

1. Product and Company Identification

Material name 14# Natural Gasoline
Version # 01
Revision date 06-02-2010
CAS # Mixture
Product use Fuel.
Manufacturer/Supplier Devon US Operations
 20 North Broadway
 Oklahoma City, OK 73102-8260
 Telephone: (405) 235-3611
 -
 Devon Canadian Operations
 Calgary, AB. T2P 4H2
 2000, 400 – 3rd Avenue SW.
 Telephone: (403) 232-7100

Emergency Emergency Chemtrec:
 Within the USA (800) 424-9300
 Outside the USA (703) 527-3887
 Devon Canada Emergency Phone:
 (403) 232-7100

2. Hazards Identification

Physical state Liquid.
Appearance Colorless liquid.
Emergency overview DANGER

Extremely flammable liquid and vapor - vapor may cause flash fire. Harmful or fatal if swallowed. Can enter lungs and cause damage. Causes skin irritation. May cause eye and respiratory tract irritation. Vapors may cause drowsiness and dizziness.

Contains n-hexane. Prolonged and/or repeated exposures may cause damage to the peripheral nervous system (e.g. fingers, feet, arms etc.). Contains benzene. May cause cancer. May cause heritable genetic damage. May cause drowsiness, dizziness, loss of consciousness and death.

OSHA regulatory status This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).

Potential health effects

Routes of exposure Ingestion. Skin contact. Eye contact. Inhalation.

Eyes May cause eye irritation. Exposed individuals may experience eye tearing, redness, and discomfort.

Skin Causes skin irritation. Human and animal studies show that benzene is absorbed through the skin. However, absorption through the skin is normally low because benzene evaporates rapidly. In most cases, any skin contact would also involve significant inhalation exposure.

Inhalation Breathing of high concentrations may cause dizziness, light-headedness, headache, nausea and loss of coordination. Continued inhalation may result in unconsciousness. Contains benzene which may cause cancer and cause blood disorders. Contains n-hexane which may cause peripheral nerve damage.

Ingestion Harmful if swallowed. Can enter lungs and cause damage.

Chronic effects Prolonged or repeated contact with skin may cause redness, itching, irritation, eczema/chapping and oil acne. Prolonged and repeated contact with the product may cause skin cancer. May cause damage to the liver. Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia. Contains benzene. Human epidemiology studies indicate that prolonged and/or repeated overexposure to benzene may cause damage to the blood-producing system and serious blood disorders, including leukemia. Animal tests suggest that prolonged and/or repeated overexposure to benzene may damage the embryo/fetus. The relevance of these animal studies to humans has not been fully established. May cause cancer. Contains n-hexane. Prolonged and/or repeated exposures may cause damage to the peripheral nervous system (e.g. fingers, feet, arms etc.).

Signs and symptoms Irritation of eyes and mucous membranes. Skin irritation. Defatting of the skin. Dermatitis. May irritate and cause stomach pain, vomiting, diarrhea and nausea.

Potential environmental effects Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Pentane	109-66-0	15-40
Isopentane	78-78-4	10-30
n-Hexane	110-54-3	7-13
Heptane	142-82-5	1-5
Methylcyclohexane	108-87-2	1-5
Cyclohexane	110-82-7	1-5
2-Methylpentane	107-83-5	7-13
3-Methylpentane	96-14-0	3-7
Toluene	108-88-3	1-5
2,2-Dimethylbutane	75-83-2	1-5
2,3-Dimethylbutane	79-29-8	1-5
Benzene	71-43-2	0.5-1
Methylcyclopentane	96-37-7	1-5
Dimethylcyclopentanes	Mixtrue	1-5
2-Methylhexane	591-76-4	1-5
3-Methylhexane	589-34-4	1-5
Methylheptanes	Mixture	1-5
Dimethylpentanes	Mixture	1-5
Dimethylhexanes	Mixture	1-5

Composition comments The full text for all R-phrases is displayed in Section 16 of the MSDS. All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First Aid Measures

First aid procedures

- Eye contact** Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. Get medical attention if irritation develops and persists.
- Skin contact** Remove contaminated clothing. Wash with soap and water. In case of rashes, wounds or other skin disorders: Seek medical attention and bring along these instructions.
- Inhalation** Move to fresh air. If breathing is difficult, give oxygen. Get medical attention if discomfort develops or persists.
- Ingestion** Immediately rinse mouth and drink plenty of water or milk. Keep person under observation. Do not induce vomiting. If vomiting occurs, keep head low. Seek immediate medical attention or advice.

Notes to physician

Treat symptomatically. The effects might be delayed.

General advice

Get medical attention if any discomfort develops. Refer to the Emergency Response Procedures for Ships Carrying Dangerous Goods (EmS Guide) and the Medical First Aid Guide for Use in Accidents Involving Dangerous Goods (MFAg) as necessary.

5. Fire Fighting Measures

Flammable properties

The product is extremely flammable, and explosive vapor/air mixtures may be formed even at normal room temperatures. Material will float and can be re-ignited on surface of water.

Extinguishing media

- Suitable extinguishing media** Extinguish with foam, carbon dioxide, dry powder or water fog.

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

Protection of firefighters

Specific hazards arising from the chemical Thermal decomposition may produce smoke, oxides of carbon and lower molecular weight organic compounds whose composition have not been characterized. Sulphur Oxides (SOx). Nitrogen Oxides (NOx).

Protective equipment and precautions for firefighters Move containers from fire area if you can do it without risk. Use water spray to cool unopened containers. Cool containers with flooding quantities of water until well after fire is out.

Special protective equipment for fire-fighters Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with full face-piece operated in positive pressure mode. Use approved gas detectors in confined spaces.

Specific methods In the event of fire and/or explosion do not breathe fumes. Evacuate area. Water spray should be used to cool containers.

6. Accidental Release Measures

Personal precautions Eliminate all sources of ignition in vicinity of released vapors. Evacuate all non-essential personnel to an area upwind. Stop leak if possible without any risk. Ventilate enclosed areas to prevent formation of toxic, flammable or oxygen deficient atmospheres. Water spray may be used to reduce vapors. Avoid vapor cloud even with proper respiratory protective equipment. Use suitable protective equipment (section 8). Follow all fire-fighting procedures (section 5). In case of spills, beware of slippery floors and surfaces.

Environmental precautions Prevent further leakage or spillage if safe to do so. Prevent material from entering drains, sewers or low lying areas. See section 13 for waste disposal information. Do not contaminate water.

Methods for containment Stop leak if you can do so without risk. Prevent entry into waterways, sewer, basements or confined areas.

Methods for cleaning up Remove sources of ignition. Beware of the explosion danger. Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible.

Small Spills: Absorb spillage with non-combustible, absorbent material.

Large Spills: Remove with vacuum trucks or pump to storage/salvage vessels. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Wash area with soap and water. Ensure that waste and contaminated materials are collected and removed from the work area as soon as possible in a suitably labeled container.

7. Handling and Storage

Handling Access to work area should be restricted to people handling the product only. Caution! Vapors may be present in the headspace of closed containers. Ventilate after opening. Avoid contact with eyes, skin, and clothing. Avoid inhalation of vapors. Wear appropriate personal protective equipment. Immediately change contaminated clothes. The product is extremely flammable, and explosive vapor/air mixtures may be formed even at normal room temperatures. Ground container and transfer equipment to eliminate static electric sparks. Vapors are heavier than air and may travel along the floor and in the bottom of containers. Do not eat, drink or smoke when using the product. Be aware of potential for surfaces to become slippery. Observe good industrial hygiene practices. Special precautions should be taken when entering or handling equipment in this type of produced oil service because of possible radioactive contamination. All equipment should be checked for radioactivity or opened to the atmosphere and have forced ventilation applied for at least 4 hours prior to entry or handling. Avoid direct skin contact with any surface. Avoid generation of dust, smoke, fumes, etc. in the work area, or if they cannot be avoided, a tested and certified radionuclide dust respirator should be worn. Smoking, eating, or drinking should be prohibited when working with the equipment. Employees should wash thoroughly with soap and water and discard contaminated clothing after entering or handling the equipment.

Storage Follow rules for flammable liquids. Keep away from heat, sparks and open flame. Keep in a cool, well-ventilated place. Keep away from food, drink and animal feeding stuffs. Store away from incompatible materials.

8. Exposure Controls / Personal Protection

Occupational exposure limits

ACGIH Components	Type	Value
2,2-Dimethylbutane (75-83-2)	STEL	1000 ppm
	TWA	500 ppm
2,3-Dimethylbutane (79-29-8)	STEL	1000 ppm

Components	Type	Value
2-Methylhexane (591-76-4)	TWA	500 ppm
	STEL	500 ppm
2-Methylpentane (107-83-5)	TWA	400 ppm
	STEL	1000 ppm
3-Methylhexane (589-34-4)	TWA	500 ppm
	STEL	500 ppm
3-Methylpentane (96-14-0)	TWA	400 ppm
	STEL	1000 ppm
Benzene (71-43-2)	TWA	500 ppm
	STEL	2.5 ppm
Cyclohexane (110-82-7)	TWA	0.5 ppm
	STEL	100 ppm
Heptane (142-82-5)	TWA	500 ppm
	STEL	500 ppm
Isopentane (78-78-4)	TWA	400 ppm
	STEL	600 ppm
Methylcyclohexane (108-87-2)	TWA	500 ppm
	STEL	500 ppm
n-Hexane (110-54-3)	TWA	400 ppm
	STEL	50 ppm
Pentane (109-66-0)	TWA	600 ppm
	STEL	600 ppm
Toluene (108-88-3)	TWA	20 ppm
	STEL	20 ppm

U.S. - OSHA

Components	Type	Value
2,2-Dimethylbutane (75-83-2)	STEL	3600 mg/m3
	TWA	1000 ppm
2,3-Dimethylbutane (79-29-8)	STEL	500 ppm
	TWA	1800 mg/m3
2-Methylhexane (591-76-4)	STEL	3600 mg/m3
	TWA	1000 ppm
2-Methylpentane (107-83-5)	STEL	500 ppm
	TWA	1800 mg/m3
3-Methylhexane (589-34-4)	STEL	2000 mg/m3
	TWA	500 ppm
3-Methylpentane (96-14-0)	STEL	500 ppm
	TWA	2000 mg/m3
Benzene (71-43-2)	STEL	500 ppm
	TWA	2000 mg/m3
Cyclohexane (110-82-7)	STEL	1600 mg/m3
	TWA	400 ppm
Heptane (142-82-5)	STEL	1000 ppm
	TWA	3600 mg/m3
Isopentane (78-78-4)	STEL	1800 mg/m3
	TWA	500 ppm
Methylcyclohexane (108-87-2)	STEL	500 ppm
	TWA	2000 mg/m3
n-Hexane (110-54-3)	STEL	500 ppm
	TWA	2000 mg/m3
Pentane (109-66-0)	STEL	500 ppm
	TWA	1600 mg/m3
Toluene (108-88-3)	STEL	400 ppm
	TWA	1000 ppm
2,2-Dimethylbutane (75-83-2)	STEL	3600 mg/m3
	TWA	1800 mg/m3
2,3-Dimethylbutane (79-29-8)	STEL	500 ppm
	TWA	1800 mg/m3
2-Methylhexane (591-76-4)	STEL	500 ppm
	TWA	2000 mg/m3
2-Methylpentane (107-83-5)	STEL	500 ppm
	TWA	1600 mg/m3
3-Methylhexane (589-34-4)	STEL	400 ppm
	TWA	1000 ppm
3-Methylpentane (96-14-0)	STEL	1000 ppm
	TWA	3600 mg/m3
Benzene (71-43-2)	STEL	1800 mg/m3
	TWA	500 ppm
Cyclohexane (110-82-7)	STEL	25 ppm
	TWA	5 ppm
Heptane (142-82-5)	STEL	1 ppm
	TWA	300 ppm
Isopentane (78-78-4)	STEL	300 ppm
	TWA	1050 mg/m3
Methylcyclohexane (108-87-2)	STEL	300 ppm
	TWA	1050 mg/m3
n-Hexane (110-54-3)	STEL	500 ppm
	TWA	2000 mg/m3
Pentane (109-66-0)	STEL	500 ppm
	TWA	2000 mg/m3
Toluene (108-88-3)	STEL	500 ppm
	TWA	500 ppm

Components	Type	Value
Methylcyclohexane (108-87-2)		2000 mg/m3
	TWA	1600 mg/m3
		400 ppm
n-Hexane (110-54-3)	PEL	500 ppm
	TWA	2000 mg/m3
		400 ppm
Pentane (109-66-0)	PEL	1600 mg/m3
	TWA	1800 mg/m3
		500 ppm
Toluene (108-88-3)	PEL	180 mg/m3
	STEL	1000 ppm
	TWA	2950 mg/m3
Toluene (108-88-3)	STEL	2250 mg/m3
	TWA	750 ppm
		600 ppm
Toluene (108-88-3)	Ceiling	1800 mg/m3
	STEL	300 ppm
	TWA	150 ppm
Toluene (108-88-3)		560 mg/m3
		200 ppm
		375 mg/m3
Canada - Alberta		
Components	Type	Value
2,2-Dimethylbutane (75-83-2)	STEL	1000 ppm
	TWA	3500 mg/m3
2,3-Dimethylbutane (79-29-8)	TWA	1760 mg/m3
	STEL	500 ppm
2-Methylpentane (107-83-5)	STEL	3500 mg/m3
	TWA	1000 ppm
3-Methylpentane (96-14-0)	TWA	1760 mg/m3
	STEL	500 ppm
Benzene (71-43-2)	STEL	1000 ppm
	TWA	3500 mg/m3
Cyclohexane (110-82-7)	TWA	1760 mg/m3
	STEL	500 ppm
Heptane (142-82-5)	STEL	1000 ppm
	TWA	3500 mg/m3
Isopentane (78-78-4)	TWA	1760 mg/m3
	STEL	500 ppm
Methylcyclohexane (108-87-2)	STEL	1000 ppm
	TWA	3500 mg/m3
n-Hexane (110-54-3)	TWA	1760 mg/m3
	STEL	500 ppm
Pentane (109-66-0)	TWA	1640 mg/m3
	STEL	2050 mg/m3
Toluene (108-88-3)	TWA	400 ppm
	STEL	600 ppm

Canada - British Columbia**Components****Type****Value**

2,2-Dimethylbutane (75-83-2)	TWA	200 ppm
2,3-Dimethylbutane (79-29-8)	TWA	200 ppm
2-Methylhexane (591-76-4)	STEL	500 ppm
	TWA	400 ppm
2-Methylpentane (107-83-5)	TWA	200 ppm
	STEL	500 ppm
3-Methylhexane (589-34-4)	TWA	400 ppm
	TWA	200 ppm
3-Methylpentane (96-14-0)	STEL	2.5 ppm
	TWA	0.5 ppm
Benzene (71-43-2)	TWA	100 ppm
	STEL	500 ppm
Cyclohexane (110-82-7)	TWA	400 ppm
	STEL	500 ppm
Heptane (142-82-5)	TWA	400 ppm
	TWA	600 ppm
Isopentane (78-78-4)	TWA	400 ppm
Methylcyclohexane (108-87-2)	TWA	400 ppm
n-Hexane (110-54-3)	TWA	20 ppm
Pentane (109-66-0)	TWA	600 ppm
Toluene (108-88-3)	TWA	20 ppm

Additional exposure data

OSHA: The acceptable max. peak above the ceiling concentration for an 8-hour shift is: 50 ppm. The acceptable duration of the peak above the ceiling concentration is: 10 minutes once, only if no other measureable exposure occurs

Engineering controls

Explosion proof exhaust ventilation should be used. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Provide adequate ventilation and minimize the risk of inhalation of vapors. Provide easy access to water supply and eye wash facilities.

Personal protective equipment**Eye / face protection**

Wear goggles/face shield.

Skin protection

Wear protective gloves. Be aware that the liquid may penetrate the gloves. Frequent change is advisable. Protection suit must be worn. Anti-static and flame-retardant protective clothing is recommended. Suitable gloves can be recommended by the glove supplier.

Respiratory protection

Wear approved respiratory protection when working with this material unless ventilation is adequate to keep airborne concentrations below recommended exposure standards.

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Private clothes and working clothes should be kept separately. Observe any medical surveillance requirements.

9. Physical & Chemical Properties

Appearance	Colorless liquid.
Color	Colorless.
Odor	Hydrocarbon-like.
Odor threshold	Not available.
Physical state	Liquid.
Form	Liquid.
pH	Not available.
Melting point	Not available.
Freezing point	Not available.
Boiling point	57.9 °F (14.4 °C)
Flash point	0.5 °F (-17.5 °C) Tag Closed Cup
Evaporation rate	> 1
Flammability	Not available.
Flammability limits in air, upper, % by volume	7.1
Flammability limits in air, lower, % by volume	1.3
Vapor pressure	11.8 psi (38°C/ 100°F)
Vapor density	5.46 (Air=1)

Specific gravity	0.668 (Water=1)
Solubility (water)	Slightly.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	536 °F (280 °C)
Decomposition temperature	Not available.
VOC	5.6 (pounds / gallon (663 grams / liter)

10. Chemical Stability & Reactivity Information

Chemical stability	Stable at normal conditions.
Conditions to avoid	Heat, sparks, flames, elevated temperatures. Contact with incompatible materials.
Incompatible materials	Strong acids. Strong oxidizing agents.
Hazardous decomposition products	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.
Possibility of hazardous reactions	Hazardous polymerization does not occur.

11. Toxicological Information

Toxicological data

Components

Methylcyclohexane (108-87-2)

Toluene (108-88-3)

Pentane (109-66-0)

Cyclohexane (110-82-7)

Heptane (142-82-5)

3-Methylhexane (589-34-4)

2-Methylhexane (591-76-4)

Benzene (71-43-2)

Isopentane (78-78-4)

Test Results

Acute Inhalation LC25-R Rabbit: 7300 mg/l

Acute Oral LD50 Rat: 2600 - 7500 mg/kg

Acute Inhalation LC50 Rat: 364 mg/l 4 Hours

Acute Oral LD50 Rat: 12705 mg/kg

Acute Inhalation LC50 Rat: 103 mg/l 4 Hours

Acute Inhalation LC50 Rat: 103 mg/l 4 Hours

Acute Inhalation LC50 Rat: 103 mg/l 4 Hours

Acute Inhalation LC50 Mouse: 9980 mg/l

Acute Inhalation LC50 Rat: 10000 mg/l 7 Hours

Acute Oral LD50 Mouse: 4700 mg/kg

Acute Oral LD50 Rat: 3306 mg/kg

Acute Other LD50 Mouse: 340 mg/kg

Acute Other LD50 Mouse: 0.000001 ml/kg

Acute Other LD50 Rat: 2.89 mg/kg

Acute Inhalation LC50 Mouse: 450 mg/l 2 Hours

Toxicological information

This product may contain detectable but varying quantities of the naturally occurring radioactive substance radon 222. The amount in the gas itself is not hazardous, but since radon rapidly decays ($t_{1/2} = 3.82$ days) to form other radioactive elements including lead 210, polonium 210, and bismuth 210, equipment may be radioactive. The radon daughters are solids and therefore may attach to dust particles or form films and sludges in equipment. Inhalation, ingestion or skin contact with radon daughters can lead to the deposition of radioactive material in the lungs, bone, blood forming organs, intestinal tract, kidney and colon. Occupational exposure to radon and radon daughters has been associated with an increased risk of lung cancer in underground uranium miners. Follow the special precautions listed in handling and storage section of this document (see section 7).

Acute effects

Breathing of high concentrations may cause dizziness, light-headedness, headache, nausea and loss of coordination. Continued inhalation may result in unconsciousness. May irritate and cause stomach pain, vomiting, diarrhea and nausea.

Local effects

Irritating to skin. May cause eye and respiratory tract irritation.

Sensitization

May cause eczema-like skin disorders (dermatitis). May cause photosensitization, evidenced by repeated occurrence of a dermatitic rash on exposure to sunlight.

Chronic effects Prolonged or repeated contact with skin may cause redness, itching, irritation, eczema/chapping and oil acne. May cause damage to the liver. Contains benzene. Human epidemiology studies indicate that prolonged and/or repeated overexposure to benzene may cause damage to the blood-producing system and serious blood disorders, including leukemia. Animal tests suggest that prolonged and/or repeated overexposure to benzene may damage the embryo/fetus. The relevance of these animal studies to humans has not been fully established. Contains n-hexane. Prolonged and/or repeated exposures may cause damage to the peripheral nervous system (e.g. fingers, feet, arms etc.).

Carcinogenicity May cause cancer. Contains benzene, a known human carcinogen, which may cause leukemia.

ACGIH Carcinogens

Benzene (CAS 71-43-2)	A1 Confirmed human carcinogen.
Toluene (CAS 108-88-3)	A4 Not classifiable as a human carcinogen.

IARC Monographs. Overall Evaluation of Carcinogenicity

Benzene (CAS 71-43-2)	1 Carcinogenic to humans.
Toluene (CAS 108-88-3)	3 Not classifiable as to carcinogenicity to humans.

US NTP Report on Carcinogens: Known carcinogen

Benzene (CAS 71-43-2)	Known carcinogen.
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US OSHA Specifically Regulated Substances: Cancer hazard

Benzene (CAS 71-43-2)	Cancer hazard.
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Epidemiology Pre-existing skin conditions including dermatitis might be aggravated by exposure to this product.

Mutagenicity Knowledge about mutagenicity is incomplete.

Reproductive effects Knowledge about reproductive effects is incomplete.

Further information Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia. Components of the product may be absorbed into the body through the skin.

12. Ecological Information

Ecotoxicological data

Components

Test Results

Methylcyclohexane (108-87-2)	LC50 Striped bass (<i>Morone saxatilis</i>): 5.8 mg/l 96 hours
Toluene (108-88-3)	EC50 Water flea (<i>Daphnia magna</i>): 5.46 - 9.83 mg/l 48 hours LC50 Coho salmon, silver salmon (<i>Oncorhynchus kisutch</i>): 5.5 mg/l 96 hours
Pentane (109-66-0)	EC50 Daphnia: 2.3 mg/l 48 Hours LC50 Fish: 3.1 mg/l 96 Hours
n-Hexane (110-54-3)	LC50 Fathead minnow (<i>Pimephales promelas</i>): 2.101 - 2.981 mg/l 96 hours
Cyclohexane (110-82-7)	LC50 Fathead minnow (<i>Pimephales promelas</i>): 3.961 - 5.181 mg/l 96 hours
Heptane (142-82-5)	LC50 Mozambique tilapia (<i>Tilapia mossambica</i>): 375 mg/l 96 hours
3-Methylhexane (589-34-4)	LC50 Mozambique tilapia (<i>Tilapia mossambica</i>): 375 mg/l 96 hours
2-Methylhexane (591-76-4)	LC50 Mozambique tilapia (<i>Tilapia mossambica</i>): 375 mg/l 96 hours
Benzene (71-43-2)	EC50 Water flea (<i>Daphnia magna</i>): 8.76 - 15.6 mg/l 48 hours EC50 Water flea (<i>Daphnia magna</i>): 8.76 - 15.6 mg/l 48 Hours LC50 Rainbow trout, donaldson trout (<i>Oncorhynchus mykiss</i>): 5 mg/l 96 Hours

Ecotoxicity Oil spills are generally hazardous to the environment.

Environmental effects The product contains volatile organic compounds which have a photochemical ozone creation potential.

Aquatic toxicity Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Persistence and degradability The degradability of the product has not been stated. The product meets the definition of the International Oil Pollution Compensation (IPOC) Fund as being a "persistent" oil.

Bioaccumulation / Accumulation No data available on bioaccumulation.

Partition coefficient (n-octanol/water) Not available.

Mobility in environmental media The product is insoluble in water. It will spread on the water surface while some of the components will eventually sediment in water systems. The volatile components of the product will spread in the atmosphere.

13. Disposal Considerations

Waste codes D001: Waste Flammable material with a flash point <140 °F

Disposal instructions Dispose in accordance with all applicable regulations. This material and/or its container must be disposed of as hazardous waste.

Waste from residues / unused products Follow all applicable MARPOL requirements for disposal of waste.

Contaminated packaging Dispose of in accordance with local regulations.

14. Transport Information

DOT

Basic shipping requirements:

UN number UN1203

Proper shipping name Gasoline

Hazard class 3

Packing group II

Environmental hazards

Marine pollutant Yes

Labels required 3

Additional information:

Special provisions 139, B33, B101, T8

Packaging exceptions 150

Packaging non bulk 202

Packaging bulk 242

ERG number 128

IATA

Basic shipping requirements:

UN number 1203

Proper shipping name Gasoline

Hazard class 3

Packing group II

IMDG

Basic shipping requirements:

UN number 1203

Proper shipping name Gasoline

Hazard class 3

Packing group II

Environmental hazards

Marine pollutant Yes

EmS No. F-E, S-E

TDG

Basic shipping requirements:

Proper shipping name Gasoline

Hazard class 3

UN number UN1203

Packing group II

Marine pollutant Yes

Additional information:

Special provisions 17



DOT



IATA



IMDG



TDG

15. Regulatory Information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

All components are on the U.S. EPA TSCA Inventory List.

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: De minimis concentration

Benzene (CAS 71-43-2)	0.1 %
Cyclohexane (CAS 110-82-7)	1.0 %
n-Hexane (CAS 110-54-3)	1.0 %
Toluene (CAS 108-88-3)	1.0 %

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance

Benzene (CAS 71-43-2)	Listed.
Cyclohexane (CAS 110-82-7)	Listed.
n-Hexane (CAS 110-54-3)	Listed.
Toluene (CAS 108-88-3)	Listed.

US TSCA Section 12(b) Export Notification: Export Notification requirement/De minimis concentration

2-Methylhexane (CAS 591-76-4)	1.0 % One-Time Export Notification only.
3-Methylhexane (CAS 589-34-4)	1.0 % One-Time Export Notification only.
Heptane (CAS 142-82-5)	1.0 % One-Time Export Notification only.
Pentane (CAS 109-66-0)	1.0 % One-Time Export Notification only.

CERCLA (Superfund) reportable quantity (lbs)

Pentane 100
 Isopentane 100
 n-Hexane 100
 Heptane 100
 Methylcyclohexane 100
 Cyclohexane 100
 2-Methylpentane 100
 3-Methylpentane 100
 Toluene 100
 2,2-Dimethylbutane 100
 2,3-Dimethylbutane 100
 Benzene 10
 Methylcyclopentane 100
 2-Methylhexane 100
 3-Methylhexane 100

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate Hazard - Yes
 Delayed Hazard - Yes
 Fire Hazard - Yes
 Pressure Hazard - No
 Reactivity Hazard - No

Section 302 extremely hazardous substance	No
Section 311 hazardous chemical	No
Drug Enforcement Agency (DEA)	Not controlled
Canadian regulations	This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.
WHMIS status	Controlled
WHMIS classification	B2 - Flammable/Combustible D2A - Other Toxic Effects-VERY TOXIC D2B - Other Toxic Effects-TOXIC

WHMIS labeling



State regulations This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

US - California Hazardous Substances (Director's): Listed substance

2,2-Dimethylbutane (CAS 75-83-2)	Listed.
2,3-Dimethylbutane (CAS 79-29-8)	Listed.
2-Methylhexane (CAS 591-76-4)	Listed.
2-Methylpentane (CAS 107-83-5)	Listed.
3-Methylhexane (CAS 589-34-4)	Listed.
3-Methylpentane (CAS 96-14-0)	Listed.
Benzene (CAS 71-43-2)	Listed.
Cyclohexane (CAS 110-82-7)	Listed.
Heptane (CAS 142-82-5)	Listed.
Methylcyclohexane (CAS 108-87-2)	Listed.
n-Hexane (CAS 110-54-3)	Listed.
Pentane (CAS 109-66-0)	Listed.
Toluene (CAS 108-88-3)	Listed.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Benzene (CAS 71-43-2)	Listed.
Toluene (CAS 108-88-3)	Listed.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

Benzene (CAS 71-43-2)	Listed: February 27, 1987 Carcinogenic.
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US - California Proposition 65 - CRT: Listed date/Developmental toxin

Benzene (CAS 71-43-2)	Listed: December 26, 1997 Developmental toxin.
Toluene (CAS 108-88-3)	Listed: January 1, 1991 Developmental toxin.

US - California Proposition 65 - CRT: Listed date/Female reproductive toxin

Toluene (CAS 108-88-3)	Listed: August 7, 2009 Female reproductive toxin.
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US - California Proposition 65 - CRT: Listed date/Male reproductive toxin

Benzene (CAS 71-43-2)	Listed: December 26, 1997 Male reproductive toxin.
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US - Massachusetts RTK - Substance: Listed substance

2,2-Dimethylbutane (CAS 75-83-2)	Listed.
2,3-Dimethylbutane (CAS 79-29-8)	Listed.
2-Methylhexane (CAS 591-76-4)	Listed.
2-Methylpentane (CAS 107-83-5)	Listed.
3-Methylhexane (CAS 589-34-4)	Listed.
3-Methylpentane (CAS 96-14-0)	Listed.
Benzene (CAS 71-43-2)	Listed.
Cyclohexane (CAS 110-82-7)	Listed.
Heptane (CAS 142-82-5)	Listed.
Isopentane (CAS 78-78-4)	Listed.
Methylcyclohexane (CAS 108-87-2)	Listed.
Methylcyclopentane (CAS 96-37-7)	Listed.
n-Hexane (CAS 110-54-3)	Listed.
Pentane (CAS 109-66-0)	Listed.
Toluene (CAS 108-88-3)	Listed.

US - New Jersey Community RTK (EHS Survey): Reportable threshold

Benzene (CAS 71-43-2)	500 LBS
Cyclohexane (CAS 110-82-7)	500 LBS
Isopentane (CAS 78-78-4)	500 LBS
n-Hexane (CAS 110-54-3)	500 LBS
Pentane (CAS 109-66-0)	500 LBS
Toluene (CAS 108-88-3)	500 LBS

US - New Jersey RTK - Substances: Listed substance

2,2-Dimethylbutane (CAS 75-83-2)	Listed.
2,3-Dimethylbutane (CAS 79-29-8)	Listed.
Benzene (CAS 71-43-2)	Listed.
Heptane (CAS 142-82-5)	Listed.
Isopentane (CAS 78-78-4)	Listed.

US - Pennsylvania RTK - Hazardous Substances: Listed substance

2,2-Dimethylbutane (CAS 75-83-2)	Listed.
2,3-Dimethylbutane (CAS 79-29-8)	Listed.
2-Methylhexane (CAS 591-76-4)	Listed.
2-Methylpentane (CAS 107-83-5)	Listed.
3-Methylhexane (CAS 589-34-4)	Listed.
3-Methylpentane (CAS 96-14-0)	Listed.
Benzene (CAS 71-43-2)	Listed.
Cyclohexane (CAS 110-82-7)	Listed.
Heptane (CAS 142-82-5)	Listed.
Isopentane (CAS 78-78-4)	Listed.
Methylcyclohexane (CAS 108-87-2)	Listed.
Methylcyclopentane (CAS 96-37-7)	Listed.
n-Hexane (CAS 110-54-3)	Listed.
Pentane (CAS 109-66-0)	Listed.
Toluene (CAS 108-88-3)	Listed.

US - Pennsylvania RTK - Hazardous Substances: Special hazard

Benzene (CAS 71-43-2)	Special hazard.
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16. Other Information

Further information	HMIS® is a registered trade and service mark of the NPCA. B - Safety Glasses, Gloves
HMIS® ratings	Health: 1* Flammability: 4 Physical hazard: 0 Personal protection: B
NFPA ratings	Health: 1 Flammability: 4 Instability: 0
Disclaimer	This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.
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