Safety Data Sheet · OSHA HCS 2024

75% Vinegar ACS Grade

ACS Grade · 75% w/w

Standard	Revised	Emergency
OSHA HCS 2024 · GHS Rev. 7	2026-11-12	Chemtel 1-800-255-3924 (24/7)

1 Identification

Product Identifier	75% Vinegar ACS Grade
Grade	ACS Grade
Concentration	75% w/w
CAS Number	64-19-7
Chemical Formula	CH3COOH
Molecular Weight	60.05 g/mol
Manufacturer	Alliance Chemical 204 South Edmond Street, Taylor, TX 76574
Emergency Phone	Chemtel 1-800-255-3924 (24/7)
Synonyms	Acetic acid solution; ethanoic acid; concentrated vinegar
Recommended Use	Laboratory and analytical reagent (ACS grade); descaling and cleaning concentrate.
Restrictions on Use	ACS reagent grade: not for food or beverage use. Dilute before use; do not use undiluted on surfaces that acids damage.

2 Hazard Identification



Corrosive



Irritant / harmful

Classification

Acute toxicity (dermal), Category 4

Skin corrosion/irritation, Category 1

Serious eye damage/eye irritation, Category 1

Signal Word

Danger

Hazard Statements

H312 Harmful in contact with skin

H314 Causes severe skin burns and eye damage

Precautionary Statements

P260 Do not breathe dust, fume, gas, mist, vapors or spray.

P264 Wash hands and face thoroughly after handling.

P280 Wear protective gloves, protective clothing, and eye/face protection.

P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P302+P352 IF ON SKIN: Wash with plenty of water and soap.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER or doctor.

P312 Call a POISON CENTER or doctor if you feel unwell.

P321 Specific treatment (see first-aid information on this label).

P362 Take off contaminated clothing and wash before reuse.

P363 Wash contaminated clothing before reuse.

P405 Store locked up.

P501 Dispose of contents and container in accordance with local, regional, national, and international regulations.

Classification, hazard (H) and precautionary (P) statements and pictograms per OSHA HCS 2024 (29 CFR 1910.1200, Appendices A–C), aligned with GHS Rev. 7.

3 Composition / Information on Ingredients

Component	CAS No.	Formula	Concentration
Acetic acid	64-19-7	C2H4O2	74.5-75.5% (w/w)
Water	7732-18-5	H2O	Balance (w/w)

Concentrations are nominal; lot-specific values appear on the Certificate of Analysis. Components not contributing to classification are omitted.

4 First-Aid Measures

Eyes
Rinse with plenty of water for at least 15 minutes. Remove contact lenses if present and easy to do. Continue rinsing. Seek medical attention immediately.

Skin
Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing. Wash with soap. Get medical attention immediately.

Inhalation
Move person to fresh air and keep comfortable for breathing. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention immediately.

Ingestion
Do Not Induce Vomiting! Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention immediately.

Most Important Symptoms and Effects
Causes burns to the skin, eyes and mucous membranes; eye contact may cause permanent damage including blindness; ingestion burns the mouth, throat and stomach.

Absorption through the skin may cause systemic poisoning.

Immediate Medical Attention and Special Treatment
Immediate medical attention is required after eye or skin contact or ingestion; tissue damage may continue after exposure ends.

5 Fire-Fighting Measures

Suitable Extinguishing Media
Dry chemical, CO2, water spray. Use water spray to cool containers.

Unsuitable Extinguishing Media
Do not use a solid water stream as it may scatter and spread fire.

Specific Hazards Arising from the Chemical
Fire may release corrosive and toxic gases. Containers may rupture when heated.

Protective Equipment
Wear self-contained breathing apparatus and full protective clothing.

Hazardous Combustion Products	Carbon oxides.

6 Accidental Release Measures

Personal Precautions	Use PPE as described in Section 8. Ensure adequate ventilation. Evacuate personnel to safe areas.
Hazard-Specific Precautions	Do not touch spilled material without protective equipment. Neutralize residue only with a method suitable for the material, then collect.
Environmental Precautions	Prevent leakage or spillage from entering drains, sewers, or waterways.
Containment & Cleanup	Absorb with inert material. Collect in appropriate waste container. Dispose per applicable regulations.

7 Handling and Storage

Safe Handling	Use with adequate ventilation. Avoid contact with skin, eyes, and clothing. Wash thoroughly after handling. Keep container closed when not in use.
Safe Storage	Store in a cool, dry, well-ventilated area. Use corrosion-resistant containers. Keep away from incompatible materials (see Section 10). Keep containers tightly closed.
Specific Storage Precautions	Store sealed in the original corrosion-resistant container (polyethylene, glass or stainless steel; not mild steel or aluminum) in a cool, dry, well-ventilated area out of direct sunlight, away from bases, oxidizers and foodstuffs. Protect from freezing. Avoid forming aerosols when handling.

8 Exposure Controls / Personal Protection

Occupational Exposure Limits

Limit	Value
OSHA PEL	10 ppm TWA
ACGIH TLV	10 ppm TWA / 15 ppm STEL
NIOSH REL	10 ppm TWA / 15 ppm STEL
IDLH	50 ppm

Engineering Controls	Use adequate ventilation. Provide eyewash stations and quick-drench showers accessible to areas of use.
Eye/Face Protection	Wear chemical safety goggles or face shield.
Skin Protection	Wear chemical-resistant gloves and protective clothing.
Respiratory Protection	Where mist, spray or dust is generated (e.g., spraying, atomization, pressure washing), use a NIOSH-approved half-face air-purifying respirator with combination acid gas / P100 cartridges. Ensure local exhaust ventilation.

Exposure limits sourced from NIOSH Pocket Guide, OSHA 29 CFR 1910.1000 and ACGIH TLVs.

9 Physical & Chemical Properties

Appearance	Clear colorless liquid with a vinegar odor (75% aqueous acetic acid solution).

Odor	Pungent, vinegar-like, sour
Odor Threshold	1 ppm (acetic acid)
pH	Below 3
Melting Point / Freezing Point	not characterized for the solution
Boiling Point	not characterized for the solution
Flash Point	No flash point up to boiling (closed cup); not flammable.
Evaporation Rate	No data available
Flammability (solid, gas)	No data available
Upper/Lower Flammability or Explosive Limits	No data available
Vapor Pressure	Not determined for the 75% solution (pure acetic acid: 11.4 mmHg at 20 °C)
Vapor Density	No data available
Relative Density	1.070 at 20/20 °C (water = 1)
Solubility	Completely miscible with water
Partition Coefficient (n-octanol/water)	No data available
Auto-ignition Temperature	No data available
Decomposition Temperature	No data available
Viscosity	No data available
Particle Characteristics	Not applicable
Form	Liquid
Density	1.0680 g/cm^3 at 20 °C

Values shown reflect product-specific canonical data. Lot-specific ranges may vary; see the Certificate of Analysis for the shipped lot.

10 Stability and Reactivity

Reactivity	Not reactive under normal conditions of use and storage.
Chemical Stability	Stable under recommended storage conditions.
Possibility of Hazardous Reactions	None under normal processing conditions.
Conditions to Avoid	Heat and contact with incompatible materials.
Incompatible Materials	Oxidizing agents (peroxides, permanganates, nitric and chromic acid); hydroxides and other bases; soluble carbonates and phosphates; metals (releases hydrogen); amines; alcohols.
Hazardous Decomposition Products	Carbon oxides.

11 Toxicological Information

See below for route-specific acute toxicity data.

Likely Routes of Exposure	Inhalation, skin contact, eye contact, ingestion.
Symptoms	Causes burns to the skin, eyes and mucous membranes; eye contact may cause permanent damage including blindness; ingestion burns the mouth, throat and stomach. Absorption through the skin may cause systemic poisoning.
Delayed and Chronic Effects	No delayed or chronic effects identified beyond the classification in Section 2.

Route	Value
LD50 Oral (rat)	4413 mg/kg (75% solution, calculated); 3310 mg/kg (pure acetic acid)
LD50 Dermal (rabbit)	1483 mg/kg (75% solution, calculated); 1060–1112 mg/kg (pure acetic acid)

Carcinogen Classification

Agency	Status
IARC	Not listed as carcinogen.
NTP	Not listed as carcinogen.
OSHA	Not listed as carcinogen.

12 Ecological Information

Ecotoxicity	Algae ErC50: 486.5 mg/L (72 h, Desmodesmus subspicatus); Daphnia EC50: 18.9 mg/L (48 h, Daphnia magna (range 18.9–79.5; pH-driven)); Fish LC50: 64.8 mg/L (96 h, Oncorhynchus mykiss (measured))
Persistence & Degradability	Not persistent — Readily biodegradable (96%, 20 d)
Bioaccumulative Potential	log Kow −0.17 (20 °C)
Mobility in Soil	Very high mobility in soil

13 Disposal Considerations

Dispose of contents/container in accordance with applicable federal, state, and local regulations. Do not dispose of into drains or waterways.

If discarded, this material may be a corrosive hazardous waste (EPA RCRA D002, 40 CFR 261.22): aqueous with pH ≤ 2 or ≥ 12.5, or a liquid that corrodes steel at more than 6.35 mm per year. The waste generator must make the final hazardous-waste determination.

14 Transport Information

US DOT (49 CFR)

UN Number	UN2790
Proper Shipping Name	Acetic acid solution, not less than 50 percent but not more than 80 percent acid, by mass
Hazard Class	8
Packing Group	II

IMDG / IATA classifications may differ from US DOT. Verify current regulations before international shipment.

15 Regulatory Information

Inventory / List	Status
California Proposition 65	Not listed

Inventory / List	Status
US EPA TSCA Active Inventory	Listed
EPCRA SARA 313 (TRI)	Not listed
CERCLA Reportable Quantity (RQ)	Acetic acid (CAS 64-19-7) 5,000 lb (2,270 kg), about 6,700 lb of 75% solution.

SARA 311/312 hazard categories correspond to the GHS classification in Section 2. Data retrieved as of: California Proposition 65 2026-11-02; US EPA TSCA Active Inventory 2026-11-02; EPCRA SARA 313 (TRI) 2026-11-02.

16 Other Information

Revision Date	2026-11-12
Format	16-section format per OSHA HCS 2024 (29 CFR 1910.1200, Appendix D), aligned with GHS Rev. 7.

Disclaimer: The information provided in this Safety Data Sheet is correct to the best of our knowledge at the date of publication. It relates only to the specific product identified and does not relate to its use in combination with other materials. ALLIANCE CHEMICAL MAKES NO WARRANTY, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. ALLIANCE CHEMICAL DOES NOT ASSUME LIABILITY FOR LOSS, INJURY, DAMAGE, OR EXPENSE ARISING FROM THE HANDLING, STORAGE, USE, OR DISPOSAL OF THIS PRODUCT.

Alliance Chemical, 204 South Edmond Street, Taylor, TX 76574. Published by Alliance Chemical from first-party canonical product data. Our authority is hands-on chemical handling, DOT/GHS-compliant shipping, and government-registered distribution — not bench chemistry. This Safety Data Sheet is prepared from the regulatory data on file for this product.