Petroleum Ether ACS Reagent Grade

ACS Reagent

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

1 Identification

Product Identifier	Petroleum Ether ACS Reagent Grade
Grade	ACS Reagent
CAS Number	8032-32-4
Manufacturer	Alliance Chemical 204 South Edmond Street, Taylor, TX 76574
Emergency Phone	Chemtel 1-800-255-3924 (24/7)
Synonyms	Ligroine; petroleum spirit; benzine (35–60 °C boiling fraction)
Recommended Use	Laboratory solvent (ACS reagent): extraction of fats and oils, chromatography and recrystallization.
Restrictions on Use	Not for use as a fuel or in consumer products. Extremely flammable and may cause cancer: use only with adequate ventilation, away from ignition sources, by trained personnel.

2 Hazard Identification



Flammable



Irritant / harmful



Health hazard

Classification

Flammable liquids, Category 2

Aspiration hazard, Category 1

Specific target organ toxicity, single exposure, Category 3 (narcotic effects)

Germ cell mutagenicity, Category 1

Carcinogenicity, Category 1

Signal Word

Danger

Hazard Statements

H225 Highly flammable liquid and vapor

H304 May be fatal if swallowed and enters airways

H336 May cause drowsiness or dizziness

H340 May cause genetic defects

H350 May cause cancer

Precautionary Statements

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

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.
P261 Avoid breathing dust, fume, gas, mist, vapors or spray.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves, protective clothing, and eye/face protection.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor.
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.
P308+P313 IF exposed or concerned: Get medical advice or attention.
P312 Call a POISON CENTER or doctor if you feel unwell.
P331 Do NOT induce vomiting.
P370+P378 In case of fire: Use alcohol-resistant foam, CO2 or dry chemical powder to extinguish.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
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
Petroleum Ether	8032-32-4	C_5-C_6 Hydrocarbons	100% (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
Aspiration into the lungs, for example during vomiting, may cause chemical pneumonitis, which can be fatal.

Inhalation of vapors may cause drowsiness, dizziness, headache and nausea.

Immediate Medical Attention and Special Treatment
Aspiration hazard: if swallowed, do not induce vomiting and get medical attention immediately. Note to physician: observe for chemical pneumonitis; protect the airway before any gastric procedure.

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, carbon dioxide and unburned hydrocarbons on combustion.

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 tightly closed in a cool, well-ventilated flammables area away from heat, ignition sources and oxidizers. Ground and bond containers. Store locked up.

8 Exposure Controls / Personal Protection

Occupational Exposure Limits

Limit	Value
OSHA PEL	None (CAS 8032-32-4)
NIOSH REL	350 mg/m^3 TWA; 1,800 mg/m^3 Ceiling (15 min) (CAS 8032-32-4)

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 air-purifying respirator with cartridges appropriate for the contaminant. For higher exposures or confined spaces, use supplied-air or a powered air-purifying respirator (PAPR).

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

9 Physical & Chemical Properties

Appearance	Clear, colorless liquid
Odor	Petroleum (gasoline-like) odor
Odor Threshold	No data available
pH	No data available
Melting Point / Freezing Point	No data available
Boiling Point	35–60 °C (95–140 °F) boiling range
Flash Point	Below -18 °C (0 °F), closed cup
Evaporation Rate	No data available
Flammability (solid, gas)	No data available
Upper/Lower Flammability or Explosive Limits	LEL 1.1% / UEL 5.9% (v/v in air)
Vapor Pressure	About 540 mmHg (724 hPa) at 20 °C
Vapor Density	No data available
Relative Density	0.64–0.66 at 20 °C (water = 1)
Solubility	Insoluble in water; miscible with most organic solvents
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

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. Vapors are heavier than air and can travel to a distant ignition source and flash back.
Incompatible Materials	Strong oxidizing agents (peroxides, nitric acid, perchlorates, chlorine); strong acids.
Hazardous Decomposition Products	Carbon monoxide, carbon dioxide and unburned hydrocarbons on combustion.

11 Toxicological Information

See below for route-specific acute toxicity data.

Likely Routes of Exposure	Inhalation, skin contact, eye contact, ingestion.

Symptoms	Aspiration into the lungs, for example during vomiting, may cause chemical pneumonitis, which can be fatal. Inhalation of vapors may cause drowsiness, dizziness, headache and nausea.
Delayed and Chronic Effects	Carcinogenicity: may cause or is suspected of causing cancer after long-term exposure (see the carcinogen classification below). Germ cell mutagenicity: may cause or is suspected of causing genetic defects.

Route	Value
LD50 Oral	> 5,840 mg/kg (rat)
LD50 Dermal (rabbit)	> 2,920 mg/kg
LC50 Inhalation	3,400 ppm (rat, 4 h)

Carcinogen Classification

Agency	Status
IARC	Not listed as carcinogen.
NTP	Not listed as carcinogen.
OSHA	No substance-specific standard in 29 CFR 1910 Subpart Z; classified as a carcinogen under the Hazard Communication Standard (29 CFR 1910.1200). See Section 2.

12 Ecological Information

Ecotoxicity	Data not available. Avoid release to the environment.
Persistence & Degradability	Not Available
Bioaccumulative Potential	Not Available
Mobility in Soil	Not Available

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 a P- or U-listed waste.

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	UN1268
Proper Shipping Name	Petroleum distillates, n.o.s. (Petroleum ether)
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)).

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
US EPA TSCA Active Inventory	Listed
EPCRA SARA 313 (TRI)	Not listed
CERCLA Reportable Quantity (RQ)	Not a CERCLA hazardous substance (petroleum exclusion, CERCLA §101(14)); no RQ. Not an EPCRA Section 313 chemical as such.

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.

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