

**Light Pyrolysis Oil**

Version 1.10

Revision Date 2020-02-03

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

Product Name : Light Pyrolysis Oil
Material : 1037438, 1037439

Company : Chevron Phillips Chemical Company LP
10001 Six Pines Drive
The Woodlands, TX 77380

Emergency telephone:**Health:**

866.442.9628 (North America)
1.832.813.4984 (International)

Transport:

CHEMTREC 800.424.9300 or 703.527.3887(int'l)
Asia: CHEMWATCH (+612 9186 1132) China: 0532 8388 9090
EUROPE: BIG +32.14.584545 (phone) or +32.14583516 (telefax)
Mexico CHEMTREC 01-800-681-9531 (24 hours)
South America SOS-Cotec Inside Brazil: 0800.111.767 Outside Brazil: +55.19.3467.1600
Argentina: +(54)-1159839431

Responsible Department : Product Safety and Toxicology Group
E-mail address : SDS@CPChem.com
Website : www.CPChem.com

SECTION 2: Hazards identification**Classification of the substance or mixture**

This product has been classified in accordance with the hazard communication standard 29 CFR 1910.1200; the SDS and labels contain all the information as required by the standard.

Classification

: Flammable liquids, Category 3
Skin irritation, Category 2
Eye irritation, Category 2A
Carcinogenicity, Category 2
Specific target organ toxicity - repeated exposure, Category 1,
Eyes, Blood
Specific target organ toxicity - repeated exposure, Category 2,
Inhalation, Auditory organs

Light Pyrolysis Oil

Version 1.10

Revision Date 2020-02-03

Aspiration hazard, Category 1

Labeling

Symbol(s)



Signal Word

: Danger

Hazard Statements

: H226: Flammable liquid and vapor.
 H304: May be fatal if swallowed and enters airways.
 H315: Causes skin irritation.
 H319: Causes serious eye irritation.
 H351: Suspected of causing cancer.
 H372: Causes damage to organs (Eyes, Blood) through prolonged or repeated exposure.
 H373: May cause damage to organs (Auditory organs) through prolonged or repeated exposure if inhaled.

Precautionary Statements

: **Prevention:**
 P201 Obtain special instructions before use.
 P202 Do not handle until all safety precautions have been read and understood.
 P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
 P233 Keep container tightly closed.
 P240 Ground/bond container and receiving equipment.
 P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
 P242 Use only non-sparking tools.
 P243 Take precautionary measures against static discharge.
 P260 Do not breathe dust/fume/gas/mist/vapor/spray.
 P264 Wash skin thoroughly after handling.
 P270 Do not eat, drink or smoke when using this product.
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response:
 P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
 P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/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 + P313 IF exposed or concerned: Get medical advice/ attention.
 P331 Do NOT induce vomiting.
 P332 + P313 If skin irritation occurs: Get medical advice/ attention.
 P337 + P313 If eye irritation persists: Get medical advice/ attention.
 P362 Take off contaminated clothing and wash before reuse.
 P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
Storage:
 P403 + P235 Store in a well-ventilated place. Keep cool.

Light Pyrolysis Oil

Version 1.10

Revision Date 2020-02-03

P405 Store locked up.

Disposal:

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

Carcinogenicity:**IARC**

Group 2B: Possibly carcinogenic to humans

Naphthalene 91-20-3

NTP

Reasonably anticipated to be a human carcinogen

Naphthalene 91-20-3

SECTION 3: Composition/information on ingredients

Synonyms : Light Fuel Oil
Light Pyrolysis Gasoline
LPO
LFO

Molecular formula : UVCB

Component	CAS-No.	Weight %
Steam Cracked Petroleum Distillate C10-C12	68477-40-7	100
Naphthalene	91-20-3	70 - 90
4,7-Methano-1H-indene, octahydro-	6004-38-2	30 - 50
2-Methylnaphthalene	91-57-6	10 - 20
1-Methylnaphthalene	90-12-0	1 - 10
Indene	95-13-6	1 - 10
Biphenyl	92-52-4	1 - 10
2,3-Dihydro-1H-Indene	496-11-7	1 - 10
2-Ethylnaphthalene	939-27-5	1 - 10
Benzene, dimethyl-	1330-20-7	1 - 10
1-Methylindan	767-58-8	1 - 10
1,2,4-Trimethylbenzene	95-63-6	1 - 10
1-ethylnaphthalene	1127-76-0	1 - 10
Substituted Aromatic Amine	Proprietary	0.1 - 1
Dicyclopentadiene	77-73-6	0 - 1

SECTION 4: First aid measures

General advice : Move out of dangerous area. Show this material safety data sheet to the doctor in attendance. Material may produce a serious, potentially fatal pneumonia if swallowed or vomited.

If inhaled : If unconscious, place in recovery position and seek medical advice. If symptoms persist, call a physician.

In case of skin contact : If skin irritation persists, call a physician. If on skin, rinse well with water. If on clothes, remove clothes.

In case of eye contact : Immediately flush eye(s) with plenty of water. Remove contact

Light Pyrolysis Oil

Version 1.10

Revision Date 2020-02-03

- lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.
- If swallowed : Keep respiratory tract clear. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Take victim immediately to hospital.

SECTION 5: Firefighting measures

- Flash point : 54.4-93.3°C (129.9-199.9°F)
- Autoignition temperature : 340°C (644°F)
- Suitable extinguishing media : Alcohol-resistant foam. Carbon dioxide (CO₂). Dry chemical.
- Unsuitable extinguishing media : High volume water jet.
- Specific hazards during fire fighting : Do not allow run-off from fire fighting to enter drains or water courses.
- Special protective equipment for fire-fighters : Wear self-contained breathing apparatus for firefighting if necessary.
- Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. For safety reasons in case of fire, cans should be stored separately in closed containments. Use a water spray to cool fully closed containers.
- Fire and explosion protection : Do not spray on an open flame or any other incandescent material. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Keep away from open flames, hot surfaces and sources of ignition.
- Hazardous decomposition products : No data available.

SECTION 6: Accidental release measures

- Personal precautions : Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.
- Environmental precautions : Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods for cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth,

Light Pyrolysis Oil

Version 1.10

Revision Date 2020-02-03

vermiculite) and place in container for disposal according to local / national regulations (see section 13).

SECTION 7: Handling and storage**Handling**

Advice on safe handling : Avoid formation of aerosol. Do not breathe vapors/dust. Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Take precautionary measures against static discharges. Provide sufficient air exchange and/or exhaust in work rooms. Open drum carefully as content may be under pressure. Dispose of rinse water in accordance with local and national regulations.

Advice on protection against fire and explosion : Do not spray on an open flame or any other incandescent material. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Keep away from open flames, hot surfaces and sources of ignition.

Storage

Requirements for storage areas and containers : No smoking. 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. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

SECTION 8: Exposure controls/personal protection**Ingredients with workplace control parameters****US**

Components	Basis	Value	Control parameters	Note
Naphthalene	ACGIH	TWA	10 ppm,	hemolytic anemia, URT irr, cataract, A3, Skin,
	ACGIH	STEL	15 ppm,	hematologic eff, URT irr, eye irr, eye dam, (), A4, Skin,
	OSHA Z-1	TWA	10 ppm, 50 mg/m3	(b),
	OSHA Z-1-A	TWA	10 ppm, 50 mg/m3	
2-Methylnaphthalene	OSHA Z-1-A	STEL	15 ppm, 75 mg/m3	
	ACGIH	TWA	0.5 ppm,	LRT irr, lung dam, A4, Skin,
	ACGIH	TWA	0.5 ppm,	LRT irr, lung dam, A4, Skin,
1-Methylnaphthalene	ACGIH	TWA	0.5 ppm,	LRT irr, lung dam, A4, Skin,
	ACGIH	TWA	5 ppm,	liver dam,
Indene	OSHA Z-1-A	TWA	10 ppm, 45 mg/m3	
	ACGIH	TWA	0.2 ppm,	pulm func,
	OSHA Z-1	TWA	0.2 ppm, 1 mg/m3	(b),
Benzene, dimethyl-	OSHA Z-1-A	TWA	0.2 ppm, 1 mg/m3	
	OSHA Z-1	TWA	100 ppm, 435 mg/m3	(b),
	OSHA Z-1-A	STEL	150 ppm, 655 mg/m3	
	OSHA Z-1-A	TWA	100 ppm, 435 mg/m3	
	ACGIH	TWA	100 ppm,	CNS impair, URT irr, eye irr, BEI, A4,
	ACGIH	STEL	150 ppm,	CNS impair, URT irr, eye irr, BEI, A4,
1,2,4-Trimethylbenzene	ACGIH	TWA	25 ppm,	CNS impair, hematologic eff, asthma,

Light Pyrolysis Oil

Version 1.10

Revision Date 2020-02-03

	OSHA Z-1-A	TWA	25 ppm, 125 mg/m ³	
Dicyclopentadiene	ACGIH	TWA	5 ppm,	URT irr, LRT irr, eye irr,
	OSHA Z-1-A	TWA	5 ppm, 30 mg/m ³	
	ACGIH	TWA	0.5 ppm,	URT irr, LRT irr, eye irr,
	ACGIH	STEL	1 ppm,	

(i)	Adopted values or notations enclosed are those for which changes are proposed in the NIC
(b)	The value in mg/m ³ is approximate.
A3	Confirmed animal carcinogen with unknown relevance to humans
A4	Not classifiable as a human carcinogen
asthma	Asthma
BEI	Substances for which there is a Biological Exposure Index or Indices (see BEI® section)
cataract	Cataract
CNS impair	Central Nervous System impairment
eye dam	Eye damage
eye irr	Eye irritation
hematologic eff	Hematologic effects
hemolytic anemia	Hemolytic anemia
liver dam	Liver damage
LRT irr	Lower Respiratory Tract irritation
lung dam	Lung damage
pulm func	Pulmonary function
Skin	Danger of cutaneous absorption
URT irr	Upper Respiratory Tract irritation

Immediately Dangerous to Life or Health Concentrations (IDLH)

Substance name	CAS-No.	Control parameters	Update
Naphthalene	91-20-3	Immediately Dangerous to Life or Health Concentration Value 250 parts per million	1995-03-01
Biphenyl	92-52-4	Immediately Dangerous to Life or Health Concentration Value 100 mg/m ³	1995-03-01
Benzene, dimethyl-	1330-20-7	Immediately Dangerous to Life or Health Concentration Value 900 parts per million	1995-03-01

US

Substance name	CAS-No.	Control parameters	Sampling time	Update
Benzene, dimethyl-	1330-20-7	Methylhippuric acids: 1.5 g/g creatinine (Urine)	End of shift (As soon as possible after exposure ceases)	2013-03-01

Engineering measures

Adequate ventilation to control airborne concentrations below the exposure guidelines/limits. Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

Personal protective equipment

Respiratory protection : Wear a supplied-air NIOSH approved respirator unless ventilation or other engineering controls are adequate to maintain minimal oxygen content of 19.5% by volume under normal atmospheric pressure. Wear a NIOSH approved respirator that provides protection when working with this material if exposure to harmful levels of airborne material may occur, such as: Air-Purifying Respirator for Organic Vapors. Full-Face Air-Purifying Respirator for Organic Vapors, Dusts and Mists. Use a positive pressure, air-supplying respirator if there is potential for uncontrolled release, exposure levels are not known, or other circumstances where air-purifying respirators may not provide adequate protection.

Light Pyrolysis Oil

Version 1.10

Revision Date 2020-02-03

- Hand protection : The suitability for a specific workplace should be discussed with the producers of the protective gloves. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.
- Eye protection : Eye wash bottle with pure water. Tightly fitting safety goggles.
- Skin and body protection : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. Wear as appropriate: Flame retardant antistatic protective clothing. Workers should wear antistatic footwear.
- Hygiene measures : When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

SECTION 9: Physical and chemical properties**Information on basic physical and chemical properties****Appearance**

- Physical state : Liquid
Color : Blue green

Safety data

- Flash point : 54.4-93.3°C (129.9-199.9°F)
- Lower explosion limit : No data available
- Upper explosion limit : No data available
- Oxidizing properties : No
- Autoignition temperature : 340°C (644°F)
- Molecular formula : UVCB
- Molecular weight : Not applicable
- pH : Not applicable
- Freezing point : 7°C (45°F)
- Pour point : No data available
- Boiling point/boiling range : 170°C (338°F)
- Vapor pressure : No data available
- Relative density : ca. 0.93 - 0.99
at 15.6 °C (60.1 °F)

Light Pyrolysis Oil

Version 1.10

Revision Date 2020-02-03

Water solubility	: Insoluble
Partition coefficient: n-octanol/water	: No data available
Viscosity, kinematic	: No data available
Relative vapor density	: No data available
Evaporation rate	: < 0.1
Percent volatile	: 5.4 %

SECTION 10: Stability and reactivity

Reactivity	: Stable under recommended storage conditions.
Chemical stability	: This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
Possibility of hazardous reactions	
Hazardous reactions	: Hazardous reactions: Hazardous polymerization does not occur. Further information: No decomposition if stored and applied as directed. Hazardous reactions: Vapors may form explosive mixture with air.
Conditions to avoid	: Heat, flames and sparks.
Hazardous decomposition products	: No data available
Other data	: No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

Light Pyrolysis Oil	
Acute oral toxicity	: LD50: 2,890 mg/kg Species: Rat
Light Pyrolysis Oil	
Acute inhalation toxicity	: LC50: > 5 mg/l Exposure time: 4 h Species: Rat Test atmosphere: dust/mist

Light Pyrolysis Oil

Version 1.10

Revision Date 2020-02-03

Acute toxicity estimate: > 30000 ppm
Exposure time: 4 h
Test atmosphere: gas
Method: Calculation method

**Light Pyrolysis Oil
Acute dermal toxicity**

: LC50: > 2,000 mg/kg
Species: Rabbit
Information given is based on data obtained from similar substances.

Acute toxicity estimate: > 5,000 mg/kg
Method: Calculation method

Acute toxicity estimate: > 5,000 mg/kg
Method: Calculation method

**Light Pyrolysis Oil
Skin irritation**

: May cause skin irritation in susceptible persons.

**Light Pyrolysis Oil
Eye irritation**

: May cause irreversible eye damage.

**Light Pyrolysis Oil
Sensitization**

: May cause sensitization of susceptible persons by skin contact.

Repeated dose toxicity

Light Pyrolysis Oil

Version 1.10

Revision Date 2020-02-03

Benzene, dimethyl- : Species: Rat
 Application Route: oral gavage
 Dose: 0, 62.5, 125, 250, 500, 100...
 Exposure time: 13 wk
 Number of exposures: daily, 5 d/wk
 NOEL: 1,000 mg/kg

Species: Rat
 Application Route: Inhalation
 Dose: 0, 180, 460, 810 ppm
 Exposure time: 13 wk
 Number of exposures: 6 h/d, 5 d/wk
 NOEL: > 810 ppm

Species: Rat
 Application Route: Inhalation
 Dose: 0, 450, 900, 1800 ppm
 Exposure time: 13 wk
 Number of exposures: 6 h/d, 6 d/wk
 Lowest observable effect level: 900 ppm

Dicyclopentadiene Species: Rat, female
 Sex: female
 Application Route: oral gavage
 NOEL: 20 mg/kg

Sex: male
 NOEL: 4 mg/kg

Genotoxicity in vitro

Naphthalene : Test Type: Ames test
 Result: negative

Test Type: Sister Chromatid Exchange Assay
 Result: negative

Test Type: Unscheduled DNA synthesis assay
 Result: negative

Benzene, dimethyl- Test Type: Ames test
 Result: negative

Test Type: Mouse lymphoma assay
 Result: negative

Dicyclopentadiene Test Type: Ames test
 Result: negative

Test Type: Chromosome aberration test in vitro
 Result: negative

Genotoxicity in vivo

Naphthalene : Test Type: Mouse micronucleus assay
 Result: negative

Benzene, dimethyl- Test Type: Mouse micronucleus assay
 Result: negative

Light Pyrolysis Oil

Version 1.10

Revision Date 2020-02-03

Carcinogenicity

Naphthalene

: Species: Mouse
 Sex: male
 Dose: 10, 30 ppm
 Exposure time: 105 weeks
 Number of exposures: 6 hours/day, 5 days/week
 Test substance: yes
 Print Date: No information available.
 Remarks: No evidence of carcinogenicity

Species: Mouse
 Sex: female
 Dose: 10, 30 ppm
 Exposure time: 105 weeks
 Number of exposures: 6 hours/day, 5 days/week
 Test substance: yes
 Print Date: No information available.
 Remarks: increased incidence of alveolar/bronchiolar adenomas

Species: Rat
 Sex: male and female
 Dose: 10, 30, 60 ppm
 Exposure time: 105 weeks
 Number of exposures: 6 hours/day, 5 days/week
 Test substance: yes
 Print Date: No information available.
 Remarks: nose respiratory epithelial adenoma, increased incidence of olfactory neuroblastomas

Benzene, dimethyl-

Species: Rat
 Dose: 0, 250, 500 mg/kg
 Exposure time: 103 wks
 Number of exposures: 5 d/wk
 Remarks: No evidence of carcinogenicity

Species: Mouse
 Dose: 0, 500, 1000 mg/kg
 Exposure time: 103 wks
 Number of exposures: 5 d/wk
 Remarks: No evidence of carcinogenicity

Reproductive toxicity

Dicyclopentadiene

: Species: Rat
 Sex: male
 Application Route: oral gavage
 NOAEL Parent: 100 mg/kg

Species: Rat
 Sex: female
 Application Route: oral gavage
 NOAEL Parent: 20 mg/kg
 NOAEL F1: 20 mg/kg

Developmental Toxicity

Light Pyrolysis Oil

Version 1.10

Revision Date 2020-02-03

Naphthalene : Species: Rabbit
Application Route: oral gavage
Dose: 40, 200, 400 mg/kg
Test period: 29 d, GD 6-18
NOAEL Teratogenicity: 400 mg/kg

Benzene, dimethyl- Species: Rat
Application Route: Inhalation
Dose: 0, 805, 1610 ppm
Number of exposures: 6 h/d
Test period: GD 7-16
NOAEL Maternal: 1610 ppm

Species: Mouse
Application Route: oral gavage
Dose: 0, 780, 1960, 2619 mg/kg
Number of exposures: 3 times/d
Test period: GD 6-15
NOAEL Teratogenicity: 780 mg/kg
NOAEL Maternal: 780 mg/kg

**Light Pyrolysis Oil
Aspiration toxicity** : May be fatal if swallowed and enters airways.

CMR effects

Steam Cracked Petroleum Distillate C10-C12 : Carcinogenicity: Limited evidence of carcinogenicity in animal studies

Naphthalene Carcinogenicity: Limited evidence of carcinogenicity in animal studies

Benzene, dimethyl- Carcinogenicity: Not classifiable as a human carcinogen.
Mutagenicity: Did not show mutagenic effects in animal experiments.
Teratogenicity: Damage to fetus not classifiable

**Light Pyrolysis Oil
Further information** : Solvents may degrease the skin.

SECTION 12: Ecological information**Toxicity to fish**

Naphthalene : LC50: 3.2 mg/l
Exposure time: 96 h
Species: Pimephales promelas (fathead minnow)

1-Methylnaphthalene LC50: 9 mg/l
Exposure time: 96 h
Species: Pimephales promelas (fathead minnow)
static test

Benzene, dimethyl- LC50: 8.2 mg/l
Exposure time: 96 h
Species: Salmo gairdneri (Rainbow trout)

Light Pyrolysis Oil

Version 1.10

Revision Date 2020-02-03

Dicyclopentadiene LC50: 3.7 mg/l
 Exposure time: 48 h
 Species: *Oryzias latipes* (Orange-red killifish)

Toxicity to daphnia and other aquatic invertebrates

Naphthalene : LC50: 2.16 mg/l
 Exposure time: 48 h
 Species: *Daphnia magna* (Water flea)

Dicyclopentadiene EC50: 8.0 mg/l
 Exposure time: 48 h
 Species: *Daphnia magna* (Water flea)

Toxicity to algae

Naphthalene : EC50: 2.96 mg/l
 Exposure time: 48 h
 Species: *Selenastrum capricornutum* (algae)

Dicyclopentadiene EC50: 27.0 mg/l
 Exposure time: 72 h
 Species: *Selenastrum capricornutum* (algae)

Biodegradability : Expected to be ultimately biodegradable

Elimination information (persistence and degradability)

Bioaccumulation

Benzene, dimethyl- : This material is not expected to bioaccumulate.

Additional ecological information : Very toxic to aquatic life with long lasting effects.

Ecotoxicology Assessment

Short-term (acute) aquatic hazard : Very toxic to aquatic life.

Long-term (chronic) aquatic hazard : Very toxic to aquatic life with long lasting effects.

Toxicity Data on Soil : No data available

Other organisms relevant to the environment : No data available

Impact on Sewage Treatment : No data available

SECTION 13: Disposal considerations

The information in this SDS pertains only to the product as shipped.

Use material for its intended purpose or recycle if possible. This material, if it must be discarded, may meet the criteria of a hazardous waste as defined by US EPA under RCRA (40 CFR 261) or other State and local regulations. Measurement of certain physical properties and analysis for regulated components may be necessary to make a correct determination. If this material is classified as a hazardous waste, federal law requires disposal at a licensed hazardous waste disposal facility.

Light Pyrolysis Oil

Version 1.10

Revision Date 2020-02-03

- Product : The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company.
- Contaminated packaging : Empty remaining contents. Dispose of as unused product. Do not re-use empty containers. Do not burn, or use a cutting torch on, the empty drum.

SECTION 14: Transport information

The shipping descriptions shown here are for bulk shipments only, and may not apply to shipments in non-bulk packages (see regulatory definition).

Consult the appropriate domestic or international mode-specific and quantity-specific Dangerous Goods Regulations for additional shipping description requirements (e.g., technical name or names, etc.) Therefore, the information shown here, may not always agree with the bill of lading shipping description for the material. Flashpoints for the material may vary slightly between the SDS and the bill of lading.

US DOT (UNITED STATES DEPARTMENT OF TRANSPORTATION)

UN1202, HOT GAS OIL, 3, III, MARINE POLLUTANT, (NAPHTHALENE)

IMO / IMDG (INTERNATIONAL MARITIME DANGEROUS GOODS)

UN1202, HOT GAS OIL, 3, III, (54.4-93.3°C), MARINE POLLUTANT, (NAPHTHALENE, BIPHENYL)

IATA (INTERNATIONAL AIR TRANSPORT ASSOCIATION)

UN1202, 3: NOT PERMITTED FOR TRANSPORT

ADR (AGREEMENT ON DANGEROUS GOODS BY ROAD (EUROPE))

UN1202, HOT GAS OIL, 3, III, (D/E), ENVIRONMENTALLY HAZARDOUS, (NAPHTHALENE, BIPHENYL)

RID (REGULATIONS CONCERNING THE INTERNATIONAL TRANSPORT OF DANGEROUS GOODS (EUROPE))

UN1202, HOT GAS OIL, 3, III, ENVIRONMENTALLY HAZARDOUS, (NAPHTHALENE, BIPHENYL)

ADN (EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY INLAND WATERWAYS)

UN1202, HOT GAS OIL, 3, III, ENVIRONMENTALLY HAZARDOUS, (NAPHTHALENE, BIPHENYL)

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

Light Pyrolysis Oil

Version 1.10

Revision Date 2020-02-03

SECTION 15: Regulatory information**National legislation**

SARA 311/312 Hazards : Flammable (gases, aerosols, liquids, or solids)
 Skin corrosion or irritation
 Serious eye damage or eye irritation
 Carcinogenicity
 Specific target organ toxicity (single or repeated exposure)
 Aspiration hazard

CERCLA Reportable Quantity : 124 lbs
 Naphthalene

SARA 302 Reportable Quantity : This material does not contain any components with a SARA 302 RQ.

SARA 302 Threshold Planning Quantity : This material does not contain any components with a section 302 EHS TPQ.

SARA 304 Reportable Quantity : This material does not contain any components with a section 304 EHS RQ.

SARA 313 Components : The following components are subject to reporting levels established by SARA Title III, Section 313:

: Naphthalene - 91-20-3
 Biphenyl - 92-52-4
 Benzene, dimethyl- - 1330-20-7
 1,2,4-Trimethylbenzene - 95-63-6
 Dicyclopentadiene - 77-73-6

Clean Air Act

Ozone-Depletion Potential : This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):

: Naphthalene - 91-20-3
 Biphenyl - 92-52-4
 Benzene, dimethyl- - 1330-20-7

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

Light Pyrolysis Oil

Version 1.10

Revision Date 2020-02-03

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCM Intermediate or Final VOC's (40 CFR 60.489):

- : 2-Methylnaphthalene - 91-57-6
- 1-Methylnaphthalene - 90-12-0
- Biphenyl - 92-52-4
- Benzene, dimethyl- - 1330-20-7
- 1-ethylnaphthalene - 1127-76-0

US State Regulations

Pennsylvania Right To Know

- : Naphthalene - 91-20-3
- 2-Methylnaphthalene - 91-57-6
- 1-Methylnaphthalene - 90-12-0
- Naphthalene, dimethyl- - 28804-88-8
- Indene - 95-13-6
- Biphenyl - 92-52-4
- Benzene, dimethyl- - 1330-20-7
- 1,2,4-Trimethylbenzene - 95-63-6
- Dicyclopentadiene - 77-73-6

California Prop. 65
Components

- : WARNING: This product can expose you to chemicals including [listed below], which is [are] known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov/food.

Naphthalene

91-20-3

Notification status

- Europe REACH : Not in compliance with the inventory
- Switzerland CH INV : On the inventory, or in compliance with the inventory
- United States of America (USA) TSCA : On or in compliance with the active portion of the TSCA inventory
- Canada NDSL : On the inventory, or in compliance with the inventory
- Australia AICS : On the inventory, or in compliance with the inventory
- New Zealand NZIoC : Not in compliance with the inventory
- Japan ENCS : Not in compliance with the inventory
- Korea KECI : A substance(s) in this product was not registered, notified to be registered, or exempted from registration by CPChem according to K-REACH regulations. Importation or manufacture of this product is still permitted provided the Korean Importer of Record has themselves notified the substance.
- Philippines PICCS : Not in compliance with the inventory

Light Pyrolysis Oil

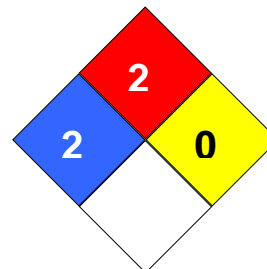
Version 1.10

Revision Date 2020-02-03

China IECSC : Not in compliance with the inventory
 Taiwan TCSI : Not in compliance with the inventory

SECTION 16: Other information

NFPA Classification : Health Hazard: 2
 Fire Hazard: 2
 Reactivity Hazard: 0

**Further information**

Legacy SDS Number : PE0054

Significant changes since the last version are highlighted in the margin. This version replaces all previous versions.

The information in this SDS pertains only to the product as shipped.

The information provided in 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text.

Key or legend to abbreviations and acronyms used in the safety data sheet

ACGIH	American Conference of Government Industrial Hygienists	LD50	Lethal Dose 50%
AICS	Australia, Inventory of Chemical Substances	LOAEL	Lowest Observed Adverse Effect Level
DSL	Canada, Domestic Substances List	NFPA	National Fire Protection Agency
NDSL	Canada, Non-Domestic Substances List	NIOSH	National Institute for Occupational Safety & Health
CNS	Central Nervous System	NTP	National Toxicology Program
CAS	Chemical Abstract Service	NZIoC	New Zealand Inventory of Chemicals
EC50	Effective Concentration	NOAEL	No Observable Adverse Effect Level
EC50	Effective Concentration 50%	NOEC	No Observed Effect Concentration
EGEST	EOSCA Generic Exposure Scenario Tool	OSHA	Occupational Safety & Health Administration
EOSCA	European Oilfield Specialty Chemicals Association	PEL	Permissible Exposure Limit
EINECS	European Inventory of Existing Chemical Substances	PICCS	Philippines Inventory of Commercial Chemical Substances
MAK	Germany Maximum Concentration Values	PRNT	Presumed Not Toxic
GHS	Globally Harmonized System	RCRA	Resource Conservation Recovery Act
>=	Greater Than or Equal To	STEL	Short-term Exposure Limit
IC50	Inhibition Concentration 50%	SARA	Superfund Amendments and Reauthorization Act.
IARC	International Agency for Research on Cancer	TLV	Threshold Limit Value

Light Pyrolysis Oil

Version 1.10

Revision Date 2020-02-03

IECSC	Inventory of Existing Chemical Substances in China	TWA	Time Weighted Average
ENCS	Japan, Inventory of Existing and New Chemical Substances	TSCA	Toxic Substance Control Act
KECI	Korea, Existing Chemical Inventory	UVCB	Unknown or Variable Composition, Complex Reaction Products, and Biological Materials
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials Information System
LC50	Lethal Concentration 50%		