



# Safety Data Sheet

## **SECTION 1. IDENTIFICATION**

### **Product Identifier:**

Trade Name:	Straight Run Gasoline
Product Codes:	Various
SDS Number:	C-01-000
Synonyms:	Naphtha – SRG, Petroleum Naphtha, Straight Run Gasoline, SRG, Commodity Code 07-001
Product Family:	Petroleum Hydrocarbons
Product Description:	Low Boiling Point Naphthas (Gasoline)
Date of first Issue:	January 28, 2016
Version:	00
Supersedes date:	N/A

### **Relevant identified uses of the substance or mixture and uses advised against**

Identified uses:	Refinery intermediate
Uses advised against	None known

### **Details of the supplier of the safety data sheet**

Company name:	Axeon Refining, LLC
Address:	400 Grove Road West Deptford, NJ 08066
Technical service:	+ 1-856-224-7409
24-Hour Contact:	+ 1-856-224-7415

### **CHEMTREC EMERGENCY Phone:**

U.S. and Canada Only:	+ 1-800-424-9300
Outside U.S. and Canada:	+ 1-703-527-3887

## **SECTION 2: HAZARD(S) IDENTIFICATION**

### **Classification of the substance or mixture**

Classification according to the OSHA Hazard Communication Standard (29 CFR 1910.1200)

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification:	Flammable Liquid - Category 1 Skin Corrosion/Irritation - Category 2 Aspiration - Category 1 Reproductive Toxicity - Category 2 Germ Cell Mutagenicity - Category 1B Carcinogenicity - Category 1B STOT-SE - Category 3
Signal word:	DANGER

## **SECTION 2: HAZARD(S) IDENTIFICATION**

Hazard statement: Extremely flammable liquid and vapor  
Causes skin irritation  
Suspected of damaging fertility or the unborn child  
May cause cancer  
Suspected of causing genetic defects  
May cause drowsiness or dizziness.  
May be fatal if swallowed and enters airways



Symbols:

### **Precautionary Statements**

Prevention: 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, and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

Wear protective gloves, protective clothing, eye protection, face protection. Wash thoroughly after handling

Avoid breathing gas/mist/vapors/spray.

Use only outdoors or in a well-ventilated area.

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

Response: IF ON SKIN: Take off immediately all contaminated clothing and wash it before reuse. Wash with plenty of water. If skin irritation occurs: Get medical advice/attention.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a poison center or doctor if you feel unwell.

If exposed or concerned: Get medical advice/attention.

IF SWALLOWED: Immediately call poison center or doctor. Do NOT induce vomiting.

In case of fire: Use dry chemical, foam, and carbon dioxide to extinguish. Specific treatment (see product label).

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

Disposal: Dispose of contents/container in accordance with local, regional, national, international regulations.

Hazards Not Otherwise Classified: None

<b>Medical Conditions Aggravated by Overexposure</b>	None identified.
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### **SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

#### *Hazardous Substance(s) or Complex Substance(s) Required for Disclosure*

<b>Component Name(s)</b>	<b>CAS Registry No.</b>	<b>Concentration (%)</b>
Gasoline, Straight Run *	68606-11-1	100

\* A complex combination of hydrocarbons produced from the topping plant by the distillation of crude oil. It boils in the range of approximately 36°C to 193°C (97°F to 380°F).

#### *Hazardous Constituent(s) Contained in Complex Substance(s) required for disclosure*

<b>Component Name(s)</b>	<b>CAS Registry No.</b>	<b>Concentration (%)</b>
Octanes	Mixture	1-15
Heptanes	Mixture	0-12
Xylenes, mixed isomers	1330-20-7	1-7
Hexane isomers, mixed (other than n-Hexane)	Mixture	0-7
Pentanes	109-66-0 and 78-78-4	0-5
Hexane, normal (n-Hexane)	110-54-3	0-2
Benzene	71-43-2	0-1
Toluene	108-88-3	0-1
Hydrogen Sulfide	7783-06-4	Not available

### **SECTION 4: FIRST-AID MEASURES**

**Take proper precautions to ensure your own health and safety before attempting rescue or providing first aid. For more specific information, refer to Exposure Controls and Personal Protection in Section 8 of this SDS.**

<b>Inhalation</b>	Remove person to fresh air and keep comfortable for breathing. If victim is not breathing, immediately begin rescue breathing. If breathing is difficult, 100 percent humidified oxygen should be administered by a qualified individual. Seek medical attention immediately. Do not attempt to rescue the victim unless proper respiratory protection is worn.
<b>Eye Contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting upper and lower eyelids. Remove contact lenses if worn. Seek medical attention if excessive tearing, irritation, or pain persists.
<b>Skin Contact</b>	Remove contaminated clothing. Wash exposed skin with soap and water. Launder clothing before use. Seek medical attention if tissue appears damaged or if irritation persists.
<b>Ingestion</b>	Immediately call poison center or doctor. Do NOT induce vomiting. If spontaneous vomiting is about to occur, place victim's head below knees. Aspiration into the lungs can cause severe chemical pneumonitis or pulmonary edema/hemorrhage, which can be fatal. Never give anything by mouth to a person who is not fully conscious. Seek medical attention immediately.

## **SECTION 4: FIRST-AID MEASURES**

<p><b>Most Important Symptoms and Effects Both Acute and Delayed</b></p>	<p><u>Acute</u> Inhalation may cause confusion, cough, dizziness, drowsiness, lethargy, headache, labored breathing, shortness of breath, nausea, vomiting, sore throat, weakness, convulsions and unconsciousness. Dermal exposure may cause dry skin, redness and pain. This material contains benzene and n-hexane, which can be absorbed through the skin. May cause redness and pain in the eyes. Hydrogen sulfide causes severe deep burns to the eyes. Ingestion may cause abdominal cramps, burning sensation, sore throat, nausea and vomiting. Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.</p> <p>Exposure to the component hydrogen sulfide causes respiratory irritation. At low concentrations, hydrogen sulfide has an odor of rotten eggs. At high concentrations, hydrogen sulfide odor is not apparent. At concentrations above 500 ppm, hydrogen sulfide causes death by respiratory paralysis. NIOSH has determined that atmospheres containing 100 ppm or more of hydrogen sulfide are immediately dangerous to life and health. Symptoms of hydrogen sulfide exposure may be delayed. The symptoms of lung edema often do not become manifest until a few hours have passed and they are aggravated by physical effort.</p> <p><u>Chronic</u> Liquid defats the skin, which may cause dryness and cracking. Repeated or prolonged contact with skin may cause dermatitis. Toluene and xylene may have effects on the central nervous system. Exposure may increase noise-induced hearing loss. Animal tests show that toluene and xylene may cause toxicity to human reproduction or development. Benzene substance may have effects on the bone marrow and immune system. This may result in a decrease of blood cells. Benzene is carcinogenic to humans. Hexane may have effects on the central nervous system and peripheral nervous system. This may result in polyneuropathy. Animal tests show that hexane possibly causes toxic effects upon human reproduction. Heptane may have effects on the liver, which may result in impaired functions.</p>
<p><b>Indication of Any Immediate Medical Attention and Special Treatment Needed</b></p>	<p>IF SWALLOWED: Immediately call poison center or doctor. Do NOT induce vomiting.</p>
<p><b>Notes to Physician</b></p>	<p><u>Inhalation</u> Toxic effects are produced by vapor inhalation. Monitor for respiratory distress. If cough or difficulty in breathing develops, evaluate for respiratory tract irritation, bronchitis, or pneumonitis. Administer 100 percent humidified supplemental oxygen with assisted ventilation as required. Obtain chest x-ray and liver function tests. Monitor arterial blood gases with severe exposure. Monitor cardiac function. Exposure to high concentrations of this material may be associated with cardiac arrhythmia. Epinephrine and other sympathomimetic drugs may initiate cardiac arrhythmias in persons exposed to this material. The use of other drugs with less arrhythmogenic potential should be considered. If sympathomimetic drugs are administered, observe for the development of cardiac arrhythmia.</p> <p><u>Ingestion</u> This material presents a high aspiration hazard. Aspiration may produce chemical pneumonitis. Treatment may involve careful gastric lavage if performed soon after ingestion, or in patients who are comatose or at risk of convulsing. Protect airway by placement in Trendelenburg and left lateral decubitus position or by cuffed endotracheal intubation.</p>
<p><b>Emergency Procedures</b></p>	<p>Because hydrogen sulfide inhalation can be fatal, rescuers must wear positive pressure full face piece, and/or self-contained or supplied air NIOSH approved respirators before attempting the rescue.</p>

## **SECTION 5: FIRE-FIGHTING MEASURES**

<b>Clear fire area of all non-emergency personnel</b>	
<b>Flammability</b>	Extremely flammable liquid and vapor.
<b>Extinguishing Media</b>	Use dry chemical, foam, and carbon dioxide. Water may be ineffective as an extinguishing media but may be used to cool containers exposed to fire.
<b>Specific Hazards Arising from the Chemical</b>	Material is highly volatile and emits vapors which are heavier than air. Vapors may travel along the ground and be ignited by remote ignition sources. Use water spray to disperse vapors. This material may evolve H <sub>2</sub> S. At elevated concentrations, H <sub>2</sub> S acts as a systemic poison and caused unconsciousness and death by respiratory paralysis. CO <sub>2</sub> , CO, fumes, smoke, and trace oxides of nitrogen and sulfur may be formed in a fire.
<b>Special Protective Equipment for Fire Fighters</b>	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Use full protective equipment and self-contained breathing apparatus (SCBA) for fires in enclosed areas. Decontaminate emergency personnel and equipment with soap and water. Avoid inhalation of fumes.

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

<b>Take proper precautions to ensure your own health and safety before attempting spill control or clean-up. For more specific information, refer to Exposure Controls and Personal Protection in Section 8 and Disposal Considerations in Section 13 of this SDS.</b>	
<b>Personal Precautions</b>	Do not touch or walk through spilled material. Stay upwind and away from spill. Do not enter or stay in area unless monitoring indicates that it is safe to do so. Isolate hazard area and restrict entry to emergency crew. See Section 7 for handling measures, Section 8 for personal protective equipment and Section 13 for disposal considerations.
<b>Environmental</b>	This product is toxic to aquatic life with long lasting effects. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
<b>Clean Up Methods</b>	For small liquid spills, absorb released material with non-combustible absorbent. Place into containers for later disposal. (See Waste Disposal section below)  For large spills, evacuate area in the event of significant spills. Adequately ventilate area and determine potential exposure conditions. Contain spill in temporary dikes to avoid product migration and to assist in recovery.
<b>Additional Advice</b>	Control ignition sources around spill area. Use of a fire fighting foam blanket on spilled material will reduce vapor release and fire potential. OSHA HAZWOPER regulations may require establishing a regulated area with site control. Report spills as required to appropriate federal, state and local authorities.  Protective Measures During Repair and Maintenance of Contaminated Equipment: <ul style="list-style-type: none"><li>• Refer to Special Protection Information.</li><li>• Drain and purge equipment as necessary to remove material residues.</li><li>• Use nitrile gloves and protective clothing if direct contact is anticipated.</li><li>• Provide ventilation to maintain exposures below applicable workplace exposure limits.</li><li>• Eliminate heat and ignition sources.</li><li>• Remove contaminated clothing.</li><li>• Wash exposure skin thoroughly with soap and water.</li><li>• Keep unnecessary persons from hazard area.</li></ul>

## **SECTION 7: HANDLING AND STORAGE**

<b>Handling</b>	Flammable Liquid. Vapors are heavier than air and may travel some distance to an ignition source and flash back. 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, and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves, protective clothing, eye protection, face protection. Wash thoroughly after handling Avoid breathing gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Never siphon by mouth. Empty containers may contain product residues which can ignite with explosive force. Consult appropriate federal, state and local authorities before reusing, reconditioning, reclaiming, recycling or disposing of empty containers and/or waste residues of this product.
<b>Storage</b>	Do not use or store this product near heat, flame or other potential ignition sources. Do not store with oxidizers. Do not store this product in unlabeled containers. Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.

## **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**


<b>Engineering Controls</b>	Use process enclosures, local exhaust ventilation, or other controls to maintain airborne levels below recommended exposure limits (see below). Ensure that an emergency eye wash station and a safety shower are located near the work-station. In confined space, mechanical ventilation may be required to keep levels of certain components below applicable workplace exposure levels as evaluated by designated and properly trained personnel.
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### **Occupational Exposure Guidelines**

<b>Substance</b>	<b>Applicable Workplace Exposure Levels</b>
<b>Octanes</b>	
OSHA PEL	500 ppm TWA; 2350 mg/m <sup>3</sup> TWA
ACGIH TLV	300 ppm TWA; 1400 mg/m <sup>3</sup> TWA; 375 ppm STEL; 1750 mg/m <sup>3</sup> STEL
NIOSH REL	75 ppm TWA; 350 mg/m <sup>3</sup> TWA; 385 ppm Ceiling; 1800 mg/m <sup>3</sup> Ceiling; 1000 ppm IDLH (10% of LEL)
<b>Heptanes</b>	
OSHA PEL	500 ppm TWA; 2000 mg/m <sup>3</sup> TWA
ACGIH TLV	400 ppm TWA; 1640 mg/m <sup>3</sup> TWA; 500 ppm STEL; 2050 mg/m <sup>3</sup> STEL
NIOSH REL	85 ppm TWA; 350 mg/m <sup>3</sup> TWA; 440 ppm Ceiling; 1800 mg/m <sup>3</sup> Ceiling; 750 ppm IDLH
<b>Xylenes, mixed isomers</b>	
OSHA PEL	100 ppm TWA; 435 mg/m <sup>3</sup> TWA
ACGIH TLV	100 ppm TWA; 150 ppm STEL
NIOSH REL	None established
<b>Pentanes</b>	
OSHA PEL	1000 ppm TWA; 2950 mg/m <sup>3</sup> TWA; 750 ppm STEL; 2250 mg/m <sup>3</sup> STEL
ACGIH TLV	1000 ppm TWA (listed under Pentane, all isomers)
NIOSH REL	120 ppm TWA; 350 mg/m <sup>3</sup> TWA; 610 ppm Ceiling (15 min); 1800 mg/m <sup>3</sup> Ceiling (15 min); 1500 ppm IDLH (10% LEL)
<b>Hexane, normal (n-Hexane)</b>	
OSHA PEL	500 ppm TWA; 1800 mg/m <sup>3</sup> TWA
ACGIH TLV	50 ppm TWA
NIOSH REL	50 ppm TWA; 180 mg/m <sup>3</sup> TWA; 1100 ppm IDLH (10% LEL)

## **SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

<b>Substance</b>	<b>Applicable Workplace Exposure Levels</b>
Benzene	
OSHA PEL	10 ppm TWA (applies to industry segments exempt from the benzene standard at 29 CFR 1910.1028); 1 ppm TWA; 5 ppm STEL (see 29 CFR 1910.1028); 25 ppm Ceiling; 50 ppm Peak (10 minutes)
ACGIH TLV	0.5 ppm TWA; 2.5 ppm STEL
NIOSH REL	0.1 ppm TWA; 1 ppm STEL; 500 ppm IDLH
Toluene	
OSHA PEL	200 ppm TWA; 300 ppm Ceiling; 500 ppm Peak (10 minutes)
ACGIH TLV	20 ppm TWA
NIOSH REL	100 ppm TWA; 375 mg/m <sup>3</sup> TWA; 150 ppm STEL; 560 mg/m <sup>3</sup> STEL; 500 ppm IDLH
Hydrogen sulfide	
OSHA PEL	10 ppm TWA; 14 mg/m <sup>3</sup> TWA; 15 ppm STEL; 21 mg/m <sup>3</sup> STEL; 20 ppm Ceiling; 50 ppm Peak (10 minutes once, only if no other measurable exposure occurs)
ACGIH TLV	1 ppm TWA; 5 ppm STEL
NIOSH REL	10 ppm Ceiling (10 min); 15 mg/m <sup>3</sup> Ceiling (10 min); 100 ppm IDLH

<b>Exposure Controls</b>	Personal protective equipment should be selected based upon the conditions under which this material is used. A hazard assessment of the work area for PPE requirements should be conducted by a qualified professional pursuant to OSHA regulations.
<b>Appropriate Measures</b>	Use adequate explosion-proof ventilation to control airborne concentrations below the exposure guidelines/limits. Local exhaust ventilation is recommended.
<b>Respiratory Protection</b>	Only NIOSH or MSHA approved equipment should be used. Respiratory protection is required if airborne concentration of any components are above the applicable workplace exposure levels listed above. If H <sub>2</sub> S concentrations are anticipated above applicable workplace exposure levels, use only supplied air respiratory protection. When considering benzene concentrations, selection and use of respiratory equipment must be in accordance with OSHA Benzene Standard 29 CFR 1910.1028.
<b>Eye Protection</b>	Use chemical splash goggles to prevent contact with the eyes.
<b>Skin Protection</b>	Full body impervious clothing should be worn when handling material. Use gloves constructed of impervious materials such as neoprene or heavy nitrile rubber when direct contact is anticipated.
<b>Monitoring Methods</b>	Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate. Examples of sources of recommended air monitoring methods are given below or contact supplier. Further national methods may be available. National Institute of Occupational Safety and Health (NIOSH), USA: Manual of Analytical Methods, <a href="http://www.cdc.gov/niosh/nmam/nmammenu.html">http://www.cdc.gov/niosh/nmam/nmammenu.html</a> . Occupational Safety and Health Administration (OSHA), USA: Sampling and Analytical Methods, <a href="http://www.osha-slc.gov/dts/sltc/methods/toc.html">http://www.osha-slc.gov/dts/sltc/methods/toc.html</a> .
<b>Personal Protection in Case of a Large Spill</b>	
	
	If garments become soaked with hydrocarbon liquids, they must be immediately changed. Shower with soap and water to remove hydrocarbon residues from the skin. Wash exposed skin with soap and water to remove residues. Material is potential carcinogen.

## **SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical State</b>	Liquid	<b>Specific Gravity</b>	0.78 (H <sub>2</sub> O = 1)
<b>Appearance</b>	Clear to straw color	<b>Density, kg/L @15°C</b>	Not available
<b>Odor</b>	Gasoline-type odor. The material may smell like rotten eggs when H <sub>2</sub> S is present in low concentrations	<b>Water Solubility</b>	Not soluble
<b>Odor Threshold</b>	Not available	<b>pH</b>	Not available
<b>Melting Point/Freezing Point</b>	Not available	<b>Flammability</b>	Extremely flammable
<b>Vapor Pressure</b>	Not available	<b>Flammability limit-lower%</b>	1.0*
<b>Vapor Density (Air = 1)</b>	3-4	<b>Flammability limit-upper%</b>	7.6*
<b>Boiling Point (760 mmHg)</b>	38°C (100°F) - 196°C (384°F)	<b>Evaporation Rate</b>	Not applicable
<b>Flash Point, CC</b>	<-18°C (<0°F)*	<b>Percent Volatile</b>	100%
<b>Auto-ignition temperature</b>	280°C (536°F)*	<b>Decomposition Temperature</b>	Not available
<b>Viscosity (poise @ 25°C)</b>	Not available	<b>Partition Coefficient</b>	Not available

\* Estimate based on component data.

## **SECTION 10: STABILITY AND REACTIVITY**

<b>Reactivity</b>	None known.
<b>Stability</b>	This material is stable under normal conditions.
<b>Possibility of Hazardous Reactions</b>	Hazardous polymerization is not expected to occur.
<b>Conditions to Avoid</b>	Avoid heat, sparks, open flames and excessive heat.
<b>Materials to Avoid</b>	Oxidizing agents.
<b>Hazardous Decomposition Products</b>	CO <sub>2</sub> , CO, fumes, smoke, and trace oxides of nitrogen and sulfur.

## **SECTION 11: TOXICOLOGICAL INFORMATION**

### **General information on likely routes of exposure:**

This product may be encountered via dermal contact, eye contact, inhalation, and ingestion.

**Straight Run Gasoline is a member of the Low Boiling Point Naphthas (Gasoline) category. Toxicological data are representative of the Low Boiling Point Naphthas (Gasoline) category of chemicals and is considered representative of Straight Run Gasoline.**



## **SECTION 11: TOXICOLOGICAL INFORMATION**

### **Acute Toxicity:**

<b>Product/Ingredient name</b>	<b>Result</b>	<b>Species</b>	<b>Dose</b>	<b>Exposure</b>
Gasoline, Straight Run (Low Boiling Point Naphthas (Gasoline))	LD <sub>50</sub> LD <sub>50</sub> LC <sub>50</sub>	Rat Rabbit Rat	> 5000 mg/kg bw > 2000 mg/kg bw > 5.2 mg/L	Oral Dermal Inhalation
Heptane	4 h LC <sub>50</sub>	Rat	>29.29 mg/L	Inhalation
Xylene	LD <sub>50</sub> LD <sub>50</sub> LD <sub>50</sub> 4 h LC <sub>50</sub>	Rat (male) Rat (female) Rabbit Rat	3523 mg/kg > 4000 mg/kg > 4200 mg/kg 6700 ppm	Oral Oral Dermal Inhalation
Pentane	LD <sub>50</sub> LD <sub>50</sub> 4 h LC <sub>50</sub>	Rat Rabbit Rat	>2000 mg/kg 3000 mg/kg 18 mg/L	Oral Dermal Inhalation
n-Hexane	LD <sub>50</sub> 4 h LC <sub>50</sub>	Rat Mouse	≥ 15,840 mg/kg 48000 ppm	Oral Inhalation
Benzene	LD <sub>50</sub> LD <sub>50</sub> 4h LC <sub>50</sub>	Rat Rabbit Rat	> 5000 mg/ > 8260 mg/kg bw 43.7 mg/L	Oral Dermal Inhalation
Toluene	LD <sub>50</sub> LD <sub>50</sub> 4h LC <sub>50</sub>	Rat Rabbit Rat	> 5000 mg/kg > 5000 mg/kg 28.1 mg/L	Oral Dermal Inhalation
Hydrogen Sulfide	4 h LC <sub>50</sub>	Rat	444 ppm	Inhalation

<b>Skin Corrosion/Irritation</b>	Gasoline and other naphtha substances caused slight to moderate/severe dermal irritation, normally persisting for up to 14 days in rabbit skin irritation studies. There was no evidence of skin corrosion. Heavier, aromatic materials caused more irritation than lighter, paraffinic streams. Xylene, n-hexane, benzene and toluene were found to be irritating to the skin of test animals. n-Pentane produced limited and transient dermal irritation when tested in rabbits.
<b>Serious Eye Damage/Irritation</b>	The effects of gasoline and other naphtha substances on the eye have been investigated in rabbits using a number of samples. None of the samples tested showed more than minimal redness and swelling, which resolved quickly. Xylene, n-hexane, benzene, toluene and hydrogen sulfide were reported to cause irritation to the eyes of test animals. n-Pentane was minimally irritating to the eyes of rabbits.
<b>Respiratory or Skin Sensitization</b>	Gasoline and other naphtha substances showed no evidence of skin sensitization in the guinea pig. There are no reports available to indicate a potential to cause respiratory sensitization. Xylene, n-pentane, benzene and toluene did not induce skin sensitization in laboratory animals.

## **SECTION 11: TOXICOLOGICAL INFORMATION**

<p><b>Mutagenicity</b></p>	<p>The mutagenic potential of gasoline and other naphtha substances has been extensively studied in a range of <i>in vivo</i> and <i>in vitro</i> assays. The majority of the studies showed no evidence of mutagenic activity. However, gasoline and other naphtha substances can contain benzene, a constituent that is classified as a germ cell mutagen. Xylene, n-pentane, n-hexane, toluene and hydrogen sulfide were negative for mutagenicity when tested <i>in vitro</i> with and without metabolic activation and <i>in vivo</i>. Benzene was positive when tested <i>in vitro</i> (cell transformation, gene mutation, aneuploidy and chromosome aberration test) and <i>in vivo</i> (chromosome aberration micronucleus assay, chromosome aberration bone marrow, mammalian germ cell cytogenetic, and gene mutation). Some negative results were reported <i>in vitro</i> with and without metabolic activation (Ames test, chromosome aberration, sister chromatid exchanges, and unscheduled DNA synthesis).</p>
<p><b>Carcinogenicity</b></p>	<p>Results of 2 year skin painting studies with gasoline and other naphtha substances have shown either no, or weak potential (low incidence and long latent period) for the development of skin tumors. Additional work has shown that where tumors arise they are most likely a result of a non-genotoxic response due to dermal irritation. However, gasoline and other naphtha substances can contain benzene, a constituent that is classified as a human carcinogen. Xylene and toluene showed no treatment-related carcinogenicity following oral exposure to test animals. Benzene showed evidence of carcinogenicity following oral exposure to rats.</p> <p>This product contains benzene, which is listed as a Group 1 (Carcinogenic to Humans) carcinogen by IARC, A1 – Confirmed Human Carcinogen by ACGIH, a Known Human Carcinogen by NTP and a carcinogen by OSHA.</p> <p>This product contains toluene and xylene, which are listed as Group 3 (Not Classifiable) carcinogens by IARC and A4 – Not Classifiable as Human Carcinogens by ACGIH.</p>
<p><b>Reproductive Toxicity</b></p>	<p>Results of OECD developmental toxicity screening studies with naphtha substances showed no evidence of developmental toxicity in rats. However, gasoline and other naphtha substances can contain toluene and/or n-hexane, constituents that are classified as reproductive toxicants. No evidence of reproductive toxicity was reported in test animals exposed to xylene, n-pentane, benzene and hydrogen sulfide. n-Pentane is not a developmental toxicant. Toluene and n-hexane showed evidence of developmental and/or reproductive toxicity in rats exposed via inhalation.</p>
<p><b>STOT – Single Exposure</b></p>	<p>Acute exposure studies show no evidence of systemic toxicity, other than a potential to cause narcosis / CNS depression at higher exposure concentrations. Xylene showed evidence of muscular incoordination, and/or slowed breathing following oral exposure and atelectasis, haemorrhage, and interlobular oedema of the lungs following inhalation in test animals. Inhalation of n-hexane may cause drowsiness or dizziness and respiratory tract irritation. Benzene and toluene showed evidence of CNS effects following exposure via inhalation. High concentrations of hydrogen sulfide may cause central nervous system depression resulting in headaches, dizziness and nausea; continued inhalation may result in unconsciousness and/or death.</p>

## SECTION 11: TOXICOLOGICAL INFORMATION

<b>STOT – Repeated Exposure</b>	The repeat dose toxicity of gasoline and other naphtha substances has been studied in rats following dermal and inhalation exposure for periods between 10 days and up to 2 years. In dermal studies, no systemic toxicity has been seen; the only effect observed was moderate to severe dermal irritation. Repeated inhalation exposure causes 'light hydrocarbon nephropathy' in male rats, an effect which is considered to be both sex and species specific. Repeated or prolonged exposure to xylene may cause damage to the kidney. Dermal and inhalation overexposure to n-hexane can cause peripheral nervous system damage and central nervous system depression. Benzene showed evidence of haematopietic system effects in rats and mice following exposure via inhalation. Toluene and n-heptane showed evidence of CNS effects following exposure via inhalation. n-Heptane also induced a loss of auditory sensitivity when tested in animals. No evidence of systemic target organ toxicity was reported for n-pentane and hydrogen sulfide.
<b>Aspiration Hazard</b>	Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.

## SECTION 12: ECOLOGICAL INFORMATION

**Straight Run Gasoline is a member of the Low Boiling Point Naphthas (Gasoline) category. Toxicological data are representative of the Low Boiling Point Naphthas (Gasoline) category of chemicals and is considered representative of Straight Run Gasoline.**

### Aquatic Toxicity

Product/Ingredient name	Result	Species	Dose	Exposure
Gasoline, Straight Run (Low Boiling Point Naphthas (Gasoline))	Acute aquatic toxicity studies with fish, invertebrates and algae on samples of Gasoline and other Naphtha substances show acute toxicity values in the range 1-10 mg/l.			
Octanes	LC <sub>50</sub> (calculated)	Fish	0.14 mg/L	96 h
	EC <sub>50</sub>	<i>Daphnia magna</i>	0.3 mg/L	48 h
	LC <sub>50</sub>	<i>Mysidopsis bahia</i>	0.1 mg/L	96 h
	EC <sub>50</sub> (calculated)	Green Alga	0.24 mg/L	96 h
Heptanes	LC <sub>50</sub> (calculated)	Fish	0.49 mg/L	96 h
	EC <sub>50</sub>	<i>Daphnia magna</i>	1.5 mg/L	48 h
	LC <sub>50</sub>	<i>Mysidopsis bahia</i>	0.1 mg/L	96 h
	EC <sub>50</sub> (calculated)	Green Alga	0.56 mg/L	96 h
Xylene	NOEC	<i>Oncorhynchus mykiss</i>	> 1.3 mg/L	56 d
Pentanes	LC <sub>50</sub>	<i>Oncorhynchus mykiss</i>	4.26 mg/L	96 h
	EC <sub>50</sub>	<i>Daphnia magna</i>	2.7 mg/L	48 h
	E <sub>b</sub> C <sub>50</sub>	<i>Selenastrum capricornutum</i>	10.70 mg/L	72 h
	E <sub>R</sub> C <sub>50</sub>	<i>Selenastrum capricornutum</i>	7.51 mg/L	72 h
n-Hexane	LC <sub>50</sub>	<i>Daphnia magna</i>	3.88 mg/L	48 h
Benzene	LC <sub>50</sub>	<i>Oncorhynchus mykiss</i>	5.3 mg/L	96 h
	EC <sub>50</sub>	<i>Daphnia magna</i>	10 mg/L	48 h
	LOEC	<i>Pimephales promelas</i>	1.6 mg/L	32 d
	LOEC	<i>Ceriodaphnia dubia</i>	8.9 mg/L	7 d
	EC <sub>50</sub>	<i>Pseudokirchnerella subcapitata</i>	32 mg/L	72 h

## SECTION 12: ECOLOGICAL INFORMATION

Product/Ingredient name	Result	Species	Dose	Exposure
Toluene	LC <sub>50</sub>	<i>Oncorhynchus kisutch</i>	5.5 mg/L	96 h
	LC <sub>50</sub>	<i>Ceriodaphnia dubia</i>	3.78 mg/L	48 h
	EC <sub>50</sub>	<i>Chlorella vulgaris</i>	207 mg/L	3 h
	LOEC	<i>Oncorhynchus kisutch</i>	2.77 mg/L	40 d
	LOEC	<i>Ceriodaphnia dubia</i>	2.76 mg/L	7 d
Hydrogen sulfide	TL <sub>50</sub>	<i>Carassius auratus</i>	44 µg/L	96 h
	EC <sub>50</sub>	<i>Daphnia sp.</i>	0.12 mg/L	48 h
	EC <sub>50</sub>	<i>Scenedesmus sp.</i>	1.87 mg/L	24 h

<b>Mobility</b>	No data were identified.
<b>Persistent and Degradability</b>	Naphtha substances are hydrocarbon UVCBs. Standard tests for biodegradation / bioaccumulation are intended for single substances and are not appropriate for complex substances. Octanes, heptanes, pentanes, n-hexane and toluene are readily biodegradable.
<b>Bioaccumulative Potential</b>	Naphtha substances are hydrocarbon UVCBs. Standard tests for biodegradation / bioaccumulation are intended for single substances and are not appropriate for complex substances. n-Octane (BCF = 198.7) and n-Heptane (BCF = 553; log Kow = 4.66) in the aquatic environment are estimated to have a moderate potential to bioaccumulate. Pentane (BCF = 81.3; log Pow = 3.39) and n-Hexane (log kow = 3.9) have low bioaccumulative potential.

## SECTION 13: DISPOSAL CONSIDERATIONS

<b>Waste Disposal</b>	The generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers. It is the responsibility of the user to determine if the material is a hazardous waste at the time of disposal. Recovered non-usable material may be regulated by US EPA as a hazardous waste due to its ignitibility characteristics (D001) and/or its benzene content (D018). Transportation, treatment, storage and disposal of waste material must be conducted in accordance with RCRA regulations (see 40 CFR 260 through 40 CFR 271). State and/or local regulation may be more restrictive. Contact the RCRA/Superfund Hotline at (800)424-9346 or your regional US EPA office for guidance concerning case specific disposal issues.
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## SECTION 14: TRANSPORT INFORMATION

<b>The shipping description below may not represent requirements for all modes of transportation, shipping methods or locations outside of the United States.</b>
<b>US Department of Transportation Information</b> UN Number: UN 1268 Proper Shipping Name: Petroleum Distillates, NOS Class/Division: 3 Packing Group: II Environmental Hazards: Not listed as a DOT marine pollutant per 49 CFR; Classified as an IMDG marine pollutant based on hazard classification. Transport in Bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Not relevant for ground transportation. Special Precautions: None identified

## **SECTION 15: REGULATORY INFORMATION**

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

The SDS has been prepared to meet the US OSHA Hazard Communication Standard 2012 (29 CFR 1910.1200).

### **USA Federal Regulations**

29 CFR 1910.1200 Hazard Communication Standard (HCS): Hazardous  
TSCA – U.S. Inventory (TSCA 8b) Compliant

### **Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA)**

#### **Section 313- Toxic Chemicals:**

The product is believed to contain the following components in concentrations above *de minimis* levels that are listed as toxic chemicals in 40 CFR Part 372 pursuant to the requirements of Section 313 of SARA:

<b>Components</b>	<b>CAS Nos.</b>	<b>Concentration %</b>
Xylenes (isomers and mixtures)	1330-20-7	1-7
Hexane	110-54-3	0-2
Benzene	71-43-2	0-1
Toluene	108-88-3	0-1
Hydrogen sulfide	7783-06-4	Not detected

#### **Section 311/312 – Hazard Categories:**

This product meets the criteria of one or more of the Hazard Categories as defined by 40 CFR Part 370 as established by Sections 311 and 312 of SARA:

Acute (Immediate Health Hazard)	<u>Yes</u>	Sudden Release of Pressure Hazard	<u>No</u>
Chronic (Delayed Health Hazard)	<u>Yes</u>	Reactive Hazard	<u>No</u>
Fire Hazard	<u>Yes</u>		

#### **Section 302- Extremely Hazardous Substances:**

This product may contain the following chemical components in concentrations greater than one percent that are listed as Extremely Hazardous Substances in 40 CFR Part 355 as established by Section 302 of SARA

<b>Components</b>	<b>CAS Nos.</b>	<b>Concentration %</b>	<b>RQ (lb)</b>	<b>TPQ (lb)</b>
Hydrogen sulfide	7783-06-4	Not detected	100	500

#### **Clean Water Act (CWA):**

Pursuant to Section 311(b) (4) of the CWA, discharge of crude oil and petroleum products in any kind to surface waters must be immediately reported to the National Response Center: (800) 424-8802.

## **SECTION 15: REGULATORY INFORMATION**

### **Comprehensive Environmental Response, Compensation, & Liability Act (CERCLA) – Hazardous Substances:**

The following chemical components are identified as Hazardous Substances in 40 CFR Part 302 as require by Section 102(a) of CERCLA. As defined in CERCLA, the term “Hazardous Substance” does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance.

<b>Components</b>	<b>CAS Nos.</b>	<b>Concentration %</b>	<b>RQ (lb)</b>
Xylenes (isomers and mixtures)	1330-20-7	1-7	100
Hexane	110-54-3	0-2	5000
Benzene	71-43-2	0-1	10
Toluene	108-88-3	0-1	1000
Hydrogen sulfide	7783-06-4	Not detected	100

<b>Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List</b>	
Xylenes (isomers and mixtures)	Listed
Hexane	Listed
Benzene	Listed
Toluene	Listed
<b>US States Right to Know</b>	
Octane	Massachusetts, New Jersey, Pennsylvania
Heptane	Massachusetts, New Jersey, Pennsylvania
Xylene	Massachusetts, New Jersey, Pennsylvania
Pentane, Isopentane	Massachusetts, New Jersey, Pennsylvania
Hexane	Massachusetts, New Jersey, Pennsylvania
Benzene	Massachusetts, New Jersey, Pennsylvania
Toluene	Massachusetts, New Jersey, Pennsylvania
Hydrogen sulfide	Massachusetts, New Jersey, Pennsylvania
<b>California Proposition 65</b>	
Benzene	
Toluene	

**SECTION 16: OTHER INFORMATION**

<p><b>Label Requirements</b></p>	<div data-bbox="407 258 675 348" data-label="Image"> </div> <p>DANGER</p> <p>Extremely flammable liquid and vapor          Causes skin irritation          Suspected of damaging fertility or the unborn child          May cause cancer          Suspected of causing genetic defects          May cause drowsiness or dizziness.          May be fatal if swallowed and enters airways</p> <p>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, and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves, protective clothing, eye protection, face protection. Wash thoroughly after handling. Avoid breathing gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.</p> <p>IF ON SKIN: Take off immediately all contaminated clothing and wash it before reuse. Wash with plenty of water. If skin irritation occurs: Get medical advice/attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a poison center or doctor if you feel unwell. If exposed or concerned: Get medical advice/attention. IF SWALLOWED: Immediately call poison center or doctor. Do NOT induce vomiting. In case of fire: Use dry chemical, foam, and carbon dioxide to extinguish. Specific treatment (see product label).</p> <p>Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.</p> <p>Dispose of contents/container in accordance with local, regional, national, international regulations.</p> <table border="0" data-bbox="407 1291 1531 1386"> <tr> <td>Hazardous Material Information System</td> <td>Health hazard: 2*</td> </tr> <tr> <td></td> <td>Flammability: 3</td> </tr> <tr> <td></td> <td>Physical hazards: 0</td> </tr> </table> <p>Customer is responsible for determining the PPE for this material.</p> <table border="0" data-bbox="407 1539 1531 1633"> <tr> <td>National Fire Protection Association (USA)</td> <td>Health hazard: 2</td> </tr> <tr> <td></td> <td>Fire: 3</td> </tr> <tr> <td></td> <td>Reactivity: 0</td> </tr> </table> <p>Customer is responsible for determining the PPE for this material.</p>	Hazardous Material Information System	Health hazard: 2*		Flammability: 3		Physical hazards: 0	National Fire Protection Association (USA)	Health hazard: 2		Fire: 3		Reactivity: 0
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## **SECTION 16: OTHER INFORMATION**

### **ABBREVIATIONS**

<b>ACGIH:</b> American Conference of Governmental Industrial Hygienists
<b>CNS:</b> Central Nervous System
<b>EC<sub>50</sub>:</b> Effect Concentration, 50%
<b>E<sub>b</sub>C<sub>50</sub>:</b> Effect Concentration, 50% (biomass)
<b>E<sub>r</sub>C<sub>50</sub>:</b> Effect Concentration, 50% (growth rate)
<b>IARC:</b> International Agency for Research on Cancer
<b>IDLH:</b> Immediately Dangerous to Life and Health
<b>LC<sub>50</sub>:</b> Lethal Concentration, 50%
<b>LD<sub>50</sub>:</b> Lethal Dose, 50%
<b>NIOSH:</b> National Institute of Occupational Safety and Health
<b>NTP:</b> National Toxicology Program
<b>OEL:</b> Occupational Exposure Limits
<b>OSHA:</b> Occupational Safety and Health Administration
<b>PEL:</b> Permissible Exposure Limits
<b>REL:</b> Recommended Exposure Limits
<b>STEL:</b> Short-Term Exposure Limits
<b>TLV:</b> Threshold Limit Value
<b>TWA:</b> Time Weight Average

### **DISCLAIMER OF LIABILITY**

#### **Straight Run Gasoline**

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