

MATERIAL SAFETY DATA SHEET (MSDS)

PETROLEUM ETHER 40 - 60° C AR (PETROLEUM SPIRIT)

1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name : PETROLEUM ETHER 40 - 60° C AR (PETROLEUM SPIRIT)

Product code : SS0104200500

Identification of the product : Ligroine
 CAS No: 8032-32-4
 EC No :232-453-7
 Annex No :649-263-00-9

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

Use : Industrial. For professional use only.

1.3. Details of the supplier of the safety data sheet

Company identification : SUVCHEM
 Chaitanya Tower, 2nd Floor, Office # 206,
 Siddharth Nagar, S.V. Road,
 Goregaon (West), Mumbai - 400062,
 Maharashtra, India.
 Contact: +91 22 28725393 / 94 / 95
 Email ID: info@suvchem.com/care@suvchem.com

1.4. Emergency telephone number

Phone no. : + 91 22 28725393 / 94 / 95 (9:00am - 6:00 pm) [Office hours]

2. Hazards identification -DSD

2.1. Classification of the substance or mixture

Classification EC 67/548 or EC 1999/45

Classification : F; R11
 Carc. Cat. 2; R40
 Muta. Cat. 2; R68
 Xn; R65-48/20
 R67
 Xi; R38
 N; R51-53

Hazard Class and Category Code(s), Regulation (EC) No 1272/2008 (CLP)

Health hazards : Carcinogenicity - Category 1B - Danger (CLP : Carc. 1B) H350
 Specific Target Organ Toxicity - Single exposure - Narcotic effects - Category 3 -
 Warning (CLP : STOT SE 3) H336
 Specific Target Organ Toxicity - Repeated exposure - Category 2 - Warning (CLP :
 STOT RE 2) H373

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2. Hazards identification -DSD (continued)
Physical hazards
Environmental hazards

Aspiration hazard - Category 1 - Danger (CLP : Asp. Tox. 1) H304
 Skin irritation - Category 2 - Warning (CLP : Skin Corr. 2) H315
 Germ cell mutagenicity - Category 1B - Danger (CLP : Muta. 1B) H340
 : Flammable liquids - Category 2 - Danger (CLP : Flam. Liq. 2) H225
 : Hazardous to the aquatic environment - Chronic hazard - Category 2 (CLP : Aquatic Chronic 2) H411

2.2. Label elements
Labelling EC 67/548 or EC 1999/45
Symbol(s)

Symbol(s)

: F : Highly flammable
 N : Dangerous for the environment
 Xn : Harmful

R Phrase(s)

: R11 : Highly flammable.
 R38 : Irritating to skin.
 R48/20 : Harmful : danger of serious damage to health by prolonged exposure through inhalation.
 R51/53 : Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
 R62 : Possible risk of impaired fertility.
 R65 : Harmful : may cause lung damage if swallowed.
 R67 : Vapours may cause drowsiness and dizziness.

S Phrase(s)

: S26 : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 S61 : Avoid release to the environment. Refer to special instructions/Safety data sheets.
 S62 : If swallowed, do not induce vomiting : seek medical advice immediately and show this container or label.

Contains

: Ligroine

Labelling Regulation EC 1272/2008 (CLP)
Hazard pictograms

Signal words

: Danger

Hazard statements

: H225 : Highly flammable liquid and vapour.
 H304 : May be fatal if swallowed and enters airways.
 H350 : May cause cancer.
 H340 : May cause genetic defects.

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2. Hazards identification -DSD (continued)

H315 : Causes skin irritation.
 H336 : May cause drowsiness or dizziness.
 H373 : May cause damage to organs through prolonged or repeated exposure.
 H411 : Toxic to aquatic life with long lasting effects.

Precautionary statements
• General

: P201: Obtain special instructions before use.

• Prevention

: P240: Ground/bond container and receiving equipment.
 P241: Use explosion-proof electrical, ventilating, lighting, ..., equipment.
 P210: Keep away from heat, sparks, open flames or hot surfaces. - No smoking.
 P280: Wear protective gloves, protective clothing, eye protection, face protection.
 P271: Use only outdoors or in a well-ventilated area.
 P260: Do not breathe dust, fume, gas, mist, vapours, spray.
 P273: Avoid release to the environment.
 P233: Keep container tightly closed.
 P264: Wash thoroughly after handling.

• Response

: P301+P310: IF SWALLOWED : Immediately call a POISON CENTER or doctor.
 P302+P352: IF ON SKIN : Wash with plenty of soap and water.
 P308+P313: If exposed or concerned : get medical advice.
 P332+P313: If skin irritation occurs : Get medical advice.
 P391: Collect spillage.
 P304+P340: IF INHALED : Remove to fresh air and keep at rest in a position comfortable for breathing.
 P303+P361+P353: IF ON SKIN (or hair) : Remove immediately all contaminated clothing. Rinse skin with water/shower.
 P363: Wash contaminated clothing before reuse.
 P314: Get medical advice if you feel unwell.
 P370+P378: In case of fire: Use for extinction.

• Storage

: P403+P233: Store in well-ventilated place. Keep container tightly closed.
 P403+P235: Store in well-ventilated place. Keep cool.
 P405: Store locked up.

• Disposal considerations

: P501: Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Special labelling

: Restricted to professional users. (Substances which appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008)

Contains

: Ligroine

2.3. Other hazards
Other hazards

: The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

3. Composition/information on ingredients
Substance / Preparation

: Ligroine

EC No :232-453-7

Annex No :649-263-00-9

CHAITANYA CHS, 2nd FLOOR, OFFICE # 206, SIDDHARTH NAGAR, S.V.ROAD, GOREGAON (W), MUMBAI 400062, MH, INDIA.
 CONTACT: +9122 28725393 /94/ 95 | EMAILID: CARE@SUVCHEM.COM

MATERIAL SAFETY DATA SHEET (MSDS)
PETROLEUM ETHER 40 - 60° C AR (PETROLEUM SPIRIT)
3. Composition/information on ingredients (continued)

Substance.						
Substance name	Contents	CAS No	EC No	Annex No	REACH Ref.	Classification
Ligroine	100 %	8032-32-4	232-453-7	649-263-00-9	----	F; R11 Carc. Cat. 2; R40 Muta. Cat. 2; R68 Xn; R62 Xn; R65-48/20 R67 Xi; R38 N; R51-53 ----- Flam. Liq. 2 _ H225 Carc. 1B _ H350 Muta. 1B _ H340 Asp. Tox 1 _ H304 Skin Irrit. 2 _ H315 STOT RE 2 _ H373 STOT SE 3 _ H336 Aquatic Chronic 2 _ H411

Contains no other components or impurities which will influence the classification of the product.

4. First aid measures
4.1. Description of first aid measures

Inhalation	: Call a POISON CENTER or doctor if you feel unwell. Remove to fresh air and keep at rest in a position comfortable for breathing.
Skin contact	: Wash with plenty of soap and water. Remove/Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. Specific treatment (see on this label). Get medical advice. If skin irritation occurs :
Eye contact	: Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.
Ingestion	: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms relating to use	: May cause cancer. May cause genetic defects. Causes damage to organ. May be fatal if swallowed and enters airways. Causes skin irritation. May cause drowsiness or dizziness.
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4.3. Indication of any immediate medical attention and special treatment needed

General information	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
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5. Fire-fighting measures
5.1. Extinguishing media

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5. Fire-fighting measures (continued)

- Suitable extinguishing media** : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
- Unsuitable extinguishing media** : Do not use a heavy water stream.
- Surrounding fires** : Use water spray or fog for cooling exposed containers.

5.2. Special hazards arising from the substance or mixture

- Flammable class** : Highly flammable liquid and vapour.
- Hazardous combustion products** : Under fire conditions, hazardous fumes will be present.

5.3. Advice for fire-fighters

- Protection against fire** : Do not enter fire area without proper protective equipment, including respiratory protection.
- Special procedures** : Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.

6. Accidental release measures
6.1. Personal precautions, protective equipment and emergency procedures

- For emergency responders** : Equip cleanup crew with proper protection.
Ventilate area.
Avoid breathing dust, fume, gas, mist, vapours, spray.
- Technical measures** : Use special care to avoid static electric charges.
- Special precautions** : Remove ignition sources. No naked lights. No smoking.
- For non-emergency personnel** : Evacuate unnecessary personnel.

6.2. Environmental precautions

- Environmental precautions** : Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.
Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

- Clean up methods** : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

See section 8. Exposure controls/personal protection

MATERIAL SAFETY DATA SHEET (MSDS)
PETROLEUM ETHER 40 - 60° C AR (PETROLEUM SPIRIT)
7. Handling and storage
7.1. Precautions for safe handling

Handling	: Handle empty containers with care because residual vapours are flammable. Wash thoroughly after handling. Obtain special instructions before use. Eliminate all ignition sources if safe to do so. Use only outdoors or in a well-ventilated area.
Technical protective measures	: Provide good ventilation in process area to prevent formation of vapour. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof electrical, ventilating, lighting, ..., equipment.
Special precautions	: No naked lights. No smoking. Avoid breathing dust, fume, gas, mist, vapours, spray.

7.2. Conditions for safe storage, including any incompatibilities

Storage	: Keep only in the original container in a cool, well ventilated place. Keep in fireproof place. Ground/bond container and receiving equipment. Keep container tightly closed.
Storage - away from	: Strong bases. Strong acids. Sources of ignition. Direct sunlight. Heat sources.

7.3. Specific end use(s)

Specific end use(s)	: None.
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8. Exposure controls/personal protection
8.1. Exposure controls

Personal protection	: Avoid all unnecessary exposure.
• Respiratory protection	: Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Wear respiratory protection.
• Hand protection	: Wear protective gloves.
• Skin protection	: Wear suitable protective clothing.
• Eye protection	: Chemical goggles or safety glasses.
• Others	: When using, do not eat, drink or smoke.

8.2. Control parameters

Occupational Exposure Limits	: No data available.
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PETROLEUM ETHER 40 - 60° C AR (PETROLEUM SPIRIT)
9. Physical and chemical properties
9.1. Information on basic physical and chemical properties

Physical state at 20 °C	: Liquid.
Colour	: Clear Colorless
Odour	: Gasoline or kerosene
Odour threshold	: No data available.
pH value	: No data available.
Melting point [°C]	: < -730C
Decomposition point [°C]	: N/A
Critical temperature [°C]	: N/A
Auto-ignition temperature [°C]	: 2880C
Flammability (solid, gas)	: Flammable. Highly flammable liquid and vapour.
Flash point [°C]	: -40°C
Boiling point [°C]	: 40 - 60 °C
Initial boiling point [°C]	: 40 °C
Final boiling point [°C]	: 60 °C
Evaporation rate	: 10
Vapour pressure [20°C]	: 40 mm Hg @ 20C
Vapour pressure mm/Hg	: 40 mm Hg @ 20C
Vapour density	: 2,5
Density [g/cm3]	: 0.60 - 0.75
Relative density, gas (air=1)	: N/A
Relative density, liquid (water=1)	: N/A
Solubility in water [% weight]	: Insoluble.
Solubility in water	: N/A
Log Pow octanol / water at 20°C	: No data available.
Solubility	: N/A
Viscosity at 40°C [mm2/s]	: N/A

9.2. Other information

Explosive properties	: N/A
Explosion limits - upper [%]	: 5,90%
Explosion limits - lower [%]	: 1,10%
Oxidising properties	: No data available.

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10. Stability and reactivity
10.1. Reactivity

Reactivity : Not established.

10.2. Chemical stability

Chemical stability : Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions : Not established.

10.4. Conditions to avoid

Conditions to avoid : Direct sunlight. Extremely high or low temperatures. Open flame.

10.5. Incompatible materials

Materials to avoid : Strong acids. Strong bases.

10.6. Hazardous decomposition products

 Hazardous decomposition products : Fumes. Carbon monoxide. Carbon dioxide.
May release flammable gases.

11. Toxicological information
11.1. Information on toxicological effects
Acute toxicity

- Inhalation : May be fatal if swallowed and enters airways.
- Dermal : Based on available data, the classification criteria are not met.
- Ingestion : May be fatal if swallowed and enters airways.

Corrosion : Based on available data, the classification criteria are not met.

Irritation : Causes skin irritation.

Sensitization : Based on available data, the classification criteria are not met.

Mutagenicity : May cause genetic defects.

Carcinogenicity : May cause cancer.

Toxic for reproduction : Based on available data, the classification criteria are not met.

STOT-single exposure : May cause drowsiness or dizziness.

STOT-repeated exposure : May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard : May be fatal if swallowed and enters airways.

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12. Ecological information

12.1. Toxicity

Toxicity information : Toxic to aquatic life with long lasting effects.

12.2. Persistence - degradability

Persistence - degradability : May cause long-term adverse effects in the environment.

12.3. Bioaccumulative potential

Bioaccumulative potential : Not established.

12.4. Mobility in soil

Mobility in soil : Not established.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment : The substance does not fulfil the criteria to be identified as PBT substance or vPvB substance according to Annex XIII of Regulation REACH.

12.6. Other adverse effects

Environmental precautions : Avoid release to the environment.

13. Disposal considerations

13.1. Waste treatment methods

General : Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations.
 Dispose of this material and its container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Special precautions : Handle empty containers with care because residual vapours are flammable.
 Hazardous waste due to toxicity.

14. Transport information

14.1. Land transport (ADR-RID)

Proper shipping name : PETROLEUM DISTILLATES, N.O.S. or PETROLEUM PRODUCTS, N.O.S. (vapour pressure at 50 °C more than 110 kPa)

UN N° : 1268

MATERIAL SAFETY DATA SHEET (MSDS)
PETROLEUM ETHER 40 - 60° C AR (PETROLEUM SPIRIT)
14. Transport information (continued)

H.I. nr : 33
 ADR - Class : 3
 Labelling - Transport : 3 : Flammable liquid.



ADR - Classification code : F1
 ADR - Group : II
 ADR - Packing instructions : P001
 ADR - Limited Quantity : 1 L
 ADR - Tunnel code



: D/E : Bulk or tank carriage: Passage forbidden through tunnels of category D and E. Other carriage: Passage forbidden through tunnels of category E.

14.2. Sea transport (IMDG) [English only]

Proper shipping name : PETROLEUM DISTILLATES, N.O.S. or PETROLEUM PRODUCTS, N.O.S. (vapour pressure at 50 °C more than 110 kPa)
 UN N° : 1268
 IMO-IMDG - Class or division : 3 : Flammable liquid.
 IMO-IMDG - Packing group : II
 IMO-IMDG - Packing instructions : P001
 IMO-IMDG - Limited quantities : 1 L
 IMO-IMDG - Marine pollution : Yes
 EMS-Nr : F-E S-E

14.3. Air transport (ICAO-IATA) [English only]

Proper shipping name : PETROLEUM DISTILLATES, N.O.S. or PETROLEUM PRODUCTS, N.O.S. (vapour pressure at 50 °C more than 110 kPa)
 UN N° : 1268
 IATA - Class or division : 3 : Flammable liquid.
 IATA - Packing group : II
 IATA - Passenger and Cargo Aircraft : ALLOWED
 - Passenger and Cargo - Packing instruction : 353
 - Passenger and Cargo - Maximum Quantity/Packing : 5 L

MATERIAL SAFETY DATA SHEET (MSDS)
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14. Transport information (continued)

IATA - Cargo only	: ALLOWED
- Cargo only - Packing instruction	: 364
- Cargo only - Maximum Quantity/ Packing	: 60 L
IATA - Limited Quantities	: 1 L
ERG-Nr	: 3H

15. Regulatory information
15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Safety, health and environmental regulations/legislation specific for the substance or mixture	: Ensure all national/local regulations are observed.
REACH Restrictions - Annex XVII	: With the exception of those listed below: The components of this product are not subject to restrictions. Annex XVII
REACH Authorisation - Annex XIV	: The components of this product are not subject to authorization.

15.2. Chemical Safety Assessment

Chemical Safety Assessment	: It has not been carried out.
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16. Other information

Revision	: Revision - See : *
Abbreviations and acronyms	: PBT: persistent, bioaccumulative and toxic. vPvB: very persistent and very bioaccumulative
Sources of key data used	: REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006
List of relevant R phrases (heading 3)	: R11 : Highly flammable. R38 : Irritating to skin. R48/20 : Harmful : danger of serious damage to health by prolonged exposure through inhalation. R51/53 : Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R62 : Possible risk of impaired fertility. R65 : Harmful : may cause lung damage if swallowed. R67 : Vapours may cause drowsiness and dizziness.
List of full text of H-statements in section 3	: H225 : Highly flammable liquid and vapour. H304 : May be fatal if swallowed and enters airways. H315 : Causes skin irritation. H336 : May cause drowsiness or dizziness.

MATERIAL SAFETY DATA SHEET (MSDS)

PETROLEUM ETHER 40 - 60° C AR (PETROLEUM SPIRIT)

In accordance with REACH Regulation (CE) N° 1907/2006 and with CLP Regulation (CE) N° 1272/2008

DISCLAIMER:

- **SUVCHEM** Products are to be used as Lab Chemicals for R&D only. Not for drug, medicinal, household or other uses.
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