Safety Data Sheet · OSHA HCS 2024

Denatured Alcohol 190 Proof 3A Technical Grade

Technical · 95%

Standard	Revised	Emergency
OSHA HCS 2024 · GHS Rev. 7	2026-11-23	Chemtel 1-800-255-3924 (24/7)

1 Identification

Product Identifier	Denatured Alcohol 190 Proof 3A Technical Grade
Grade	Technical
Concentration	95%
CAS Number	64-17-5
Chemical Formula	C2H5OH
Molecular Weight	46.07 g/mol
Manufacturer	Alliance Chemical 204 South Edmond Street, Taylor, TX 76574
Emergency Phone	Chemtel 1-800-255-3924 (24/7)
Synonyms	SDA 3-A; specially denatured alcohol formula 3-A; methanol-denatured ethanol
Recommended Use	Industrial solvent and cleaning agent; extraction; formulation of cleaners, coatings, inks and personal-care products under TTB rules.
Restrictions on Use	Specially denatured alcohol (TTB Formula 3-A, 27 CFR Part 21): not for beverage or internal use. Contains methanol — swallowing it can cause blindness or death, and it cannot be made non-poisonous.

2 Hazard Identification



Flammable



Irritant / harmful



Health hazard

Classification

Flammable liquids, Category 2

Acute toxicity (oral), Category 4

Serious eye damage/eye irritation, Category 2A

Specific target organ toxicity, single exposure, Category 2

Signal Word

Danger

Hazard Statements

H225 Highly flammable liquid and vapor

H302 Harmful if swallowed

H319 Causes serious eye irritation

H371 May cause damage to organs

Precautionary Statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P233 Keep container tightly closed.

P240 Ground and bond container and receiving equipment.

P241 Use explosion-proof electrical, ventilating, and lighting equipment.

P242 Use non-sparking tools.

P243 Take precautionary measures against static discharge.

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

P264 Wash hands and face thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

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

P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.

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

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

P308+P311 IF exposed or concerned: Call a POISON CENTER or doctor.

P337+P313 If eye irritation persists: Get medical advice or attention.

P370+P378 In case of fire: Use alcohol-resistant foam, CO2 or dry chemical powder to extinguish.

P403+P235 Store in a well-ventilated place. Keep cool.

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
Ethanol	64-17-5	C_2H_6O	87-89% (w/w)
Water	7732-18-5	H_2O	6-8% (w/w)
Methanol (denaturant)	67-56-1	CH_4O	4-5% (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

Eye contact causes irritation: redness, pain and tearing.

Ingestion may cause nausea, vomiting and abdominal pain; larger amounts may cause systemic poisoning.

A single exposure may damage organs.

Immediate Medical Attention and Special Treatment	Treat symptomatically. Get medical attention if symptoms develop or persist.

5 Fire-Fighting Measures

Suitable Extinguishing Media	Alcohol-resistant foam, CO2, dry chemical powder. Water spray may be used to cool fire-exposed containers.
Unsuitable Extinguishing Media	Do not use a solid water stream — may scatter and spread fire.
Specific Hazards Arising from the Chemical	Vapors are heavier than air and may form explosive mixtures with air; they can travel to a source of ignition and flash back. Containers may rupture when heated.
Protective Equipment	Wear self-contained breathing apparatus and full protective clothing.
Hazardous Combustion Products	Carbon monoxide and carbon dioxide on combustion; formaldehyde from incomplete combustion of methanol.

6 Accidental Release Measures

Personal Precautions	Use PPE as described in Section 8. Ensure adequate ventilation. Evacuate personnel to safe areas.
Hazard-Specific Precautions	Eliminate all ignition sources. Use non-sparking tools and explosion-proof equipment; ground and bond containers during cleanup.
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 away from heat, sparks, and open flame. Keep away from incompatible materials (see Section 10). Keep containers tightly closed. Ground and bond containers when transferring material.
Specific Storage Precautions	Keep containers tightly closed in a cool, dry, well-ventilated flammables area away from heat, sparks, open flame and direct sunlight. Keep in fireproof surroundings separated from strong oxidizers. Do not store above 49 °C (120 °F). Ground and bond containers when transferring.

8 Exposure Controls / Personal Protection

Occupational Exposure Limits

Limit	Value
OSHA PEL	1000 ppm TWA (CAS 64-17-5); 200 ppm TWA (CAS 67-56-1)
ACGIH TLV	1000 ppm STEL (CAS 64-17-5); 200 ppm TWA / 250 ppm STEL, Skin (CAS 67-56-1)

Limit	Value
NIOSH REL	1000 ppm TWA (CAS 64-17-5); 200 ppm TWA / 250 ppm STEL (CAS 67-56-1)
IDLH	3300 ppm (CAS 64-17-5); 6000 ppm (CAS 67-56-1)

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	Use a NIOSH-approved respirator with organic vapor cartridges. For confined spaces or exposures above the OEL, use supplied-air respiratory protection.

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

9 Physical & Chemical Properties

Appearance	Clear, colorless liquid
Odor	Alcohol-like odor
Odor Threshold	No data available
pH	No data available
Melting Point / Freezing Point	About -114 °C (-173 °F) (ethanol)
Boiling Point	About 78 °C (172–173 °F) (ethanol)
Flash Point	13–16 °C (55–61 °F), closed cup
Evaporation Rate	No data available
Flammability (solid, gas)	No data available
Upper/Lower Flammability or Explosive Limits	LEL 3.3% / UEL 19% (v/v in air, ethanol)
Vapor Pressure	43–45 mmHg at 20 °C
Vapor Density	1.6 (air = 1)
Relative Density	0.80–0.81 at 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	About 1.1 mm^2/s at 40 °C
Particle Characteristics	Not applicable
Form	Liquid
Density	0.79 g/cm^3 at 68 °F (USCG, 1999)

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, sparks, open flame, static discharge and other ignition sources. Burns with a pale, nearly invisible flame.
Incompatible Materials	Strong oxidizing agents (peroxides, nitric acid, perchlorates, hypochlorites); strong acids; alkali metals; ammonia; acid anhydrides.
Hazardous Decomposition Products	Carbon monoxide and carbon dioxide on combustion; formaldehyde from incomplete combustion of methanol.

11 Toxicological Information

See below for route-specific acute toxicity data.

Likely Routes of Exposure	Inhalation, skin contact, eye contact, ingestion.
Symptoms	Eye contact causes irritation: redness, pain and tearing. Ingestion may cause nausea, vomiting and abdominal pain; larger amounts may cause systemic poisoning. A single exposure may damage organs.
Delayed and Chronic Effects	No delayed or chronic effects identified beyond the classification in Section 2.

Route	Value
LD50 Oral	Ethanol 7,060–10,470 mg/kg (rat); methanol 5,600–6,200 mg/kg (rat), but humans are far more sensitive — methanol causes blindness and death at much lower doses. ATE for the mixture about 2,100 mg/kg (methanol 100 mg/kg acute-toxicity estimate).
LD50 Dermal (rabbit)	Ethanol > 2,000 mg/kg; methanol ATE 300 mg/kg (ATE for the mixture > 6,000 mg/kg)
LC50 Inhalation (rat, 4h)	Ethanol 124.7 mg/L (vapor); methanol ATE 3 mg/L (ATE for the mixture > 20 mg/L)

Carcinogen Classification

Agency	Status
IARC	Group 1 — carcinogenic to humans (Ethanol; IARC agent: Ethanol in alcoholic beverages, Vol. 96, 100E).
NTP	Known to be a human carcinogen (Ethanol; NTP listing: Alcoholic Beverage Consumption).
OSHA	No substance-specific standard in 29 CFR 1910 Subpart Z; not classified as a carcinogen under the Hazard Communication Standard (29 CFR 1910.1200) as supplied. See Section 2 and the scope note.

Scope: the IARC and NTP listings apply to ethanol in alcoholic beverages, not to ethanol used as a solvent.

12 Ecological Information

Ecotoxicity	Algae ErC50: ~ 1450 mg/L (Microcystis aeruginosa — cell-multiplication inhibition threshold); Fish LC50: 11200 mg/L (24 h, Oncorhynchus mykiss (flow-through, 10 °C); 24-h window)
Persistence & Degradability	Not persistent; rapid aerobic biodegradation — Readily biodegradable (89% ThBOD in 2 wk, activated sludge)
Bioaccumulative Potential	log Kow −0.31, BCF 3 (estimated; low)
Mobility in Soil	Very high soil mobility (log Koc 0.20)

13 Disposal Considerations

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

EPA RCRA Waste Codes	D001 (ignitable). Not U154: methanol is a denaturant, not the sole active ingredient.

If discarded, this material may be an ignitable hazardous waste (EPA RCRA D001, 40 CFR 261.21(a)(1): flash point below 60 °C; aqueous solutions with less than 24% alcohol by volume are excluded). The waste generator must make the final hazardous-waste determination.

14 Transport Information

US DOT (49 CFR)

UN Number	UN1987
Proper Shipping Name	Alcohols, n.o.s.
Hazard Class	3
Packing Group	II
Additional US DOT Requirements	Inner packagings of 1 L or less may ship as Limited Quantity (49 CFR 173.150(b)). Not a marine pollutant.

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

15 Regulatory Information

Inventory / List	Status
California Proposition 65	Contains Methanol (denaturant) (CAS 67-56-1) at 4-5%; listed.
US EPA TSCA Active Inventory	Listed
EPCRA SARA 313 (TRI)	Contains Methanol (denaturant) (CAS 67-56-1) at 4-5%; listed (de minimis 1.0%).
CERCLA Reportable Quantity (RQ)	Methanol (CAS 67-56-1) 5,000 lb (2,270 kg), about 104,000 lb of this product at 4.8% methanol; no single package reaches it. Methanol is EPCRA Section 313 (TRI) listed, de minimis 1.0%.

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	2026-11-23
Format	16-section format per OSHA HCS 2024 (29 CFR 1910.1200, Appendix D), aligned with GHS Rev. 7.

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