Elite Advanced Materials Sdn Bhd

SAFETY DATA SHEET

According to Regulation (EC) No 1907/2006

SDS-PET(40)-0001
Version 1.3
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www.eamaterials.com

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product name	:	Petroleum Ether (40-60 °C)
Included product code	:	PET(40)012-2.5, PET(40)012-4.0, PET(40)011-25M, PET(40)011-200M

1.2 Relevant identified uses of the substance or mixture

Identified uses	:	Laboratory chemicals. Not for pharmaceutical, household or other uses.
Uses advised against	:	Not applicable

1.3 Details of the supplier of the safety data sheet

Company	:	Elite Advanced Materials Sdn Bhd No 1, Jalan KPK 1/2, Kawasan Perindustrian Kundang, 48020 Rawang, Selangor, Malaysia
E-mail address	:	enquiry@eamaterials.com

1.4 Emergency telephone number

Emergency phone	:	+60 3-6034 3766 (Local business hours only)

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Flammable liquids	Category 2
Germ Cell Mutagenicity	Category 1B
Carcinogenicity	Category 1B
Aspiration Hazard	Category 1

2.2 Label elements

Labeling in compliance to Regulation (EC) No. 1272/2008 [CLP/GHS]

Hazard pictograms

GHS02

GHS08

Signal word

Danger

Hazard statements

H304 - May be fatal if swallowed and enter airways.

H340 - May cause genetic defects.

H350 - May cause cancer.

Precautionary statements

P201 - Obtain special instructions before use.

P281 - Use personal protective equipment as required.

Response

P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.
P308 + P313	IF exposed or concerned: Get medical advice/ attention.
P331	Do NOT induce vomiting.

Storage

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

Disposal

P501 Disposal of contents/container to an approved waste disposal plant.

2.3 Other hazards

Not available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance

Synonyms: Naphtha, Ligroine

Component	Identity	Concentration (by volume)
Ligroine	CAS-No. :8032-32-4 EC-No. :232-453-7 Index-No. :649-263-00-9	<= 100%

3.2 Mixture

Not applicable

SECTION 4: FIRST AID MEASURES

4.1 Description of First Aid measures

General information

Get medical advice/attention if you feel unwell. Show this safety data sheet to the doctor in attendance.

If ingested

If ingested, material may be aspirated into lungs and cause chemical pneumonitis. Treat appropriately. Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit does not enter the lungs. Never give anything by mouth to an unconscious person. Rinse mouth with water. Call a physician or poison control center immediately.

If inhalation

Move to fresh air. Get medical attention if symptoms persist.

In case of skin contact

Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician or poison center immediately. Wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes.

In case of eye contact

Wash off with soap and plenty of water for at least 15 minutes. Remove contact lenses if easy to do. Consult a physician.

4.2 Most important symptoms and delayed symptoms and effects

Irritating to eyes, respiratory system and skin. Burning sensation, cough, wheezing, laryngitis, shortness of breath, headache, nausea, vomiting.

4.3 Indication of any immediate medical attention and special treatment

Treat symptomatically. Monitor all inhalations and ingestions for signs of toxicity and development of pulmonary edema for at least 6 hours. Symptoms may be delayed.

SECTION 5: FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Foam, carbon dioxide, dry powder or dry sand.

Unsuitable extinguishing media

Water may be ineffective in fighting the fire.

5.2 Special hazards arising from the substance or mixture

Heat may cause the containers to explode. Vapors are flammable and heavier than air. Vapors may travel across the ground and reach remote ignition sources causing a flashback fire danger.

5.3 Advice for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

Use water spray to cool unopened containers.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapours can accumulate in low areas.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3 Methods and material for containment and cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local/national regulations (see section 13).

6.4 Reference to other sections

For disposal see Section 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precaution for safe handling

Avoid exposure – obtain special instructions before use. Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition – No smoking. Take measures to prevent the build-up of electrostatic charge.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

7.3 Specific end use

No data available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Component	Value	Control Parameters	Basis
Ligroine	TWA	300 ppm 1.370 mg/m^3	Malaysia. Occupational Safety and Health (Use and Standards of Exposure of Chemicals Hazardous to Health) Regulations 2000.

8.2 Exposure control

Personal protection measures, such as personal protective equipment

Eye/ face protection

Use face shield and safety glasses. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

*Source – Sigma Aldrich, 2017

Body protection

Complete suit protecting against chemicals. Flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratoryprotection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Thermal hazards

No data available.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	Colourless
Odour	:	Kerosene
Odour threshold	:	No data available
pH - value	:	No data available

Melting point / Range	:	< -73 °C
Boiling point / Range	:	40-60°C at 760 mmHg
Flash point	:	-49°C [closed cup]
Evaporation rate	:	Approximate 10 (butyl acetate = 1)
Flammability	:	No data available
Flammability limit - LEL	:	1.1 % (V)
Flammability limit - UEL	:	5.9 % (V)
Vapour pressure	:	5.3 kPa
Vapor density (air = 1)	:	No data available
Relative density	:	0.640 g/cm^3
Bulk density	:	No data available
Water solubility	:	Insoluble in water
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	288°C
Decomposition temperature	:	No data available
Viscosity	:	No data available

9.2 Other information

Not applicable

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

Material is stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous polymerization does not occur.

10.4 Conditions to avoid

Avoid heat, flames, sparks and sunlight. Contact with incompatible materials.

10.5 Incompatible materials

Strong oxidizing agents. May attack some plastics, rubber and coatings.

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides

SECTION 11: TOXICOLOGY INFORMATION

11.1 Information on toxicological effects

Acute toxicity

Component	LD50 Intravenous	LC50 Inhalation
Petroleum ether	40 mg/kg (mouse)	3400 ppm (rat) 4 h

Skin corrosion/irritation
May cause skin irritation.

Serious eye damage/eye irritation
Vapor or spray in the eyes may cause irritation and smarting.

Respiratory or skin sensitization
Not a skin sensitizer.

Germ cell mutagenicity
In vivo tests showed mutagenic effects.

Carcinogenicity

May cause cancer.

Reproductive toxicity
No components toxic to reproduction.

Specific target organ toxicity - single exposure
No data available

Specific target organ toxicity - repeated exposure
No data available

Aspiration hazard
May be fatal if swallowed and enter airways.

Additional Information
Not available.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Ecotoxicity

No data available

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

The product is insoluble in water and will spread on the water surface.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment method

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Follow label warning even after the container is emptied since it retain product residue.

Contaminated packaging

Dispose of as unused product. Follow label warnings even after container is emptied since it retain product residue.

SECTION 14: TRANSPORT INFORMATION

14.1 UN number

ADR/RID: 1268 IMDG: 1268 IATA-DGR: 1268

14.2 UN proper shipping name

ADR/RID:	PETROLEUM DISTILLATES, N.O.S.
IMDG:	PETROLEUM DISTILLATES, N.O.S.
IATA-DGR:	Petroleum distillates, n.o.s.

14.3 Transport hazard class(es)

ADR/RID: 3 IMDG: 3 IATA-DGR: 3

14.4 Packaging group

ADR/RID: II IMDG: II IATA-DGR: II

14.5 Environmental hazards

ADR/RID: no IMDG Marine Pollutant: no IATA-DGR: no

14.6 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No data available

14.7 Special precautions for user

No data available

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

No data available

SECTION 16: OTHER INFORMATION

This information is based on present level of our knowledge, however, this shall not constitute a guarantee product features and shall not establish a legally valid contractual relationship.

Relevant phrases:

H304 - May be fatal if swallowed and enter airways.

H340 - May cause genetic defects.

H350 - May cause cancer.

Abbreviations:

ADR : European agreement concerning the international carriage of dangerous goods by road.

IMDG : International Maritime Dangerous Goods.

IATA : International Air Transport Association

RID : Regulations concerning the International Carriage of Dangerous goods by rail.

Notice to reader

The information contained in this Safety Data Sheet is based on the present state of knowledge and current national legislation. It provides guidance on health, safety and environmental aspects of the products and should not be construed as any guarantee of technical performance or suitability for particular application.

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