

SAFETY DATA SHEET

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

1.1 Product identifiers

Product name: Petroleum Ether
CAS number: 8032-32-4
Synonyms: Ligroine; Benzine; Naphtha Petroleum; Naphtha Solvent (Optima/Pesticide/
Certified ACS)

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified Uses: Solvent, blowing agent for polystyrene, chemical intermediate.

1.3 Details of the supplier of the safety data sheet

Company : Lab Alley, LLC
22111 Highway 71 West, Suite 601
Spicewood, Texas 78669
U.S.A.

Telephone : 512-668-9918
Fax : 512-886-4008

1.4 Emergency telephone

Emergency Phone # : US & Canada: 1-800-535-5053 INFOTRAC
International 1-352-323-3500 INFOTRAC

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Flammable liquid (Category 2)
Eye irritation (Category 2B)
Skin irritant (Category 2)
Specific target organ systemic toxicity - single exposure (Category 3)
Aspiration hazard (Category 1)
Acute aquatic toxicity (Category 2)
Chronic aquatic toxicity (Category 2)

2.2 GHS Label elements, including precautionary statements

Pictogram:



Signal Word:

Danger

Hazard statement(s):

Highly flammable liquid and vapor. May be fatal if swallowed and enters airways. Causes skin irritation. Causes eye irritation. May cause drowsiness or dizziness. Harmful to aquatic life. Toxic to aquatic life with long lasting effects.

Precautionary statement(s):

Prevention - Keep away from heat, open flames and hot surface. No smoking. Wash hands thoroughly after handling. Ground/bond container and receiving equipment. Use explosion proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Avoid release into the environment. Wear protective gloves/protective clothing/eye protection/face protection.
Response - IF SWALLOWED: Get emergency medical help immediately, call a POISON CENTER or doctor/physician. IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical help if you feel unwell. Do NOT induce vomiting. IF SKIN irritation occurs get medical help. If eye irritation persists: Get medical help. Take off contaminated clothing and wash it before reuse. In case of fire: Use foam, carbon dioxide or dry powder for extinction. Collect spillage. Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up. Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazards not otherwise classified

No data available.

SECTION 3: Composition/information on ingredients

3.1 Components

Ingredient	CAS Number	Percent	Hazardous Chemical
n-Pentane	109-66-0	73-77%	Yes
Isopentane	78-78-4	<1%	Yes
Hexane, mixed isomers	92112-69-1	23-27%	Yes

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice:

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled:

If breathing difficulties, dizziness, or light-headedness occur when working in areas with high vapor concentrations, remove victim to fresh air. If victim experiences continued breathing difficulties, keep patient warm and at rest, and seek medical attention. If breathing stops, begin artificial respiration and seek immediate medical attention.

In case of eye contact:	If this product comes into contact with the eyes, flush with large quantities of water for several minutes, while gently holding the eyelids open. Seek medical attention if irritation persists.
In case of skin contact:	If this product comes into contact with the skin, wash with soap and water. Seek medical attention if irritation persists. Remove and wash contaminated clothing before re-use.
In case of ingestion:	If this product is swallowed, DO NOT INDUCE VOMITING. Give small quantities (<250 ml) of water to drink. Never give anything by mouth to an unconscious person. Seek immediate medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation: Petroleum ether may cause dizziness and drowsiness if inhaled, and high concentrations may result in central nervous system depression, and loss of consciousness. **Ingestion:** Symptoms of ingestion may include nausea, vomiting, as well as symptoms of dizziness, drowsiness and central nervous system depression. If vomiting occurs, petroleum ether may be aspirated into the lungs, with a risk of chemical pneumonitis.

4.3 Indication of any immediate medical attention and special treatment needed

If ingested or inhaled seek medical attention immediately.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable (and unsuitable) extinguishing media

Small fires: Use foam, carbon dioxide or dry powder extinguisher.
Large fires: Use foam to extinguish fires. Water spray should not be used, as petroleum ether is lighter than water and may form pools of burning liquid on top of water. Keep adjacent containers cool using water spray.

5.2 Specific hazards arising from the substance or mixture

Petroleum ether is extremely flammable. Remove all sources of ignition. Vapors are heavier than air and may travel considerable distances to a source of ignition and flash back. Vapor/air mixtures may be explosive. Electrostatic discharges may cause fire and/or explosion.

5.3 Special protective equipment and precautions for firefighters

Wear positive pressure Self Contained Breathing Apparatus.

5.4 Further information

Evacuation: If tank, rail car, or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions, also, consider initial evacuation for 300 meters (1/2 mile) in all directions.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Remove all ignition sources and evacuate unnecessary personnel from the area. Ventilate the area if possible. Wear suitable protective clothing including solvent resistant gloves and coveralls. If vapor concentrations are high, respiratory protective equipment may be required. See section 8 for more information.

6.2 Environmental precautions

Prevent entry into sewers and watercourses. If product enters sewers or watercourses, inform the appropriate environmental authorities.

6.3 Methods and materials for containment and cleaning up

Small spills: Remove all ignition sources. Use non-sparking hand tools. Take precautions to avoid electrostatic discharge. Absorb spillage in a non-combustible absorbent, e.g. sand or vermiculite, and place in a suitable container for disposal. Large spills: Remove all ignition sources. Use non-sparking hand tools. Contain spill and cover if possible to reduce evaporation. Transfer to a suitable container by mechanical means. Take precautions to avoid static discharge, e.g. by grounding containers, etc. Consider initial downwind evacuation for at least 300 meters (1,000 feet).

6.4 Reference to other sections

For disposal see Section 13. Refer to section 8 of SDS for personal protection details.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Use only in well ventilated areas. Petroleum ether is extremely flammable. Avoid contact with all ignition sources, including hot surfaces. Take precautions to avoid electrostatic discharges, such as grounding of containers and equipment, and restricting flow rates. Vapors are heavier than air and may accumulate in low lying areas and below ground areas such as ducts and sewers.

Hygiene measures

No data available.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Store in a well ventilated area, away from all ignition sources. If stored in drums, keep out of direct sunlight.

SECTION 8. Exposure controls/personal protection

8.1 Occupational exposure limits

Substance	TWA	IDLH	Source
n-Pentane	1000 ppm, 3000 mg/m ³		OSHA
n-Pentane	600 ppm, 1800 mg/m ³		ACGIH
Isopentane	600 ppm, 1800 mg/m ³		ACGIH
Hexane	50 ppm, 180 mg/m ³		NIOSH
Hexane		1100 ppm	NIOSH

8.2 Exposure controls

Appropriate engineering controls

Ensure there is sufficient ventilation of the area. The floor of the storage room must be impermeable to prevent the escape of liquids. General mechanical ventilation may be sufficient to keep product vapor concentrations within specified time-weighted TLV ranges. If general ventilation proves inadequate to maintain safe vapor concentrations, supplemental local exhaust may be required. Other special precautions such as respiratory masks or environmental containment devices may be required in extreme cases.

Personal protective equipment

Eye/face protection

Wear suitable eye protection, safety glasses or goggles, when handling this product.

Skin and body protection

Aprons or coveralls made of fire retardant material are recommended. These should be changed after use or if contaminated. Wash before re-use. Wear suitable chemical resistant gloves recommended for use with hydrocarbon solvent. Nitrile gloves may be suitable, but glove manufacturers' specifications should always be checked first. Natural rubber gloves are not suitable. Change gloves in accordance with manufacturer recommendations. If gloves are damaged during use, remove immediately and wash hands before replacing with new gloves.

Respiratory protection

Use only in well ventilated area. If high exposure levels are likely, then suitable respiratory protection will be required. Very high vapor concentrations may result in oxygen displacement and self-contained breathing apparatus or airline may be required.

Control of environmental exposure

Prevent entry into sewers and watercourses. If product enters sewers or watercourses, inform the appropriate environmental authorities.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State	Liquid.
Appearance	Colorless.
Odor	Gasoline-like.
Odor Thresh	Not available.
pH	Not available.
Melting Point/Range	Not available.
Boiling Point/Range	100-140°F/35-60°C
Flash Point	-40°F/-40°C
Evaporation Rate	Not available.
Flammability (solid, gas)	Not available.
Flammability or explosive limit	
	Upper : 8.3% (v)
	Lower : 1.4% (v)
Vapor Pressure	14.0 psia
Vapor Density	Not available.
Density	0.64 kg/l
Solubility	Negligible.
Partition coefficient; n-octanol/water	Not available.
Autoignition Temp	Not available.
Decomposition Temp	Not available
Viscosity	Not available.
Molecular Formula	C6-16H12-34
Molecular Weight	82.2
VOC Content(%)	Not available.
Oxidizing properties	Not applicable.

9.2 Other safety information

None.

SECTION 10: Stability and reactivity

10.1 Reactivity

Stable under normal conditions.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4 Conditions to avoid

Keep away from sources of ignition.

10.5 Incompatible materials

This product is incompatible with strong oxidizing agents, strong acids and bases, and selected amines.

10.6 Hazardous decomposition products

None.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Harmful when inhaled in high concentrations or ingested. Petroleum ether may cause dizziness and drowsiness if inhaled, and high concentrations may result in central nervous system depression, and loss of consciousness. Symptoms of ingestion may include nausea, vomiting, as well as symptoms of dizziness, drowsiness and central nervous system depression. If vomiting occurs, petroleum ether may be aspirated into the lungs, with a risk of chemical pneumonitis.

Skin corrosion/irritation

Not corrosive.

Serious eye damage/eye irritation

Petroleum ether can be irritating to the eye, may cause redness.

Respiratory or skin sensitization

Not known to be a sensitizer.

Germ cell mutagenicity

Not expected to be mutagenic.

Carcinogenicity

Not expected to be carcinogenic.

Reproductive toxicity

Not expected to be toxic to reproduction.

Specific target organ toxicity - single exposure

No data available.

Specific target organ toxicity - repeated exposure

Prolonged or repeated contact of this product will result in defatting of the skin, causing dryness and cracking.

Aspiration hazard

Harmful when inhaled in high concentrations or ingested.

Chronic effects

No data available.

11.2 Additional information

Petroleum ether may cause dizziness and drowsiness if inhaled and high concentrations may result in central nervous system depression, and loss of consciousness. Symptoms of ingestion may include nausea, vomiting, as well as symptoms of dizziness, drowsiness and central nervous system depression. If vomiting occurs, petroleum ether may be aspirated into the lungs, with a risk of chemical pneumonitis.

SECTION 12. Ecological information**12.1 Toxicity**

Ecotoxicity: Petroleum ether is classified as toxic to aquatic organisms and likely to cause long term effects in the environment.

12.2 Persistence and Degradability

Petroleum ether is readily biodegradable in aquatic systems, however, in view of its high evaporation rate, petroleum ether is expected to volatilize rapidly from water sources into the atmosphere, where it will be degraded by photochemical reaction.

12.3 Bioaccumulative Potential

No data available.

12.4 Mobility in Soil

No data available.

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Endocrine disrupting properties

No data available.

12.7 Other adverse effects

No further details.

SECTION 13. Disposal considerations

13.1 Waste Disposal Methods

Recover and recycle product if possible. If recovery and recycling are not possible, petroleum ether may be disposed of by incineration. Please follow all local, regional, national and international laws.

SECTION 14: Transport information

DOT

UN-No	UN1268
Proper Shipping Name	Petroleum Distillates, n.o.s. (pentanes, hexanes)
Hazard Class	3
Packing Group	II

ICAO/IATA

UN-No	UN1268
Proper Shipping Name	Petroleum Distillates, n.o.s.
Hazard Class	3
Packing Group	II

IMO/IMDG

UN-No	UN1268
Proper Shipping Name	Petroleum Distillates, n.o.s.
Hazard Class	3
Packing Group	II

RID/ADR

UN-No	UN1268
Proper Shipping Name	Petroleum Distillates, n.o.s.
Hazard Class	3
Packing Group	II

SECTION 15: Regulatory information

Clean Air Act

- This product neither contains nor was it manufactured with any class 1 or class 2 ozone depleting substances.
- Under Section 112 (r), 40 CFR Part 68, the threshold quantity for both n-pentane and isopentane is 10,000 lbs.

Emergency Planning and Community Tight-To -Know Act (EPCRA)

- Section 302- This product does not contain any constituents that are classified as an extremely hazardous substance.
- Section 311/312 (Tier II) - This product is considered a fire hazard and an acute health hazard.
- Section 313- This product contains hexane which is considered a toxic chemical.

California Office of Environmental Health Hazard Assessment

- Proposition 65- This product contains none of the chemicals which may cause cancer or birth defects as listed in this legislation.

Coalition of Northeast Governors (CONEG)

- This product contains no lead, mercury, cadmium, or hexavalent chromium.

New Jersey Right-to-Know

- All of the compounds in this product except for 3-methylpentane appear on this state's hazardous substance list.

Pennsylvania Right-to-Know

- All of the compounds in this product appear on this state's hazardous substance list.

Toxic Substance Control Act (TSCA)

- All constituents of this product are listed in TSCA.

SECTION 16: Other information

Issue Date	11/16/2022
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Disclaimer:

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.