



SAFETY DATA SHEET

SDS ID NO.: 0133MAR020

Revision date 01/28/2022

1. IDENTIFICATION

Product Name	Marathon Petroleum Naphtha, Straight Run Full Range
Synonym	Naphtha; Light Naphtha; BTX Naphtha; Light Splitter Overhead Naphtha; Light Straight Run Naphtha; Naphtha Light Straight Run; Naphtha, Solvent Refined Light; Raffinate; Heavy Naphtha; Heavy Straight Run Naphtha; LCO Straight Run Heavy; Naphtha Heavy Straight Run; No. 4 Topper Heavy Naphtha; Sour Naphtha;
Product code	0133MAR020
Chemical family	Aliphatic Naphtha
Recommended use	Feedstock.
Restrictions on use	All others.
Manufacturer, Importer, or Responsible Party Name and Address	MARATHON PETROLEUM COMPANY LP 539 South Main Street Findlay, OH 45840
SDS Information	1-419-421-3070 (M-F; 8-5 EST)
24 Hour Emergency Telephone	CHEMTREC: 1-800-424-9300 (CCN# 13740)

2. HAZARD IDENTIFICATION

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Classification

Flammable liquids	Category 1
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Germ cell mutagenicity	Category 1B
Carcinogenicity	Category 1A
Reproductive toxicity	Category 2
Specific target organ toxicity (single exposure)	Category 3
Specific target organ toxicity (repeated exposure)	Category 1 Category 2
Aspiration toxicity	Category 1
Acute aquatic toxicity	Category 2
Chronic aquatic toxicity	Category 2

Hazards Not Otherwise Classified (HNOC)

Static accumulating flammable liquid

Label Elements

Danger

EXTREMELY FLAMMABLE LIQUID AND VAPOR
May accumulate electrostatic charge and ignite or explode

May be fatal if swallowed and enters airways
Causes skin irritation
Causes serious eye irritation
May cause respiratory irritation
May cause drowsiness or dizziness
May cause genetic defects
May cause cancer
Suspected of damaging fertility or the unborn child
Causes damage to organs (blood, blood-forming organs, immune system) through prolonged or repeated exposure
May cause damage to organs (auditory system, nervous system) through prolonged or repeated exposure
Toxic to aquatic life with long lasting effects



Appearance Colorless Liquid

Physical State Liquid

Odor Hydrocarbon

Precautionary Statements - Prevention

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Keep away from heat/sparks/open flames/hot surfaces. - No smoking
Keep container tightly closed
Ground/bond container and receiving equipment
Use explosion-proof electrical/ventilating/lighting/equipment
Use only non-sparking tools.
Take precautionary measures against static discharge
Do not breathe the mist/vapors/spray
Do not eat, drink or smoke when using this product
Use only outdoors or in a well-ventilated area
Wash hands and any possibly exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection
Avoid release to the environment

Precautionary Statements - Response

IF exposed or concerned: Get medical attention
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical attention
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
If skin irritation occurs: Get medical attention
Wash contaminated clothing before reuse
If inhaled: Remove person to fresh air and keep at rest in a position comfortable for breathing
Call a poison center or doctor if you feel unwell
If swallowed: Immediately call a poison center or doctor
Do NOT induce vomiting
In case of fire: Use water spray, fog or regular foam for extinction
Collect spillage

Precautionary Statements - Storage

Store in a well-ventilated place. Keep container tightly closed
Keep cool
Store locked up

Precautionary Statements - Disposal

Dispose of contents/container at an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

Light Straight Run is a complex mixture of paraffinic, cycloparaffinic, olefinic and aromatic hydrocarbons (predominantly C2 through C10) produced by the distillation of crude oil. Contains predominantly aliphatic hydrocarbons.

Composition Information

Name	CAS Number	% Concentration
Naphtha (petroleum), light straight-run	64741-46-4	0-100
Naphtha (petroleum), heavy straight-run	64741-41-9	0-100
Naphtha (petroleum), unsweetened	68783-12-0	0-100
Paraffins	68551-20-2	35-95
n-Pentane	109-66-0	0-65
Isopentane	78-78-4	0-55
n-Hexane	110-54-3	0-32
n-Butane	106-97-8	0-28
Propane	74-98-6	0-18
Isobutane	75-28-5	0-17
Cyclohexane	110-82-7	0-13
Xylene (mixed isomers)	1330-20-7	0-10
Toluene	108-88-3	0-9
Benzene	71-43-2	0-4.99
1,2,4-Trimethylbenzene	95-63-6	0.5-3.4
Ethylbenzene	100-41-4	0.1-2.3
Cumene	98-82-8	0.0-1.7

All concentrations are percent by weight unless material is a gas. Gas concentrations are in percent by volume.

4. FIRST AID MEASURES

First aid measures

General advice

In case of accident or if you feel unwell, seek medical advice immediately (show directions for use or safety data sheet if possible).

Inhalation

Remove to fresh air. If not breathing, utilize bag valve mask or other form of barrier device to institute rescue breathing. If breathing is difficult, ensure airway is clear, give oxygen and continue to monitor. If heart has stopped, immediately begin cardiopulmonary resuscitation (CPR). Keep affected person warm and at rest. Get immediate medical attention.

Skin contact

Immediately wash exposed skin with plenty of soap and water while removing contaminated clothing and shoes. May be absorbed through the skin in harmful amounts. Get medical attention if irritation persists.

Place contaminated clothing in closed container until cleaned or discarded. If clothing is to be laundered, inform the person performing the operation of contaminant's hazardous properties. Destroy contaminated, non-chemical resistant footwear.

Eye contact

Flush immediately with large amounts of water for at least 15 minutes. Gently remove contacts while flushing. Eyelids should be held away from the eyeball to ensure thorough rinsing. Gently remove contacts while flushing. Get medical attention if irritation persists.

Ingestion

Do not induce vomiting because of danger of aspirating liquid into lungs, causing serious damage and chemical pneumonitis. If spontaneous vomiting occurs, keep head below hips, or if patient is lying down, turn body and head to side to prevent aspiration and monitor for breathing difficulty. Never give anything by mouth to an unconscious person. Keep affected person warm and at rest. Get immediate medical attention.

Most important signs and symptoms, both short-term and delayed with overexposure

Adverse effects Acute: Headache, drowsiness, dizziness, loss of coordination, disorientation and fatigue. May cause eye, skin and respiratory irritation. Delayed: Dry skin and possible irritation with repeated or prolonged exposure. Prolonged or repeated exposure may cause adverse effects on blood, blood-forming organs, and immune system.

Indication of any immediate medical attention and special treatment needed

Notes to physician INHALATION: This material (or a component) sensitizes the myocardium to the effects of sympathomimetic amines. Epinephrine and other sympathomimetic drugs may initiate cardiac arrhythmias in individuals exposed to this material. Administration of sympathomimetic drugs should be avoided.

INGESTION: This material represents a significant aspiration and chemical pneumonitis hazard. Induction of emesis is not recommended.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media For small fires, Class B fire extinguishing media such as CO2, dry chemical, foam or water spray can be used. For large fires, water spray, fog or foam can be used. Firefighting should be attempted only by those who are adequately trained and equipped with proper protective equipment.

Unsuitable extinguishing media Do not use straight water streams to avoid spreading fire.

Specific hazards arising from the chemical This product has been determined to be an extremely flammable liquid per the OSHA Hazard Communication Standard and should be handled accordingly. May accumulate electrostatic charge and ignite or explode. Vapors may travel along the ground or be moved by ventilation and ignited by many sources such as pilot lights, sparks, electric motors, static discharge, or other ignition sources at locations distant from material handling. Flashback can occur along vapor trail. For additional fire related information, see NFPA 30 or the Emergency Response Guidebook 128.

Hazardous combustion products Smoke, carbon monoxide, and other products of incomplete combustion.

Explosion data
Sensitivity to mechanical impact: No.
Sensitivity to static discharge: Yes.

Special protective equipment and precautions for firefighters Firefighters should wear full protective clothing and positive-pressure self-contained breathing apparatus (SCBA) with a full face-piece, as appropriate. Avoid using straight water streams. Water may be ineffective in extinguishing low flash point fires, but can be used to cool exposed surfaces. Avoid excessive water spray application. Water spray and foam must be applied carefully to avoid frothing and from as far a distance as possible. Keep run-off water out of sewers and water sources.

Additional firefighting tactics FIRES INVOLVING TANKS OR CAR/TRAILER LOADS: Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Cool containers with flooding quantities of water until well after the fire is out. Do not direct water at source of leak or safety devices; icing may occur. Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. ALWAYS stay away from tanks engulfed in fire. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.

EVACUATION: Consider initial downwind evacuation for at least 1000 feet. If tank, rail car or tank truck is involved in a fire, ISOLATE for 5280 feet (1 mile) in all directions; also, consider initial evacuation of 5280 feet (1 mile) in all directions.

NFPA Health 1 Flammability 4 Instability 0 Special Hazard -

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Keep public away. Isolate and evacuate area. Shut off source if safe to do so. Eliminate all ignition sources.
Protective equipment	Use personal protection measures as recommended in Section 8.
Emergency procedures	Advise authorities and National Response Center (800-424-8802) if the product has entered a water course or sewer. Notify local health and pollution control agencies, if appropriate.
Environmental precautions	Avoid release to the environment. Avoid subsoil penetration.
Methods and materials for containment	Contain liquid with sand or soil. Prevent spilled material from entering storm drains, sewers, and open waterways.
Methods and materials for cleaning up	Use suitable absorbent materials such as vermiculite, sand, or clay to clean up residual liquids. Recover and return free product to proper containers. When recovering free liquids ensure all equipment is grounded and bonded. Use only non-sparking tools.

7. HANDLING AND STORAGE

Safe handling precautions	<p>Use appropriate grounding and bonding practices. Static accumulating flammable liquid. Bonding and grounding may be insufficient to eliminate the hazard from static electricity. Do not expose to heat, open flames, strong oxidizers or other sources of ignition. Vapors may travel along the ground or be moved by ventilation. Flashback may occur along vapor trails. Flashback may occur along vapor trails. No smoking. Avoid breathing fumes, gas, or vapors. Use only with adequate ventilation. Avoid contact with skin, eyes and clothing. Use personal protection recommended in Section 8. Exercise good personal hygiene including removal of soiled clothing and prompt washing with soap and water. Do not cut, drill, grind or weld on empty containers since explosive residues may remain. Comply with all applicable EPA, OSHA, NFPA and consistent state and local requirements.</p> <p>Components of this product are basically non-conductors of electricity and can become electrostatically charged during mixing, filtering or pumping at high flow rates. If this charge reaches a sufficiently high level, sparks can form that may ignite the vapors of flammable liquids. Sudden release of hot organic vapors or mists from process equipment operating at elevated temperature and pressure, or sudden ingress of air into vacuum equipment, may result in ignitions without the presence of obvious ignition sources.</p>
Storage conditions	Store in properly closed containers that are appropriately labeled and in a cool, well-ventilated area.
Incompatible materials	Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Name	ACGIH TLV	OSHA PELS	NIOSH IDLH
n-Pentane 109-66-0	1000 ppm TWA	TWA: 1000 ppm TWA: 2950 mg/m ³	1500 ppm
Isopentane 78-78-4	1000 ppm TWA	-	-
n-Hexane 110-54-3	50 ppm TWA Skin - potential significant contribution to overall exposure by the cutaneous route	TWA: 500 ppm TWA: 1800 mg/m ³	1100 ppm

n-Butane 106-97-8	1000 ppm STEL	-	1600 ppm
Propane 74-98-6	Simple asphyxiant	TWA: 1000 ppm TWA: 1800 mg/m ³	2100 ppm
Isobutane 75-28-5	1000 ppm STEL	-	-
Cyclohexane 110-82-7	100 ppm TWA	TWA: 300 ppm TWA: 1050 mg/m ³	1300 ppm
Xylene (mixed isomers) 1330-20-7	100 ppm TWA 150 ppm STEL	TWA: 100 ppm TWA: 435 mg/m ³	900 ppm
Toluene 108-88-3	20 ppm TWA OTO - potential to cause hearing impairment alone or in combination with noise	TWA: 200 ppm Ceiling: 300 ppm	500 ppm
Benzene 71-43-2	0.5 ppm TWA 2.5 ppm STEL Skin - potential significant contribution to overall exposure by the cutaneous route	TWA: 1 ppm STEL: 5 ppm TWA: 10 ppm (applies to industry segments exempt from the benzene standard) (see 29 CFR 1910.1028)	500 ppm
1,2,4-Trimethylbenzene 95-63-6	25 ppm TWA	-	-
Ethylbenzene 100-41-4	20 ppm TWA	TWA: 100 ppm TWA: 435 mg/m ³	800 ppm
Cumene 98-82-8	5 ppm TWA	TWA: 50 ppm TWA: 245 mg/m ³ Skin	900 ppm

Notes: No further information available.

Engineering measures Local or general exhaust required in an enclosed area or when there is inadequate ventilation. Use mechanical ventilation equipment that is explosion-proof.

Personal protective equipment

Eye protection Use goggles or face-shield if the potential for splashing exists.

Skin and body protection Use nitrile rubber, Viton®, or PVA gloves to prevent skin exposure. Glove suitability is based on workplace conditions and usage. Contact the glove manufacturer for specific advice on glove selection and breakthrough times. Depending upon the conditions of use and specific work situations, additional protective equipment and/or clothing may be required to control exposures.

Respiratory protection Approved organic vapor chemical cartridge or supplied air respirators should be worn for exposures to any components exceeding the established exposure limits. Self-contained breathing apparatus should be used for fire fighting.

Hygiene measures Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance Colorless Liquid
Physical State Liquid
Color Colorless
Odor Hydrocarbon
Odor Threshold No data available.

Property **Values (method)**
pH Not applicable.
Melting Point / Freezing Point No data available.

Initial Boiling Point / Boiling Range	-62-97 °C / -80-207 °F
Flash Point	< 4.4 °C / < 40 °F
Evaporation Rate	No data available.
Flammability (solid, gas)	Not applicable.
Flammability Limit in Air (%):	
Upper Flammability Limit:	8.5
Lower Flammability Limit:	1.1
Explosion Limits	No data available.
Vapor Pressure	0.21-19.39 psi
Vapor Density	>2
Specific Gravity / Relative Density	0.85 (0.58-0.85)
Water Solubility	No data available.
Partition Coefficient	No data available.
Autoignition Temperature	No data available.
Decomposition Temperature	No data available.
Kinematic Viscosity	No data available.
VOC Content (%)	No data available.

10. STABILITY AND REACTIVITY

Reactivity	The product is non-reactive under normal conditions.
Chemical stability	The material is stable at 70°F (21°C), 760 mmHg pressure.
Possibility of hazardous reactions	None under normal processing.
Hazardous polymerization	Will not occur.
Conditions to avoid	Sources of heat or ignition.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	None known under normal conditions of use.

11. TOXICOLOGICAL INFORMATION

Potential short-term adverse effects from overexposures

Inhalation	May cause irritation of respiratory tract. May cause central nervous system depression or effects. Breathing high concentrations of this material, for example, in a confined space or by intentional abuse, can cause irregular heartbeats which can cause death.
Eye contact	Irritating to eyes. Contact may cause pain and severe reddening and inflammation of the conjunctiva.
Skin contact	Irritating to skin. Contact may cause reddening, itching and inflammation. May be absorbed through the skin in harmful amounts. Effects may become more serious with repeated or prolonged contact.
Ingestion	May be fatal if swallowed or vomited and enters airways. May cause irritation of the mouth, throat and gastrointestinal tract.

Acute toxicological data

Name	Oral LD50	Dermal LD50	Inhalation LC50
Naphtha (petroleum), heavy straight-run 64741-41-9	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5 mg/L (Rat) 4 h
Naphtha (petroleum), light straight-run	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5 mg/L (Rat) 4 h

64741-46-4			
Naphtha (petroleum), unsweetened 68783-12-0	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5.0 mg/L (Rat) 4 h
n-Pentane 109-66-0	> 2000 mg/kg (Rat)	= 3000 mg/kg (Rabbit)	364 mg/L (Rat) 4 h
Isopentane 78-78-4	-	-	450 mg/L (Mouse) 2 h
n-Hexane 110-54-3	15000 mg/kg (Rat)	3000 mg/kg (Rabbit)	48000 ppm (Rat) 4 h
n-Butane 106-97-8	-	-	658 mg/L (Rat) 4 h
Propane 74-98-6	-	-	> 1,464 mg/L (Rat) 15 min
Isobutane 75-28-5	-	-	570,000 ppm (Rat) 15 min
Cyclohexane 110-82-7	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	13.9 mg/L (Rat) 4 h
Xylene (mixed isomers) 1330-20-7	> 2000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 5.04 mg/L (Rat) 4 h
Toluene 108-88-3	> 2000 mg/kg (Rat)	8390 mg/kg (Rabbit)	12.5 mg/L (Rat) 4 h
Benzene 71-43-2	> 2000 mg/kg (Rat)	> 5000 mg/kg (Rabbit)	> 20 mg/l (Rat) 4 h
1,2,4-Trimethylbenzene 95-63-6	3280 mg/kg (Rat)	> 3160 mg/kg (Rabbit)	18,000 mg/m ³ (Rat) 4 h
Ethylbenzene 100-41-4	> 2000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	17.2 mg/L (Rat) 4 h
Cumene 98-82-8	> 2000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 20 mg/L (Rat) 6 h

Immediate and delayed effects as well as chronic effects from short and long-term exposure

Altered mental state, drowsiness, peripheral motor neuropathy, irreversible brain damage (so-called Petrol Sniffer's Encephalopathy), delirium, seizures, and sudden death have been reported from repeated overexposure to some hydrocarbon solvents, naphthas, and gasoline.

NAPHTHAS: In a large epidemiological study on over 15,000 employees at several petroleum refineries and amongst residents located near these refineries, no increased risk of kidney cancer was observed in association with gasoline exposures (a similar material). In a similar study, no increased risk of kidney cancer was observed among petroleum refinery workers, but there was a slight trend in the incidence of kidney cancers among service station employees, especially after a 30-year latency period.

C9 AROMATIC HYDROCARBONS: A developmental inhalation study was conducted in laboratory mice. Increased implantation losses, reduced fetal weights, delayed ossification and an increased incidence of cleft palate were observed at the highest exposure level (1,500 ppm). This exposure level was extremely toxic to pregnant female mice (44% mortality). Reduced fetal body weights were also observed at 500 ppm. A multi-generation reproduction inhalation study was conducted in laboratory rats. Reductions in pup weights, pup weight gain, litter size, and pup survival were observed at 1,500 ppm, an exposure level at which significant maternal toxicity was observed. Reduced pup weight gain was also observed at 500 ppm.

ISOPARAFFINS: Studies in laboratory animals have shown that long-term exposure to similar materials (isoparaaffins) can cause kidney damage and kidney cancer in male laboratory rats. However, in-depth research indicates that these findings are unique to the male rat, and that these effects are not relevant to humans.

PROPANE, BUTANE and PENTANE: Laboratory animal studies indicate exposure to extremely high levels (1 to 10 vol.% in air) may cause cardiac arrhythmias (irregular heartbeats) which may be serious or fatal.

XYLENE: Overexposure to airborne xylene may cause upper respiratory tract irritation, headache, cyanosis, blood serum changes, nervous system damage and narcosis. Impaired neurological function has been reported in workers exposed to solvents including xylene. Laboratory animal studies have shown evidence of impaired hearing after prolonged exposure high airborne concentrations. Laboratory animal studies suggest some changes in reproductive organs after exposure to high airborne concentrations of xylene without an effect on reproduction. Skeletal and visceral malformations, developmental delays, and increased fetal resorptions were observed in laboratory animals after extremely high airborne concentrations with evidence of maternal toxicity. Adverse effects on the liver, kidney, and bone marrow were observed in laboratory animals after prolonged and repeated exposure to high airborne concentrations of xylene.

CYCLOHEXANE: Cyclohexane may be fatal if swallowed and enters the airways. Short-term exposure to excessive concentrations can irritate the nose and throat, and cause coughing, wheezing, headache, dizziness, nausea, vomiting, lightheadedness, drowsiness, and unconsciousness. Repeated and prolonged contact with liquid may cause drying and cracking of the skin.

TOLUENE: Inhalation abuse of toluene at high concentrations has been associated with adverse effects on the liver, kidney and nervous system, and can cause nervous system depression, cardiac arrhythmias, and death. Studies of workers indicate long-term exposure may be related to impaired color vision and hearing. Some studies of workers suggest long-term exposure may be associated with neurobehavioral and mental functional changes. Laboratory animal studies indicate some changes in reproductive organs after exposure to high airborne concentrations, but no significant effects on mating performance or reproduction were observed. Positive findings include small increases in minor skeletal and visceral malformations and developmental delays following maternal exposure to high concentrations. Adverse effects on the liver, kidney, thymus and nervous system of laboratory animal were observed after very high levels of prolonged and repeated exposure.

N-HEXANE: Short-term overexposure to n-hexane vapor may cause headache, nausea, vomiting, dizziness, lightheadedness, loss of consciousness, coma, and even death in humans. Respiratory effects of overexposure may include nose, throat, and lung irritation, coughing, wheezing, and shortness of breath. Direct and prolonged contact with liquid may cause dryness and redness of the skin. Long-term or repeated overexposure to n-hexane can cause peripheral nerve damage. Initial signs are numbness of the fingers and toes. Motor/muscle weakness can occur in the digits, but may also involve muscles of the arms, forearms, and thighs. Onset of these signs may be delayed for several months to a year after initial exposure. Repeated and sustained inhalation exposure to high vapor concentrations of n-hexane resulted in degenerative changes in the testes and reduced sperm count in male laboratory rats.

BENZENE: Benzene exposure may cause skin, eye and respiratory irritation. Excessive exposures may cause central nervous system effects. Numerous studies of workers exposed to airborne benzene for prolonged or repeated periods show strong evidence that overexposure can cause cancer of the blood, AML (acute myeloid leukemia), along with other disorders indicating damage to the blood forming organs including aplastic anemia, leukopenia, thrombocytopenia, and the development of myelodysplastic syndrome. Some studies of pregnant women occupationally exposed to benzene suggest associations with an increased risk of miscarriage, stillbirth, reduced birth weight, and gestational age. Prolonged and repeated exposure to benzene has induced chromosomal aberrations in circulating human lymphocytes, in bone marrow cells of laboratory animals, and in sperm cells of both humans and laboratory animals.

1,2,4-TRIMETHYLBENZENE: Contact with eyes can cause serious eye irritation, redness, and pain. Brief inhalation exposure to high vapor concentrations may cause respiratory irritation. Overexposure by inhalation and ingestion can cause confusion, dizziness, drowsiness, headache, vomiting, cough, and sore throat. Long-term overexposure has been associated with asthmatic bronchitis. Direct prolonged skin contact can cause irritation, redness and dry skin.

ETHYLBENZENE: Lifetime exposure studies of rodents to ethylbenzene reported elevated kidney tumors in male and female rats exposed to the highest concentration tested. Tumors of the lungs were elevated in male mice and in the livers of females exposed at the highest concentration tested. Effects on the liver, kidney, lung, thyroid, and pituitary of these animals as well. Laboratory animal studies (rats) demonstrated hearing loss in combination with exposure to noise.

CUMENE: High airborne concentrations of cumene may cause irritation of the eyes, skin, and respiratory tract. Excessive exposures may cause central nervous system effects. Lifetime inhalation exposure of mice to cumene resulted in lung tumors in both males and females and liver tumors in females. Rats similarly exposed to cumene exhibited male-specific kidney tumors.

Adverse effects related to the physical, chemical and toxicological characteristics

Signs and symptoms	Overexposure to vapors may cause eye, skin and respiratory irritation. Nausea, vomiting, diarrhea, and signs of nervous system depression: headache, drowsiness, dizziness, loss of coordination, disorientation and fatigue.
Acute toxicity	None known.
Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/eye irritation	Causes serious eye irritation.
Sensitization	Not expected to be a skin or respiratory sensitizer.
Mutagenic effects	May cause genetic defects.

Carcinogenicity May cause cancer. Cancer designations are listed in the table below

Name	ACGIH (Class)	IARC (Class)	NTP	OSHA
Xylene (mixed isomers) 1330-20-7	Not classifiable (A4)	Not classifiable (3)	Not Listed	Not Listed
Toluene 108-88-3	Not classifiable (A4)	Not classifiable (3)	Not Listed	Not Listed
Benzene 71-43-2	Confirmed human carcinogen (A1)	Carcinogenic to humans (1)	Known to be human carcinogen	Known carcinogen
Ethylbenzene 100-41-4	Confirmed animal carcinogen (A3)	Possible human carcinogen (2B)	Not Listed	Not Listed
Cumene 98-82-8	Not Listed	Possible human carcinogen (2B)	Reasonably anticipated to be a human carcinogen	Not Listed

Reproductive toxicity Suspected of damaging fertility or the unborn child.

Specific Target Organ Toxicity (STOT) - single exposure May cause drowsiness or dizziness. May cause respiratory irritation.

Specific Target Organ Toxicity (STOT) - repeated exposure Causes damage to organs (blood, blood-forming organs, immune system) through prolonged or repeated exposure. May cause damage to organs (nervous system, auditory system) through prolonged or repeated exposure.

Aspiration hazard May be fatal if swallowed or vomited and enters airways.

12. ECOLOGICAL INFORMATION

Ecotoxicity This product should be considered toxic to aquatic organisms, with the potential to cause long lasting adverse effects in the aquatic environment.

Name	Fish	Crustacea	Algae/aquatic plants
Naphtha (petroleum), heavy straight-run 64741-41-9	96-hr LL50 = 1-10 mg/l Fish	48-hr EL50 = 1-10 mg/l Daphnia	72-hr EC50 = 4700 mg/l Algae
Naphtha (petroleum), light straight-run 64741-46-4	96-hr LL50 = 1-10 mg/l Fish	48-hr EL50 = 1-10 mg/l Daphnia	72-hr EC50 = 4700 mg/l Algae
Naphtha (petroleum), unsweetened 68783-12-0	96-hr LL50 = 1-10 mg/l Fish	48-hr EL50 = 1-10 mg/l Daphnia	72-hr EC50 = 11 mg/l Algae
n-Pentane 109-66-0	96-hr LC50 >1 - <10 mg/L Rainbow trout	48-hr EC50 = 9.7 mg/L Daphnia magna	-
Isopentane 78-78-4	96-hr LC50 = 3.1 mg/L Rainbow trout	48-hr EC50 >1 - <10 mg/L Daphnia magna	-
n-Hexane 110-54-3	96-hr LC50 = 2.5 mg/l Fathead minnow	-	-
Cyclohexane 110-82-7	96-hr LC50 = 3.96-5.18 mg/l Fathead minnow	48-hr EC50 = 1.7-3.5 mg/L Bay shrimp	72-hr EC50 = 500 mg/l Algae
Xylene (mixed isomers) 1330-20-7	96-hr LC50 = 8 mg/l Rainbow trout	48-hr LC50 = 3.82 mg/l Daphnia magna	72-hr EC50 = 11 mg/l Algae
Toluene 108-88-3	96-hr LC50 ≤ 10 mg/l Rainbow trout	48-hr EC50 = 5.46-9.83 mg/l Daphnia magna 48-hr EC50 = 11.5 mg/l Daphnia magna (Static)	72-hr EC50 = 12.5 mg/l Algae
Benzene 71-43-2	96-hr LC50 = 5.3 mg/l Rainbow trout (flow-through)	48-hr EC50 = 8.76-15.6 mg/l Daphnia magna (Static)	72-hr EC50 = 29 mg/l Algae
1,2,4-Trimethylbenzene 95-63-6	96-hr LC50 = 7.19-8.28 mg/l Fathead minnow (flow-through)	48-hr EC50 = 6.14 mg/L Daphnia magna	-

Ethylbenzene 100-41-4	96-hr LC50 = 4 mg/L Rainbow trout	48-hr EC50 = 1-4 mg/L Daphnia magna	72-hr EC50 = 1.7-7.6 mg/l Algae
Cumene 98-82-8	96-hr LC50 = 6.04-6.61 mg/l Fathead minnow (Flow-through) 96-hr LC50 = 2.7 mg/l Rainbow trout (semi-static)	48-hr EC50 = 7.9-14.1 mg/l Daphnia magna (static)	72-hr EC50 = 2.6 mg/l Algae

Persistence and degradability Expected to be inherently biodegradable.

Bioaccumulation Has the potential to bioaccumulate.

Mobility in soil May partition into air, soil and water.

Other adverse effects No information available.

13. DISPOSAL CONSIDERATIONS

Description of waste residues This material may be a flammable liquid waste.

Safe handling of wastes Handle in accordance with applicable local, state, and federal regulations. Use personal protection measures as required. Use appropriate grounding and bonding practices. Use only non-sparking tools. Do not expose to heat, open flames, strong oxidizers or other sources of ignition. No smoking.

Disposal of wastes / methods of disposal The user is responsible for determining if any discarded material is a hazardous waste (40 CFR 262.11). Dispose of in accordance with federal, state and local regulations.

Contaminated packaging disposal Empty containers should be completely drained and then discarded or recycled, if possible. Do not cut, drill, grind or weld on empty containers since explosive residues may be present. Dispose of in accordance with federal, state and local regulations.

14. TRANSPORT INFORMATION

DOT

UN/Identification No: UN 1268
 UN Proper Shipping Name: Petroleum Distillates, N.O.S.
 Transport Hazard Class(es): 3
 Packing Group: I

IATA

UN/Identification No: UN 1268
 UN Proper Shipping Name: Petroleum Distillates, N.O.S.
 Transport Hazard Class(es): 3
 Packing Group: I
 ERG code: 3L

IMDG

UN/Identification No: UN 1268
 UN Proper Shipping Name: Petroleum Distillates, N.O.S.
 Transport Hazard Class(es): 3
 Packing Group: I
 EmS No: F-E, S-E
 Marine Pollutant: Yes

15. REGULATORY INFORMATION

Regulatory Information

US TSCA Chemical Inventory This product and/or its components are listed on the TSCA Chemical Inventory or are exempt.

Canada DSL/NDSL Inventory This product and/or its components are listed either on the Domestic Substances List (DSL) or are exempt.

EPA Superfund Amendment & Reauthorization Act (SARA)

SARA Section 302 This product does not contain any component(s) included on EPA's Extremely Hazardous Substance (EHS) List above the de minimis threshold.

SARA Section 304 This product may contain component(s) identified either as an EHS or a CERCLA Hazardous substance which in case of a spill or release may be subject to SARA reporting requirements:

Name	Hazardous Substances RQs
n-Hexane 110-54-3	5000 lb 2270 kg
Cyclohexane 110-82-7	1000 lb 454 kg
Xylene (mixed isomers) 1330-20-7	100 lb 45.4 kg
Toluene 108-88-3	1000 lb 454 kg
Benzene 71-43-2	10 lb 4.54 kg
Ethylbenzene 100-41-4	1000 lb 454 kg
Cumene 98-82-8	5000 lb 2270 kg

SARA Section 311/312 The following EPA hazard categories apply to this product:

- Flammable
- Acute toxicity
- Skin corrosion or irritation
- Serious eye damage or eye irritation
- Reproductive toxicity
- Germ cell mutagenicity
- Carcinogenicity
- Specific target organ toxicity
- Aspiration hazard

SARA Section 313 This product may contain component(s), which if in exceedance of the de minimus threshold, may be subject to the reporting requirements of SARA Title III Section 313 Toxic Release Reporting (Form R).

Name	CERCLA/SARA 313 Emission reporting
Xylene (mixed isomers) 1330-20-7	1.0 % de minimis concentration
Benzene 71-43-2	0.1 % de minimis concentration
1,2,4-Trimethylbenzene 95-63-6	1.0 % de minimis concentration
Ethylbenzene 100-41-4	0.1 % de minimis concentration
Cumene 98-82-8	0.1 % de minimis concentration

U.S. State Regulations

California Proposition 65

This product can expose you to chemicals which are known to the State of California to cause cancer, birth defects or other reproductive harm.

Name	California Proposition 65
n-Hexane 110-54-3	Male reproductive toxicity, initial date 12/15/17
Toluene 108-88-3	Developmental toxicity, initial date 01/01/91
Benzene 71-43-2	Carcinogen, initial date 02/27/87 Male developmental toxicity, initial date 12/26/97
Ethylbenzene 100-41-4	Carcinogen, initial date 06/11/04
Cumene 98-82-8	Carcinogen, initial date 04/06/10

For more information, go to www.P65Warnings.ca.gov.

State Right-To-Know Regulations The following component(s) of this material are identified on the regulatory lists below:

Name	New Jersey Right-To-Know	Pennsylvania Right-To-Know	Massachusetts Right-To-Know
n-Pentane 109-66-0	Listed	Listed	Listed
Isopentane 78-78-4	Listed	Listed	Listed
n-Hexane 110-54-3	Listed	Listed	Listed
n-Butane 106-97-8	Listed	Listed	Listed
Propane 74-98-6	Listed	Listed	Listed
Isobutane 75-28-5	Listed	Listed	Listed
Cyclohexane 110-82-7	Listed	Listed	Listed
Xylene (mixed isomers) 1330-20-7	Listed	Listed	Listed
Toluene 108-88-3	Listed	Listed	Listed
Benzene 71-43-2	Listed	Listed	Listed
1,2,4-Trimethylbenzene 95-63-6	Listed	Listed	Listed
Ethylbenzene 100-41-4	Listed	Listed	Listed
Cumene 98-82-8	Listed	Listed	Listed

16. OTHER INFORMATION

Prepared by

Toxicology & Product Safety

NFPA



Revision Notes

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Disclaimer

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 is intended as guidance for safe handling, use, processing, storage, transportation, accidental release, clean-up and disposal and is not 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.