

Safety Data Sheet

**Section 1: Identification of the substance or mixture and of the supplier**

Product Name: Kerosene

SDS Number: 682950

Synonyms/Other Means of Identification: 1K Kerosene  
Dyed Kerosene  
K1 Kerosene; K1 Kerosene LS; K1 Super Kerosene LS  
K2 Kerosene  
Kerosine  
Ultra Low Sulfur Kerosene  
Straight Run Kerosene  
Kero 153  
Kero LS 04  
Kero LS 047  
Kero ULS 001

MARPOL Annex I Category: Kerosenes

Intended Use: Fuel

Manufacturer: ConocoPhillips  
600 N. Dairy Ashford  
Houston, Texas 77079-1175

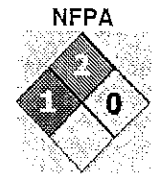
Emergency Health and Safety Number: Chemtrec: 800-424-9300 (24 Hours)

SDS Information: Phone: 800-762-0942  
Email: MSDS@conocophillips.com  
www.conocophillips.com

**Section 2: Hazard(s) Identification**

**DANGER**

Flammable liquid and vapor. (H226)\*  
Causes skin irritation. (H315)\*  
May be fatal if swallowed and enters airways. (H304)\*  
May cause drowsiness or dizziness. (H336)\*  
Toxic to aquatic life with long lasting effects. (H411)\*



**Precautionary Statement(s):**

Keep out of reach of children. (P102)\*  
Keep away from heat/sparks/open flames/hot surfaces. - No smoking. (P210)\*  
Wear protective gloves / protective clothing / eye protection / face protection. (P280)\*  
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. (P301+P310)\*  
Do NOT induce vomiting. (P331)\*  
Dispose of contents/container to approved disposal facility. (P501)\*

\* (Applicable GHS hazard/precautionary code.)

**Section 3: Composition / Information on Ingredients**

| Component                              | CASRN      | Concentration |
|--|------------|---------------|
| Hydrodesulfurized Kerosene ..C9-16     | 64742-81-0 | 0-100         |
| Hydrotreated Distillate, Light ..C9-16 | 64742-47-8 | 0-100         |

### Section 3: Composition / Information on Ingredients

|                  |           |       |
|------------------|-----------|-------|
| Kerosene ..C9-16 | 8008-20-6 | 0-100 |
| Naphthalene      | 91-20-3   | <3    |

Total Sulfur: > 0.5 wt%

<sup>1</sup> All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

### Section 4: First Aid Measures

**Eye Contact:** If irritation or redness develops from exposure, flush eyes with clean water. If symptoms persist, seek medical attention.

**Skin Contact:** Remove contaminated shoes and clothing, and flush affected area(s) with large amounts of water. If skin surface is damaged, apply a clean dressing and seek medical attention. If skin surface is not damaged, cleanse affected area(s) thoroughly by washing with mild soap and water or a waterless hand cleaner. If irritation or redness develops, seek medical attention. Wash contaminated clothing before reuse.

**Inhalation (Breathing):** If respiratory symptoms develop, move victim away from source of exposure and into fresh air in a position comfortable for breathing. If breathing is difficult, oxygen or artificial respiration should be administered by qualified personnel. If symptoms persist, seek medical attention.

**Ingestion (Swallowing):** Aspiration hazard: Do not induce vomiting or give anything by mouth because this material can enter the lungs and cause severe lung damage. If victim is drowsy or unconscious and vomiting, place on the left side with the head down. If possible, do not leave victim unattended and observe closely for adequacy of breathing. Seek medical attention.

**Medical Conditions Aggravated by Exposure:** Conditions which may be aggravated by exposure include skin disorders.

### Section 5: Fire-Fighting Measures

#### NFPA 704 Hazard Class

Health: 1    Flammability: 2    Instability: 0            (0-Minimal, 1-Slight, 2-Moderate, 3-Serious, 4-Severe)

**Unusual Fire & Explosion Hazards:** Flammable. This material can be ignited by heat, sparks, flames, or other sources of ignition (e.g., static electricity, pilot lights, mechanical/electrical equipment, and electronic devices such as cell phones, computers, calculators, and pagers which have not been certified as intrinsically safe). Vapors may travel considerable distances to a source of ignition where they can ignite, flash back, or explode. May create vapor/air explosion hazard indoors, in confined spaces, outdoors, or in sewers. This product will float and can be reignited on surface water. Vapors are heavier than air and can accumulate in low areas. If container is not properly cooled, it can rupture in the heat of a fire.

**Extinguishing Media:** Dry chemical, carbon dioxide, or foam is recommended. Water spray is recommended to cool or protect exposed materials or structures. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces. Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam. Water may be ineffective for extinguishment, unless used under favorable conditions by experienced fire fighters.

**Fire Fighting Instructions:** For fires beyond the initial stage, emergency responders in the immediate hazard area should wear protective clothing. When the potential chemical hazard is unknown, in enclosed or confined spaces, a self contained breathing apparatus should be worn. In addition, wear other appropriate protective equipment as conditions warrant.(see Section 8).

Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done safely. Move undamaged containers from immediate hazard area if it can be done safely. Water spray may be useful in minimizing or dispersing vapors and to protect personnel. Cool equipment exposed to fire with water, if it can be done safely. Avoid spreading burning liquid with water used for cooling purposes.

**Hazardous Combustion Products:** Combustion may yield smoke, carbon monoxide, and other products of incomplete combustion. Oxides of nitrogen and sulfur may also be formed.

See Section 9 for Flammable Properties including Flash Point and Flammable (Explosive) Limits

### Section 6: Accidental Release Measures

**Section 6: Accidental Release Measures**

**Personal Precautions:** Flammable. Spillages of liquid product will create a fire hazard and may form an explosive atmosphere. Keep all sources of ignition and hot metal surfaces away from spill/release if safe to do so. The use of explosion-proof electrical equipment is recommended. Stay upwind and away from spill/release. Avoid direct contact with material. For large spillages, notify persons down wind of the spill/release, isolate immediate hazard area and keep unauthorized personnel out. Wear appropriate protective equipment, including respiratory protection, as conditions warrant (see Section 8). See Sections 2 and 7 for additional information on hazards and precautionary measures.

**Environmental Precautions:** Stop spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems, and natural waterways. Use foam on spills to minimize vapors. Use water sparingly to minimize environmental contamination and reduce disposal requirements. If spill occurs on water notify appropriate authorities and advise shipping of any hazard. Spills into or upon navigable waters, the contiguous zone, or adjoining shorelines that cause a sheen or discoloration on the surface of the water, may require notification of the National Response Center (phone number 800-424-8802).

**Methods for Containment and Clean-Up:** Notify relevant authorities in accordance with all applicable regulations. Immediate cleanup of any spill is recommended. Dike far ahead of spill for later recovery or disposal. Absorb spill with inert material such as sand or vermiculite, and place in suitable container for disposal. If spilled on water remove with appropriate methods (e.g. skimming, booms or absorbents). In case of soil contamination, remove contaminated soil for remediation or disposal, in accordance with local regulations.

Recommended measures are based on the most likely spillage scenarios for this material; however local conditions and regulations may influence or limit the choice of appropriate actions to be taken.

**Section 7: Handling and Storage**

**Precautions for safe handling:** Keep away from ignition sources such as heat/sparks/open flame – No smoking. Take precautionary measures against static discharge. Nonsparking tools should be used. Wear protective gloves/clothing and eye/face protection. Wash thoroughly after handling. Use good personal hygiene practices and wear appropriate personal protective equipment.

Flammable. May vaporize easily at ambient temperatures. The vapor is heavier than air and may create an explosive mixture of vapor and air. Beware of accumulation in confined spaces and low lying areas. Open container slowly to relieve any pressure. Electrostatic charge may accumulate and create a hazardous condition when handling or processing this material. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. The use of explosion-proof electrical equipment is recommended and may be required (see appropriate fire codes). Refer to NFPA-70 and/or API RP 2003 for specific bonding/grounding requirements. Do not enter confined spaces such as tanks or pits without following proper entry procedures such as ASTM D-4276 and 29CFR 1910.146. Do not wear contaminated clothing or shoes. Keep contaminated clothing away from sources of ignition such as sparks or open flames.

The use of hydrocarbon fuel in an area without adequate ventilation may result in hazardous levels of incomplete combustion products (e.g. carbon monoxide, oxides of sulfur and nitrogen, benzene and other hydrocarbons) and/or dangerously low oxygen levels.

**Conditions for safe storage:** Keep container(s) tightly closed and properly labeled. Use and store this material in cool, dry, well-ventilated areas away from heat, direct sunlight, hot metal surfaces, and all sources of ignition. Store only in approved containers. Post area "No Smoking or Open Flame." Keep away from any incompatible material (see Section 10). Protect container(s) against physical damage. Outdoor or detached storage is preferred. Indoor storage should meet OSHA standards and appropriate fire codes.

"Empty" containers retain residue and may be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition. They may explode and cause injury or death. "Empty" drums should be completely drained, properly bunged, and promptly shipped to the supplier or a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations. Before working on or in tanks which contain or have contained this material, refer to OSHA regulations, ANSI Z49.1, and other references pertaining to cleaning, repairing, welding, or other contemplated operations.

**Section 8: Exposure Controls / Personal Protection**

| Component                                 | ACGIH  | OSHA | Other |
|---|--|------|-------|
| Hydrodesulfurized Kerosene<br>..C9-16     | TWA: 200 mg/m <sup>3</sup><br>Skin                                   | ---  | ---   |
| Hydrotreated Distillate, Light<br>..C9-16 | TWA: 200 mg/m <sup>3</sup><br>Skin<br>based on Kerosene<br>8008-20-6 | ---  | ---   |
| Kerosene ..C9-16                          | TWA: 200 mg/m <sup>3</sup><br>Skin                                   | ---  | ---   |

| Section 8: Exposure Controls / Personal Protection |                                     |  |  |
|--|-------------------------------------|--|--|
| Naphthalene  | STEL: 15 ppm<br>TWA: 10 ppm<br>Skin | TWA: 10 ppm<br>TWA: 50 mg/m <sup>3</sup> | TWA: 0.2 mg/m <sup>3</sup> (as total of 17 PNA's measured by NIOSH Method 5506)<br>(ConocoPhillips Guidelines) |

**Note:** State, local or other agencies or advisory groups may have established more stringent limits. Consult an industrial hygienist or similar professional, or your local agencies, for further information.

**Engineering controls:** If current ventilation practices are not adequate to maintain airborne concentrations below the established exposure limits, additional engineering controls may be required.

**Eye/Face Protection:** The use of eye protection that meets or exceeds ANSI Z.87.1 is recommended to protect against potential eye contact, irritation, or injury. Depending on conditions of use, a face shield may be necessary.

**Skin/Hand Protection:** The use of gloves impervious to the specific material handled is advised to prevent skin contact. Users should check with manufacturers to confirm the breakthrough performance of their products. Depending on exposure and use conditions, additional protection may be necessary to prevent skin contact including use of items such as chemical resistant boots, aprons, arm covers, hoods, coveralls, or encapsulated suits. Suggested protective materials: Nitrile

**Respiratory Protection:** Where there is potential for airborne exposure above the exposure limit a NIOSH certified air purifying respirator equipped with organic vapor cartridges/canisters may be used.

A respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 and ANSI Z88.2 should be followed whenever workplace conditions warrant a respirator's use. Air purifying respirators provide limited protection and cannot be used in atmospheres that exceed the maximum use concentration (as directed by regulation or the manufacturer's instructions), in oxygen deficient (less than 19.5 percent oxygen) situations, or under conditions that are immediately dangerous to life and health (IDLH).

**Other Protective Equipment:** Eye wash and quick-drench shower facilities should be available in the work area. Thoroughly clean shoes and wash contaminated clothing before reuse.

Suggestions provided in this section for exposure control and specific types of protective equipment are based on readily available information. Users should consult with the specific manufacturer to confirm the performance of their protective equipment. Specific situations may require consultation with industrial hygiene, safety, or engineering professionals.

### Section 9: Physical and Chemical Properties

**Note:** Unless otherwise stated, values are determined at 20°C (68°F) and 760 mm Hg (1 atm). Data represent typical values and are not intended to be specifications.

|   |  |
|---|--|
| <b>Appearance:</b>                                    | Clear, light yellow or light green (may be dyed red) |
| <b>Physical Form:</b>                                 | Liquid   |
| <b>Odor:</b>  | Kerosene   |
| <b>Odor Threshold:</b>                                | No data  |
| <b>pH:</b>  | Not applicable                                       |
| <b>Vapor Pressure:</b>                                | 0.40 mm Hg   |
| <b>Vapor Density (air=1):</b>                         | > 4.5  |
| <b>Initial Boiling Point/Range:</b>                   | 300-572°F / 149-300°C                                |
| <b>Melting/Freezing Point:</b>                        | <-40°F / <-40°C                                      |
| <b>Solubility in Water:</b>                           | <0.1%  |
| <b>Partition Coefficient (n-octanol/water) (Kow):</b> | No data  |
| <b>Specific Gravity (water=1):</b>                    | 0.775-0.840 @ 68°F / 20°C                            |
| <b>Bulk Density:</b>                                  | 6.73 lbs/gal   |
| <b>Viscosity:</b>                                     | 1-2.4 cSt @ 40°C                                     |
| <b>VOC Content(%):</b>                                | 0.16 lb/1000 gal                                     |
| <b>Percent Volatile:</b>                              | 98-100% @ 545°F (285°C)                              |
| <b>Evaporation Rate (nBuAc=1):</b>                    | <1   |
| <b>Flash Point:</b>                                   | 100 -150°F / 38 - 66°C                               |
| <b>Test Method:</b>                                   | Tag Closed Cup (TCC), ASTM D56                       |
| <b>Lower Explosive Limits (vol % in air):</b>         | 0.7  |
| <b>Upper Explosive Limits (vol % in air):</b>         | 7.0  |
| <b>Auto-ignition Temperature:</b>                     | 410°F / 210°C  |

### Section 10: Stability and Reactivity

**Section 10: Stability and Reactivity**

**Stability:** Stable under normal ambient and anticipated conditions of use.

**Conditions to Avoid:** Avoid high temperatures and all sources of ignition. Prevent vapor accumulation.

**Materials to Avoid (Incompatible Materials):** Avoid contact with strong oxidizing agents and strong reducing agents.

**Hazardous Decomposition Products:** Not anticipated under normal conditions of use.

**Hazardous Polymerization:** Not known to occur.

**Section 11: Toxicological Information**

**Information on Toxicological Effects of Substance/Mixture**

| Acute Toxicity         | Hazard                 | Additional Information | LC50/LD50 Data   |
|------------------------|------------------------|------------------------|------------------|
| Inhalation             | Unlikely to be harmful |                        | >5.2 mg/L (mist) |
| Skin Absorption        | Unlikely to be harmful |                        | > 2 g/kg         |
| Ingestion (Swallowing) | Unlikely to be harmful |                        | > 5 g/kg         |

**Aspiration Hazard:** May be fatal if swallowed and enters airways.

**Skin Corrosion/Irritation:** Causes skin irritation. Repeated exposure may cause skin dryness or cracking.

**Serious Eye Damage/Irritation:** Causes mild eye irritation.

**Signs and Symptoms:** While significant vapor concentrations are not likely, high concentrations can cause minor respiratory irritation, headache, drowsiness, dizziness, loss of coordination, disorientation and fatigue. Ingestion can cause irritation of the digestive tract, nausea, diarrhea, and vomiting.

**Skin Sensitization:** Not expected to be a skin sensitizer.

**Respiratory Sensitization:** Not expected to be a respiratory sensitizer.

**Specific Target Organ Toxicity (Single Exposure):** May cause drowsiness and dizziness.

**Specific Target Organ Toxicity (Repeated Exposure):** Not expected to cause organ effects from repeated exposure.

**Carcinogenicity:** Not expected to cause cancer. Petroleum middle distillates have been shown to cause skin tumors in mice following repeated and prolonged skin contact. Follow-up studies have shown that these tumors are produced through a non-genotoxic mechanism associated with frequent cell damage and repair, and that they are not likely to cause tumors in the absence of prolonged skin irritation. Middle distillates with low polynuclear aromatic hydrocarbon content have not been identified as a carcinogen by IARC.

**Germ Cell Mutagenicity:** Not expected to cause heritable genetic effects.

**Reproductive Toxicity:** Not expected to cause reproductive toxicity.

**Information on Toxicological Effects of Components**

**Naphthalene**

**Carcinogenicity:** Naphthalene has been evaluated in two year inhalation studies in both rats and mice. The US National Toxicology Program (NTP) concluded that there is clear evidence of carcinogenicity in male and female rats based on increased incidences of respiratory epithelial adenomas and olfactory epithelial neuroblastomas of the nose. NTP found some evidence of carcinogenicity in female mice (alveolar adenomas) and no evidence of carcinogenicity in male mice. Naphthalene has been identified as a carcinogen by IARC and NTP.

**Section 12: Ecological Information**

**Toxicity:** Acute aquatic toxicity studies on samples of jet fuel and kerosene streams show acute toxicity values greater than 1 mg/L and mostly in the range 1-100 mg/L. These tests were carried out on water accommodated fractions, in closed systems to prevent evaporative loss. Results are consistent with the predicted aquatic toxicity of these substances based on their hydrocarbon composition. Kerosenes should be regarded as toxic to aquatic organisms, with the potential to cause long term adverse effects in the aquatic environment. Classification: H411; Chronic Cat 2.

**Persistence and Degradability:** The hydrocarbons in this material are not readily biodegradable but are regarded as inherently biodegradable since their hydrocarbon components can be degraded by microorganisms.

**Persistence per IOPC Fund definition:** Non-Persistent

**Bioaccumulative Potential:** Hydrocarbon constituents of kerosene show measured or predicted Log Kow values ranging from 3 to 6 and above and therefore would be regarded as having the potential to bioaccumulate. In practice, metabolic processes may reduce bioconcentration.

**Mobility In Soil:** On release to water, hydrocarbons will float on the surface and since they are sparingly soluble, the only significant loss is volatilization to air. It is possible that some of the higher molecular weight hydrocarbons will be adsorbed on sediment. Biodegradation in water is a minor loss process. In air, these hydrocarbons are photodegraded by reaction with hydroxyl radicals with half lives varying from 0.1 to 0.7 days.

**Other Adverse Effects:** None anticipated.

### Section 13: Disposal Considerations

The generator of a waste is always responsible for making proper hazardous waste determinations and needs to consider state and local requirements in addition to federal regulations.

This material, if discarded as produced, would not be a federally regulated RCRA "listed" hazardous waste. However, it would likely be identified as a federally regulated RCRA hazardous waste for the following characteristic(s) shown below. See Sections 7 and 8 for information on handling, storage and personal protection and Section 9 for physical/chemical properties. It is possible that the material as produced contains constituents which are not required to be listed in the MSDS but could affect the hazardous waste determination. Additionally, use which results in chemical or physical change of this material could subject it to regulation as a hazardous waste.

Container contents should be completely used and containers should be emptied prior to discard. Container residues and rinseates could be considered to be hazardous wastes.

**EPA Waste Number(s)**

- D001 - Ignitability characteristic

### Section 14: Transport Information

**U.S. Department of Transportation (DOT)**

**Shipping Description:** *Aquatic toxicity studies indicate material may be classified as a Marine Pollutant. This classification impacts bulk and water shipments.*  
UN1223, Kerosene, Combustible liquid or 3, III

**Non-Bulk Package Marking:** None or Kerosene, UN1223

**Non-Bulk Package Labeling:** None or Flammable liquid

**Bulk Package/Placard Marking:** Combustible or Flammable / 1223

**Packaging - References:** None; None; 49 CFR 173.241 or 49 CFR 173.150; 173.203; 173.241  
*(Exceptions; Non-bulk; Bulk)*

**Hazardous Substance:** See Section 15 for RQ's

**Emergency Response Guide:** 128

**Note:** *This product may be classified as a Combustible Liquid for domestic land transportation under 49 CFR 173.150(f). Combustible liquids are not regulated by DOT in non-bulk quantities shipped by land. If this material is determined to be a Marine Pollutant, it CANNOT be reclassified as a Combustible Liquid. Container(s) greater than 5 liters (liquids) or 5 kilograms (solids), shipped by water mode and ALL bulk shipments may require the shipping description to contain the "Marine Pollutant" notation [49 CFR 172.203(l)] and the container(s) to display the [Marine Pollutant Mark] [49 CFR 172.322].*

*The following alternate shipping description order may be used until January 1, 2013: Proper Shipping name, Hazard Class or Division, (Subsidiary Hazard if any), UN or NA number, Packing Group  
Other shipping description elements may be required for DOT compliance.*

**International Maritime Dangerous Goods (IMDG)**

**Shipping Description:** *Not regulated if flashpoint is >60° C closed-cup*  
UN1223, Kerosene, 3, III, (FP° C cc), [where FP is the material's flash point in degrees Celsius closed cup]

**Section 14: Transport Information**

Non-Bulk Package Marking: Kerosene, UN1223  
 Labels: Flammable liquid  
 Placards/Marking (Bulk): Flammable / 1223  
 Packaging - Non-Bulk: P001, LP01  
 EMS: F-E, S-E  
 Note: *U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23 & 25. If container(s) is greater than 5 liters (liquids) or 5 kilograms (solids), shipment may require the shipping description to contain the "Marine Pollutant" description [IMDG 5.4.1.4.3.5] and the container(s) to display the Marine Pollutant mark [IMDG 5.2.1.6]. If transported in bulk by marine vessel in international waters, product is being carried under the scope of MARPOL Annex I.*

International Civil Aviation Org. / International Air Transport Assoc. (ICAO/IATA)

UN/ID #: *Not regulated if flashpoint is >60° C closed-cup*  
 UN1223  
 Proper Shipping Name: Kerosene  
 Hazard Class/Division: 3  
 Subsidiary risk: None  
 Packing Group: III  
 Non-Bulk Package Marking: Kerosene, UN1223  
 Labels: Flammable liquid  
 ERG Code: 3L  
 Note: *U.S. DOT compliance requirements may apply. See 49 CFR 171.22, 23 & 24. If container(s) is greater than 5 liters (liquids) or 5 kilograms (solids), shipment may require the container to display the "Environmentally hazardous substance" mark [IATA 7.1.6.3].*

|   | LTD. QTY | Passenger Aircraft | Cargo Aircraft Only |
|---|----------|--------------------|---------------------|
| Packaging Instruction #:                  | Y309     | 309                | 310                 |
| Max. Net Qty. Per Package:                | 10 L     | 60 L               | 220 L               |
| Packaging Instruction # after 12/31/2010: | Y344     | 355                | 366                 |

**Section 15: Regulatory Information**

CERCLA/SARA - Section 302 Extremely Hazardous Substances and TPQs (in pounds):  
 This material does not contain any chemicals subject to the reporting requirements of SARA 302 and 40 CFR 372.

CERCLA/SARA - Section 311/312 (Title III Hazard Categories)

|                  |     |
|------------------|-----|
| Acute Health:    | Yes |
| Chronic Health:  | Yes |
| Fire Hazard:     | Yes |
| Pressure Hazard: | No  |
| Reactive Hazard: | No  |

CERCLA/SARA - Section 313 and 40 CFR 372:  
 This material contains the following chemicals subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR 372:

| Component   | Concentration <sup>1</sup> | de minimis |
|-------------|----------------------------|------------|
| Naphthalene | <3                         | 0.1%       |

EPA (CERCLA) Reportable Quantity (in pounds):  
 EPA's Petroleum Exclusion applies to this material - (CERCLA 101(14)).

California Proposition 65:  
 Warning: This material may contain detectable quantities of the following chemicals, known to the State of California to cause cancer, birth defects or other reproductive harm, and which may be subject to the requirements of California Proposition 65 (CA Health & Safety Code Section 25249.5):

| Component   | Type of Toxicity |
|-------------|------------------|
| Naphthalene | Cancer           |

| Component | Type of Toxicity   |
|-----------|--|
| Toluene   | Developmental Toxicant   |
| Benzene   | Cancer<br>Developmental Toxicant<br>Male Reproductive Toxicant |

**International Hazard Classification**

**GHS Classification:**

- H226 -- Flammable liquids -- Category 3
- H315 -- Skin corrosion/irritation -- Category 2
- H304 -- Aspiration Hazard -- Category 1
- H336 -- Specific target organ toxicity (single exposure) -- Category 3
- H411 -- Hazardous to the aquatic environment, chronic toxicity -- Category 2

**Canada:**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the Regulations.

**WHMIS Hazard Class**

B3 - Combustible Liquids  
D2B

**National Chemical Inventories:**

All components are either listed on the US TSCA Inventory, or are not regulated under TSCA.

All components are either on the DSL, or are exempt from DSL listing requirements.

**U.S. Export Control Classification Number:** EAR99

**Section 16: Other Information**

**Date of Issue:** 21-Dec-2010  
**Status:** FINAL  
**Previous Issue Date:** 20-Jul-2010  
**Revised Sections or Basis for Revision:** Format change  
MARPOL information (Sections 1, 3 and 12)  
**SDS Number:** 682950

**Guide to Abbreviations:**

ACGIH = American Conference of Governmental Industrial Hygienists; CASRN = Chemical Abstracts Service Registry Number; CEILING = Ceiling Limit (15 minutes); CERCLA = The Comprehensive Environmental Response, Compensation, and Liability Act; EPA = Environmental Protection Agency; GHS = Globally Harmonized System; IARC = International Agency for Research on Cancer; IOPC = International Oil Pollution Compensation; LEL = Lower Explosive Limit; NE = Not Established; NFPA = National Fire Protection Association; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration; PEL = Permissible Exposure Limit (OSHA); SARA = Superfund Amendments and Reauthorization Act; STEL = Short Term Exposure Limit (15 minutes); TLV = Threshold Limit Value (ACGIH); TWA = Time Weighted Average (8 hours); UEL = Upper Explosive Limit; WHMIS = Worker Hazardous Materials Information System (Canada)

**Disclaimer of Expressed and implied Warranties:**

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