Aviation Gasoline, 100 LL

Material Safety Data Sheet

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Aviation Gasoline, 100 LL
MSDS Code: 001769
Synonyms: 100 Low Lead Gasoline
100 Octane Aviation
ASTM 100/130 Aviation Gasoline
Avgas
Avgas 100
Intended Use: Fuel
Responsible Party: ConocoPhillips
600 N. Dairy Ashford
Houston, Texas 77079-1175
Customer Service: 800-640-1956
Technical Information: 800-255-9556
MSDS Information: Phone: 800-762-0942
Email: MSDS@conocophillips.com
Internet: http://w3.conocophillips.com/NetMSDS/
Emergency Telephone Numbers: Chemtrec: 800-424-9300 (24 Hours)
California Poison Control System: 800-356-3219

2. HAZARDS IDENTIFICATION

Appearance: Blue
Physical Form: Liquid
Odor: Gasoline-like

Potential Health Effects
Eye: Contact may cause mild eye irritation including stinging, watering, and redness.
Skin: Skin irritant. Contact may cause redness, itching, a burning sensation, and skin damage. Prolonged or repeated contact can defat the skin, causing drying and cracking of the skin, and possibly dermatitis (inflammation). Not acutely toxic by skin absorption, but prolonged or repeated skin contact may be harmful (see Section 11).
Inhalation (Breathing): Low to moderate degree of toxicity by inhalation.
Ingestion (Swallowing): Low degree of toxicity by ingestion. ASPIRATION HAZARD - This material can enter lungs during swallowing or vomiting and cause lung inflammation and damage.
Signs and Symptoms: Effects of overexposure may include nausea, vomiting, flushing, blurred vision, tremors, signs of nervous system depression (e.g., headache, drowsiness, dizziness, loss of coordination, disorientation and fatigue), unconsciousness, convulsions, death.

Emergency Overview
DANGER!
Extremely Flammable Liquid and Vapor
Skin Irritant
Aspiration Hazard

Date of Issue: 23-May-2007
Status: Final
**3. COMPOSITION / INFORMATION ON INGREDIENTS**

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
<th>Concentration (wt %)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gasoline</td>
<td>NONE</td>
<td>&gt;99.8</td>
</tr>
<tr>
<td>Benzene</td>
<td>71-43-2</td>
<td>&lt;0.5</td>
</tr>
<tr>
<td>Tetraethyl Lead</td>
<td>78-00-2</td>
<td>&lt;0.13</td>
</tr>
</tbody>
</table>

**4. FIRST AID MEASURES**

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

**Skin:** 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. Remove contaminated shoes and clothing and cleanse affected area(s) thoroughly by washing with mild soap and water or a waterless hand cleaner. If irritation or redness develops and persists, seek medical attention.

**Inhalation (Breathing):** If respiratory symptoms or other symptoms of exposure develop, move victim away from source of exposure and into fresh air. If symptoms persist, seek immediate medical attention. If victim is not breathing, clear airway and immediately begin artificial respiration. If breathing difficulties develop, oxygen should be administered by qualified personnel. Seek immediate 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. If victim is not breathing, clear airway and immediately begin artificial respiration. If breathing difficulties develop, oxygen should be administered by qualified personnel. Seek immediate medical attention.

**Notes to Physician:** Epinephrine and other sympathomimetic drugs may initiate cardiac arrhythmias in persons exposed to high concentrations of hydrocarbon solvents (e.g., in enclosed spaces or with deliberate abuse). The use of other drugs with less arrhythmogenic potential should be considered. If sympathomimetic drugs are administered, observe for the development of cardiac arrhythmias.

Federal regulations (29 CFR 1910.1028) specify medical surveillance programs for certain exposures to benzene above the action level or PEL (specified in Section (i)(1)(i) of the Standard). In addition, employees exposed in an emergency situation shall, as described in Section (i)(4)(i), provide a urine sample at the end of the shift for measurement of urine phenol.

**5. FIRE-FIGHTING MEASURES**

**NFPA 704 Hazard Class**

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

**Unusual Fire & Explosion Hazards:** This material is extremely flammable and 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. 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. Water may be ineffective for extinguishment, unless used under favorable conditions by experienced fire fighters.
Fire Fighting Instructions: For fires beyond the incipient stage, emergency responders in the immediate hazard area should wear bunker gear. When the potential chemical hazard is unknown, in enclosed or confined spaces, or when explicitly required by DOT, 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, keep unauthorized personnel out. Stop spill/release if it can be done with minimal risk. Move undamaged containers from immediate hazard area if it can be done with minimal risk.

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 with minimal risk. Avoid spreading burning liquid with water used for cooling purposes.

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

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Extremely flammable. Keep all sources of ignition and hot metal surfaces away from spill/release. The use of explosion-proof electrical equipment is recommended.

Spill precautions: Stay upwind and away from spill/release. Notify persons down wind of the spill/release, isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done with minimal risk. Wear appropriate protective equipment, including respiratory protection, as conditions warrant (see Section 8).

Environmental precautions: Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems, and natural waterways. Dike far ahead of spill for later recovery or disposal. Use foam on spills to minimize vapors (see Section 5). Spilled material may be absorbed into an appropriate absorbent material.

Methods for cleaning up: Notify fire authorities and appropriate federal, state, and local agencies. Immediate cleanup of any spill is recommended.

7. HANDLING AND STORAGE

Handling: Open container slowly to relieve any pressure. Bond and ground all equipment when transferring from one vessel to another. Can accumulate static charge by flow or agitation. Can be ignited by static discharge. The use of explosion-proof electrical equipment is recommended and may be required (see appropriate fire codes). Refer to NFPA-704 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. The use of appropriate respiratory protection is advised when concentrations exceed any established exposure limits (see Section 8).

Wash thoroughly after handling. Do not wear contaminated clothing or shoes. Keep contaminated clothing away from sources of ignition such as sparks or open flames. Use good personal hygiene practices.

"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.

Storage: Keep container(s) tightly closed. Use and store this material in cool, dry, well-ventilated areas away from heat, direct sunlight, hot metal surfaces, and all sources of ignition. Post area "No Smoking or Open Flame." Store only in approved containers.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION
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<table>
<thead>
<tr>
<th>Component</th>
<th>ACGIH</th>
<th>OSHA</th>
<th>Other:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gasoline</td>
<td>300 ppm TWA</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td>890 mg/m³ TWA</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>500 ppm STEL</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1480 mg/m³ STEL</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Benzene</td>
<td>TWA: 0.5 ppm</td>
<td>Ceiling: 25 ppm</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td>STEL: 2.5 ppm</td>
<td>STEL: 5 ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Skin</td>
<td>TWA: 1 ppm</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA: 10 ppm</td>
<td></td>
</tr>
<tr>
<td>Tetraethyl Lead</td>
<td>TWA: 0.1 mg/m³</td>
<td>Skin</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA: 0.075 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

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.

Contains benzene. If exposure concentrations exceed the 0.5 ppm action level, OSHA requirements for personal protective equipment, exposure monitoring, and training may apply (29CFR1910.1028). Also see Section 4.

**Engineering controls:** If current ventilation practices are not adequate to maintain airborne concentrations below the established exposure limits additional engineering controls may be required. Where explosive mixtures may be present, electrical systems safe for such locations must be used (see appropriate electrical codes).

**Personal Protective Equipment (PPE):**

**Eye/Face:** Approved eye protection to safeguard against potential eye contact, irritation, or injury is recommended. Depending on conditions of use, a face shield may be necessary.

**Skin:** The use of nitrile gloves impervious to the specific material handled with Silver Shield/4H® laminate or equivalent as an under glove due to the tetraethyl lead containing gasoline is advised to prevent skin contact, possible irritation, and skin damage (see glove manufacturer literature for information on permeability). Depending on conditions of use, nitrile apron and/or arm covers may be necessary.

**Respiratory:** A NIOSH certified air purifying respirator with an organic vapor cartridge may be used under conditions where airborne concentrations are expected to exceed exposure limits.

Protection provided by air purifying respirators is limited (see manufacturer's respirator selection guide). Use a NIOSH approved self-contained breathing apparatus (SCBA) or equivalent operated in a pressure demand or other positive pressure mode if there is potential for an oxygen-deficient atmosphere, uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

A respiratory protection program that meets OSHA’s 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator’s use.

If benzene values equal or exceed applicable exposure limits the use of respiratory protection should comply with the requirements in OSHA 29 CFR 1910.1028-Benzene.

**Other Protective Equipment:** A source of clean water should be available in the work area for flushing eyes and skin. Impervious clothing should be worn as needed.

Suggestions for the use of specific protective materials are based on readily available published data. Users should check with specific manufacturers to confirm the performance of their products.

### 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.

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Blue</td>
</tr>
<tr>
<td>Physical Form</td>
<td>Liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Gasoline-like</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No data</td>
</tr>
<tr>
<td>pH</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>
### 10. STABILITY AND REACTIVITY

**Stability:** Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure. Extremely flammable liquid and vapor. Vapor can cause flash fire.

**Conditions to Avoid:** Avoid all possible sources of ignition (see Sections 5 and 7).

**Materials to Avoid (Incompatible Materials):** Strong oxidizing agents such as acids, chlorine, dichromates, or permanganates can cause fire or explosion.

**Hazardous Decomposition Products:** Combustion can yield lead fumes, carbon, nitrogen and sulfur oxides.

**Hazardous Polymerization:** Will not occur.

### 11. TOXICOLOGICAL INFORMATION

**Chronic Data:**

**Gasoline**

- **Carcinogenicity:** Two year inhalation studies of wholly vaporized unleaded gasoline produced increased incidences of kidney tumors in male rats and liver tumors in female mice. Follow-up studies suggest that occurrence of the kidney tumors may be linked to alpha-2-u-globulin nephropathy, and most likely unique to the male rat. Epidemiology data collected from a study of more than 18,000 petroleum marketing and distribution workers showed no increased risk of leukemia, multiple myeloma, or kidney cancer from gasoline exposure. Unleaded gasoline has been identified as a possible carcinogen by IARC. Because solvent extracts of gasoline exhaust particulates caused skin cancer in laboratory animals, IARC has categorized gasoline engine exhaust as a possible human cancer hazard.

- **Target Organs:** A two year inhalation study of wholly vaporized unleaded gasoline produced nephropathy in male rats, characterized by the accumulation of alpha-2-u-globulin in epithelial cells of the proximal tubules, and necrosis and hyperplasia of surrounding cells. Follow-up studies suggest that these changes are unique to the male rat.

- **Reproductive:** No evidence of developmental toxicity was found in pregnant laboratory animals (rats and mice) exposed to up to 9,000 ppm vapor of unleaded gasoline via inhalation.

**Xylenes**

- **Target Organs:** Rats exposed to 800, 1000 or 1200 ppm 14 hours daily for 6 weeks demonstrated high frequency hearing loss. Another study in rats exposed to 1800 ppm 8 hours daily for 5 days demonstrated middle frequency hearing loss.

- **Reproductive:** Both mixed xylenes and the individual isomers produced limited evidence of developmental toxicity in laboratory animals. Inhalation and oral administration of xylene resulted in decreased fetal weight, increased incidences of delayed ossification, skeletal variations and resorptions.

**Toluene**

- **Target Organs:** Epidemiology studies suggest that chronic occupational overexposure to toluene may damage color vision. Subchronic and chronic inhalation studies with toluene produced kidney and liver damage, hearing loss and central nervous system (brain) damage in laboratory animals. Intentional misuse by deliberate inhalation of high concentrations of toluene has been shown to cause liver, kidney, and central nervous system damage, including hearing loss and visual disturbances.

- **Reproductive:** Exposure to toluene during pregnancy has demonstrated limited evidence of developmental toxicity in laboratory animals. The effects seen include decreased fetal body weight and increased skeletal variations in both inhalation and oral studies.

**Ethyl Benzene**
**Acute Data:**

<table>
<thead>
<tr>
<th>Component</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gasoline</td>
<td>18.75 ml/kg, (Rat)</td>
<td>&gt;5 ml/kg (Rabbit)</td>
<td>300g/m^3/5M (rat, mouse, g.pig)</td>
</tr>
<tr>
<td>Benzene</td>
<td>930 mg/kg (Rat)</td>
<td>&gt; 9400 mg/kg (Rabbit)</td>
<td>10000 ppm/7hr. (Rat)</td>
</tr>
</tbody>
</table>

**12. ECOLOGICAL INFORMATION**

The individual hydrocarbon components of this material are differentially soluble in water with aromatic hydrocarbons tending to be more water soluble than aliphatic hydrocarbons. If spilled, the more volatile components will evaporate rapidly. Factors such as local environmental conditions (temperature, wind, soil type, mixing or wave action in water, etc), photo-oxidation, biodegradation and adsorption onto suspended sediments, contribute to the weathering of spilled material. Because of their differential solubility, the occurrence of hydrocarbons in groundwater will be at different proportions than the parent material.

The potential for bioaccumulation and/or long term persistence of these materials in the environment is low to non-existent. In laboratory soil column experiments, the half-time of unleaded gasoline was reported as 1.2 to 2.7 days in sand, loam or clay soils. Microorganisms present in sediments and in the water are capable of degrading gasoline and naphtha containing hydrocarbons. Simpler hydrocarbons are more readily degraded than complex molecules. Adaptation of bacteria in gasoline-contaminated groundwater to the soluble constituents has been reported.

In general, naphtha streams exhibit some short-term toxicity to freshwater and marine organisms, especially under closed vessel or flow-through exposure conditions in the laboratory. The components most likely causing toxicity are also highly volatile and can be readily biodegraded by microorganisms.

**13. DISPOSAL CONSIDERATIONS**
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
- D018 - Toxicity characteristic (Benzene)
- D008 - Toxicity characteristic (Lead)

14. TRANSPORTATION INFORMATION

U.S. Department of Transportation (DOT)
Shipping Description: Gasoline, 3, UN1203, II
Non-Bulk Package Marking: Gasoline, UN1203
Non-Bulk Package Labeling: Flammable liquid
Bulk Package/Placard Marking: Flammable/1203
Packaging - References: 49 CFR 173.150; 173.202; 173.242
Emergency Response Guide: 128

International Maritime Dangerous Goods (IMDG)
Shipping Description: UN1203, Gasoline, 3, II , (-37° C cc)
Non-Bulk Package Marking: Gasoline, UN 1203
Labels: Flammable liquid
Placards/Marking (Bulk): Flammable/1203
Packaging - Non-Bulk: P001
EMS: F-E, S-E

International Civil Aviation Org. / International Air Transport Assoc. (ICAO/IATA)
UN/ID #: UN1203
Proper Shipping Name: Gasoline
Hazard Class/Division: 3
Packing Group: II
Non-Bulk Package Marking: Gasoline, UN1203
Labels: Flammable liquid
ERG Code: 3H

<table>
<thead>
<tr>
<th>LTD. QTY</th>
<th>Passenger Aircraft</th>
<th>Cargo Aircraft Only</th>
</tr>
</thead>
<tbody>
<tr>
<td>Packaging Instruction #:</td>
<td>Y305</td>
<td>305</td>
</tr>
<tr>
<td>Max. Net Qty. Per Package:</td>
<td>1 L</td>
<td>5 L</td>
</tr>
</tbody>
</table>

15. REGULATORY INFORMATION

CERCLA/SARA - Section 302 Extremely Hazardous Substances and TPQs (in pounds):
This material contains the following chemicals subject to the reporting requirements of SARA 302 and 40 CFR 372:

<table>
<thead>
<tr>
<th>Component</th>
<th>TPQ</th>
<th>EPCRA RQ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetraethyl Lead</td>
<td>100 lb</td>
<td>10 lb</td>
</tr>
</tbody>
</table>
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:

<table>
<thead>
<tr>
<th>Component</th>
<th>Concentration (wt %)</th>
<th>de minimis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xylenes</td>
<td>1-15</td>
<td>1.0%</td>
</tr>
<tr>
<td>Toluene</td>
<td>1-10</td>
<td>1.0%</td>
</tr>
<tr>
<td>Ethyl Benzene</td>
<td>1-5</td>
<td>0.1%</td>
</tr>
<tr>
<td>1,2,4-Trimethyl Benzene</td>
<td>1-5</td>
<td>1.0%</td>
</tr>
<tr>
<td>n-Hexane</td>
<td>&lt;4</td>
<td>1.0%</td>
</tr>
<tr>
<td>Cyclohexane</td>
<td>&lt;3</td>
<td>1.0%</td>
</tr>
<tr>
<td>Benzene</td>
<td>&lt;0.5</td>
<td>0.1%</td>
</tr>
</tbody>
</table>

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):

<table>
<thead>
<tr>
<th>Component</th>
<th>Type of Toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unleaded Gasoline (Wholly Vaporized)</td>
<td>Cancer</td>
</tr>
<tr>
<td>Ethylene Dibromide</td>
<td>Cancer</td>
</tr>
<tr>
<td>Toluene</td>
<td>Developmental Toxicant</td>
</tr>
<tr>
<td></td>
<td>Male Reproductive Toxicant</td>
</tr>
<tr>
<td>Benzene</td>
<td>Cancer</td>
</tr>
<tr>
<td></td>
<td>Developmental Toxicant</td>
</tr>
<tr>
<td></td>
<td>Male Reproductive Toxicant</td>
</tr>
<tr>
<td>Lead / Lead Compounds</td>
<td>Cancer</td>
</tr>
<tr>
<td></td>
<td>Developmental Toxicant</td>
</tr>
<tr>
<td></td>
<td>Female Reproductive Toxicant</td>
</tr>
<tr>
<td></td>
<td>Male Reproductive Toxicant</td>
</tr>
</tbody>
</table>

Canadian Regulations:
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 CPR.

- WHMIS Hazard Class
  - B2 - Flammable Liquids
  - D2A - Very Toxic Material

National Chemical Inventories:
All components are either listed on the US TSCA Inventory, or are not regulated under TSCA.
All components are listed on the Canadian DSL.

U.S. Export Control Classification Number: EAR99

16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>Issue Date:</th>
<th>23-May-2007</th>
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<tbody>
<tr>
<td>Status:</td>
<td>Final</td>
</tr>
<tr>
<td>Previous Issue Date:</td>
<td>17-Apr-2007</td>
</tr>
<tr>
<td>Product Code:</td>
<td>1014050</td>
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### 16. OTHER INFORMATION

<table>
<thead>
<tr>
<th>Revised Sections or Basis for Revision:</th>
<th>Health Hazard (Section 2)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fire Fighting information (Section 5)</td>
</tr>
<tr>
<td>MSDS Code:</td>
<td>001769</td>
</tr>
</tbody>
</table>

**MSDS Legend:**
- ACGIH = American Conference of Governmental Industrial Hygienists
- CAS = Chemical Abstracts Service Registry
- CEILING = Ceiling Limit (15 minutes)
- CERCLA = The Comprehensive Environmental Response, Compensation, and Liability Act
- EPA = Environmental Protection Agency
- IARC = International Agency for Research on Cancer
- 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:**
The information presented in this Material Safety Data Sheet is based on data believed to be accurate as of the date this Material Safety Data Sheet was prepared. HOWEVER, NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY OTHER WARRANTY IS EXPRESSED OR IS TO BE IMPLIED REGARDING THE ACCURACY OR COMPLETENESS OF THE INFORMATION PROVIDED ABOVE, THE RESULTS TO BE OBTAINED FROM THE USE OF THIS INFORMATION OR THE PRODUCT, THE SAFETY OF THIS PRODUCT, OR THE HAZARDS RELATED TO ITS USE. No responsibility is assumed for any damage or injury resulting from abnormal use or from any failure to adhere to recommended practices. The information provided above, and the product, are furnished on the condition that the person receiving them shall make their own determination as to the suitability of the product for their particular purpose and on the condition that they assume the risk of their use. In addition, no authorization is given nor implied to practice any patented invention without a license.