhydrous, not a grade of purity — the acid freezes at about 16.6 C and will solidify in drums during an Indian winter or in a cold store, which is normal and reversible. The flash point of 39 C is only a little above ambient in much of India for much of the year, so the vapour space of a warm drum can be within the explosive range; treat it as a flammable liquid in handling, not merely as an acid. Diluted acetic acid is ordinary vinegar, but do not let that familiarity carry over — at 99.8% the material causes full-thickness burns.

16. Other information

Version	1.0
Date of issue	07 October 2026
Supersedes	No previous version
Regulatory basis as at the date of issue	EU CLP Regulation 1272/2008 as amended, including Annex VI harmonised classifications; UN Model Regulations and the IMDG Code Amendment 42-24, mandatory from 1 January 2026; ADR 2025; and, in India, the Manufacture, Storage and Import of Hazardous Chemical Rules 1989 and the Central Motor Vehicles Rules 1989.

How this sheet was compiled and what governs. This sheet was prepared by Velora Chemicals Private Limited as the supplier, from PubChem, the ECHA CLP inventory including Annex VI harmonised classifications, ILO International Chemical Safety Cards and published producer safety data sheets. Values that could not be confirmed from those sources are shown as "Not available" rather than estimated. **The producer's safety data sheet for the specific grade and lot supplied is the governing document** and is issued with the consignment; where the two differ, the producer's sheet prevails. This sheet carries no warranty of the properties of any particular batch. Velora Chemicals Private Limited is a bulk supplier and trader, not a manufacturer.

Sources consulted: https://chemicalsafety.ilo.org/dyn/icsc/showcard.display?p_card_id=0363&p_version=2&p_lang=en;
https://shop.neofroxx.com/msds/EN/MSDS_LC-10394_GB_en.pdf; <https://www.sigmaaldrich.com/US/en/sds/aldrich/w200603>