



**MATERIAL SAFETY DATA SHEET**  
**100 Octane Unleaded Racing**  
**Gasoline with Ethanol**

**1. PRODUCT AND COMPANY IDENTIFICATION**

**Product Name:** 100 Octane Unleaded Racing Gasoline with Ethanol  
**Product Code:** 100E  
**Intended Use:** Racing Gasoline  
**Chemical Family:** Petroleum Hydrocarbons  
**Responsible Party:** Rockett Brand Racing Fuels  
A Division of Paragon Performance Products  
411 E. Business Center Drive, Suite 115  
Mount Prospect, IL. 60056

**For Additional MSDS's & Technical Information:** 800-345-0076  
The intended use of this product is indicated above. If any additional use is known, please contact us at the Technical Information number listed.

**EMERGENCY OVERVIEW**

**24 Hour Emergency Telephone and Contact Information**

**Spill, Leak, Fire or Accident**

Call CHEMTREC: [www.chemtrec.com](http://www.chemtrec.com)  
North America: (800) 424-9300  
Others: (703) 527-3887

**In Case of Poisoning**

Poison Control Center:  
(800) 222-1222 or [www.aapcc.org](http://www.aapcc.org)

**Health Hazards/Precautionary Measures:** Vapor harmful. Causes eye and skin irritation. A component is a birth defect hazard. Aspiration hazard if swallowed. Can enter lungs and cause damage. Use ventilation adequate to keep exposure below recommended limits, if any. Avoid exposure during pregnancy. Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. Do not taste or swallow. Wash thoroughly after handling.

**Physical Hazards/Precautionary Measures:** Extremely flammable liquid and vapor. Vapor can cause flash fire. Keep away from heat, sparks, flames, static electricity or other sources of ignition.

**Appearance:** Clear Blue  
**Physical Form:** Liquid  
**Odor:** Gasoline

**NFPA Hazard Class:**

Health: 2 (Moderate)  
Flammability: 3 (High)  
Reactivity: 0 (Least)

\*Indicates possible chronic health effects

**HMIS Hazard Class:**

Health: 2\* (Moderate)  
Flammability: 3 (High)  
Physical Hazard: 0 (Least)

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

	<u>HAZARDOUS COMPONENTS</u>			<u>EXPOSURE GUIDELINE</u>		
		<u>Limits</u>	<u>Agency</u>	<u>Type</u>		
Alkylation Naphtha, Light..C7-10 CAS# 64741-66-8					(See: Petroleum Distillates) (Naphtha)	
Isopentane CAS# 78-78-4	600 ppm 1000 ppm	ACGIH OSHA		TWA TWA		
Toluene CAS# 108-88-3	50 ppm 200 ppm 300 ppm 500 ppm 500 ppm	ACGIH OSHA OSHA NIOSH OSHA		TWA-Skin TWA CEIL IDLH 10min. peak once per 8 hr shift		
Ethanol CAS# 64-17-5	1000 ppm 1000 ppm	ACGIH OSHA		TWA TWA		

### REFERENCE

Petroleum Distillates (Naphtha)  
CAS# None

### EXPOSURE GUIDELINES

300 ppm	ACGIH	TWA
500 ppm	ACGIH	STEL
500 ppm	OSHA	TWA
1100 ppm	NIOSH	IDLH

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

1% = 10,000 ppm All components are listed on the TSCA inventory.

## 3. HAZARDS IDENTIFICATION

### Potential Health Effects:

**Eye:** Eye irritant. Contact may cause stinging, watering, redness, and swelling.

**Skin:** Skin irritant. Contact may cause redness, itching, burning, and skin damage. Prolonged or repeated contact can worsen irritation by causing drying and cracking of the skin, leading to dermatitis (inflammation). No information available on skin absorption.

**Inhalation (Breathing):** Low to moderate degree of toxicity by inhalation.

**Ingestion (Swallowing):** Low to moderate 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 irritation of the nose and throat, irritation of the digestive tract, coughing, nausea, vomiting, diarrhea, transient excitation followed by signs of nervous system depression (e.g., headache, drowsiness, dizziness, loss of coordination, disorientation and fatigue), drunkenness, stupor and abdominal pain.

**Cancer:** No information available on the cancer hazard of this material. However, a component is a possible cancer hazard (see Sections 11 & 15).

**Target Organs:** No data available for this material. Overexposure to a component may cause injury to the central nervous system, stomach, liver, male reproductive system and heart (see section 11). There is limited evidence from animal studies that overexposure to a component may cause injury to the kidney and sense of hearing (see Section 11).

**Developmental:** No data available for this material. A component is a potential hazard to the fetus ( see Section 11).

**Other Comments:** Most adverse health effects associated with ethanol, a component of this material, are related to the chronic ingestion of alcoholic beverages. Alcoholism has been associated with liver, stomach, heart, and nervous system damage, cancer, adverse reproductive effects, and effects on the developing fetus. Many of these effects may be related to metabolic changes that result from constantly high blood levels of alcohol. This exposure pattern is significantly different from that of persons handling industrial ethanol in the workplace or from refueling cars with gasoline containing ethanol.

Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage (sometimes referred to as Solvent or Painter's Syndrome). Intentional misuse by deliberately concentrating and inhaling this material may be harmful or fatal.

**Pre-Existing Medical Conditions:** Conditions aggravated by exposure may include skin disorders, respiratory (asthma-like) disorders, kidney disorders and liver disorders.

Exposure to high concentrations of this material may increase the sensitivity of the heart to certain drugs. Persons with pre-existing heart disorders may be more susceptible to this effect (see Section 4- Note to Physicians).

#### 4. FIRST AID MEASURES

**Eye:** Move victim away from exposure and into fresh air. If irritation or redness develops, flush eyes with clean water and seek medical attention. For direct contact, hold eyelids apart and flush the affected eye(s) with clean water for at least 15 minutes. Seek medical attention.

**Skin:** Remove contaminated shoes and clothing, and flush affected areas(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. If irritation or redness develops, 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. Seek medical attention.

**Note to Physicians:** 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.

#### 5. FIRE FIGHTING MEASURES

**Flammable Properties:**

Flash Point: -45°F / -43°C TCC  
OSHA Flammability Class: Flammable Liquid  
LEL%: 2.0 / UEL%: 20.0  
Autoignition Temperature: 572°F / 300°C

**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. 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. 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.

## 6. ACCIDENTAL RELEASE MEASURES

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

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).

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 minimized vapors ( see Section 5). Spilled material may be absorbed into an appropriate absorbent material.

Notify fire authorities and appropriate federal, state, and local agencies. Immediate cleanup of any spill is recommended. If spill of any amount is made into or upon navigable waters, the contiguous zone, or adjoining shorelines, notify the National Response Center (phone number 800-424-8802).

## 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 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 ASTM D-4276 and 29CFR 1910.146. The use of appropriate respiratory protection is advised when concentrations exceed any established exposure limits (see Sections 2 and 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.

High pressure injection of hydrocarbon fuels, hydraulic oils or greases under the skin may have serious consequences even though no symptoms or injury may be apparent. This can happen accidentally when using high pressure equipment such as high pressure grease guns, fuel injection apparatus or from pinhole leaks in tubing of high pressure hydraulic oil equipment.

“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 drum reconditioner. All containers should be disposed of in an environmentally safe manner 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. 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.

**Portable Containers:** Static electricity may ignite gasoline vapors when filling portable containers. To avoid static buildup do not use a nozzle lock open device. Use only approved containers for the storage of gasoline. Place the container on the ground before filling. Keep the nozzle in contact with the container during filling. Do not fill any portable container in or on a vehicle or marine craft.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering Controls:** If current ventilation practices are not adequate to maintain airborne concentrations below the established exposure limits (see Section 2), 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):

**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 (see Section 2).

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 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 29CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

**Skin:** The use of gloves impervious to the specific material handled is advised to prevent skin contact, possible irritation, absorption, and skin damage. Examples of approved materials are Nitrile, or Viton (see glove manufacturer's literature for information on permeability). Depending on conditions of use, apron and/or arm covers may be necessary.

**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.

**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. It is recommended that impervious clothing be worn when skin contact is possible.

Suggestions for the use of specific protective materials are based on readily available published data. Users should check with specific manufactures 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).

Appearance: Clear Blue

Physical State: Liquid

Order: Gasoline

pH: Not Applicable

Vapor Pressure (mm Hg): 6.8 psi @100°F

Vapor Density (air=1): 3-4

Boiling Point/Range: 100-270°F / 38-132°C  
Freezing/Melting Point: No Data  
Solubility in Water: Negligible  
Specific Gravity: 0.744  
Bulk Density: 6.196 lb/gal  
API Gravity: 58.7  
Flash Point: -45°F / -43°C TCC  
Flammable/Explosive Limits (%): LEL: 2.0 / UEL: 20.0

## 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):** Contact with strong oxidizing agents such as chlorine, dichromates, or permanganates can cause fire or explosion.

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

**Hazardous Polymerization:** Will not occur.

## 11. TOXICOLOGICAL INFORMATION

### Alkylation Naphtha, Light..C7-10 (CAS# 64741-66-8)

**Target Organ(s):** Rats were exposed via inhalation, 6hrs/day, 5days/week for 13 weeks to 675, 2250, or 6750 ppm of light alkylate naphtha. There was no evidence of peripheral or central nervous system toxicity as measured by motor activity, functional observational battery, and neurohistopathology. Increased liver weight was noted at the highest dosage level but no histopathologic alterations were found. Increased kidney weight, hyaline droplet formation, and renal nephropathy are probably unique to male rats.

**Developmental:** Inhalation exposure of female rats to light alkylate naphtha vapor at 5000, 12500, or 25000 mg/m<sup>3</sup> for 7 consecutive weeks (prematuring, mating, gestation, up to lactation day 4), or for 8 consecutive week in males did not result in systemic, reproductive, or developmental toxicity.

### Toluene (CAS# 108-88-3)

**Target Organ(s):** 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.

**Developmental:** 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.

### Ethanol (CAS# 64-17-5)

**Carcinogenicity:** Ingestion of alcoholic beverages has been classified by IARC as "carcinogenic to humans" (Group 1). Occupational exposures to ethanol and exposures other than by ingestion (i.e., dermal and inhalation) have not been associated with cancer in humans.

**Target Organ(s):** Chronic alcoholism has been associated with damage to the liver in humans (e.g., cirrhosis of the liver). Excessive consumption of alcoholic beverages has also been associated with adverse effects on the central nervous system, digestive system, cardiovascular system, and the reproductive system including reduced sperm count and motility and loss of libido in men, abnormal menstrual function, and decreased plasma estradiol and progesterone levels in women.

**Developmental:** Excessive consumption of alcoholic beverages during pregnancy has been associated with effects on the developing fetus referred to collectively as the fetal alcohol syndrome. The effects most frequently manifested include psychomotor dysfunction, growth retardation and a characteristic cluster of facial anomalies.

**Mutagenicity:** Excessive consumption of alcoholic beverages has been associated with chromosomal aberrations in white blood cells. Depending on the animal species being tested, ethanol may produce chromosomal damage, DNA damage and mutation in both somatic and germ cells.

## 12. ECOLOGICAL INFORMATION

Spilling of gasoline can result in environmental damage.

Gasoline floats on water and evaporates rapidly from water or soil surfaces. However, spilled gasoline may penetrate soil and could contaminate groundwater.

Gasoline is biodegradable but in situations of low oxygen, such as in soil below grade or in groundwater, may persist for many years.

Gasoline does not readily dissolve in water but will be adsorbed to soils. Gasoline in the environment can be toxic to plants and animals.

## 13. DISPOSAL CONSIDERATIONS

This material, if discarded as produced, would be a RCRA "characteristic" hazardous waste due to the characteristic(s) of ignitability (D001). If the spilled or released material impacts soil, water, or other media, characteristic testing of the contaminated materials may be required prior to their disposal. Further, this material, once it becomes a waste, is subject to the land disposal restrictions in 40CFR 268.40 and may require treatment prior to disposal to meet specific standards. Consult state and local regulations to determine whether they are more stringent than the federal requirements.

Container contents should be completely used and containers should be emptied prior to discard. Container rinsate could be considered a RCRA hazardous waste and must be disposed of with care and in full compliance with federal, state and local regulations. Larger empty containers, such as drums, should be returned to the distributor or to a drum reconditioner. To assure proper disposal of smaller empty containers, consult with state and local regulations and disposal authorities.

## 14. TRANSPORT INFORMATION

<b>DOT Shipping Description:</b>	Gasoline,3,UN1203,II
<b>Non-Bulk Package Marking:</b>	Gasoline,UN1203
<b>Non-Bulk Package Label:</b>	Flammable
<b>Bulk Package Placard/Marking:</b>	Flammable/1203
<b>Hazardous Substance/RQ:</b>	None
<b>Packaging References:</b>	49CFR 173.150, 173.202, 173.242
<b>Emergency Response Guide:</b>	128

## 15. REGULATORY INFORMATION

### EPA SARA 311/312 (Title III Hazard Categories):

**Acute Health:** Yes  
**Chronic Health:** Yes  
**Fire Hazard:** Yes  
**Pressure Hazard:** No  
**Reactive Hazard:** No

### SARA 313 AND 40CFR 372

This material contains the following chemicals subject to the reporting requirements of SARA 313 and 40CFR 372:

Component	CAS Number	Weight %
Toluene	108-88-3	20-30

### California Proposition 65:

**Warning:** This material contains the following chemicals which are known to the State of California to cause cancer, birth defects or other reproductive harm, and are subject to the requirements of California Proposition 65 (California Health & Safety Code Section 25249.5):

Component	Effect
Toluene	Developmental Toxicant
Unleaded Gasoline (wholly vaporized)	Cancer

### Carcinogen Identification:

Conventional unleaded gasoline has been identified as a carcinogen by IARC. This material has not been identified as a carcinogen by NTP, IARC, or OSHA. See Section 11 for carcinogenicity information of individual components, if any.

### EPA (CERCLA) Reportable Quantity:

None

## 16. OTHER INFORMATION

**Issue Date:** 01/30/2010

**Previous Issue Date:** 01/01/2004

**Product Code:** 100E

**Revised Sections:** Section 1, Responsible Party, New Address

**MSDS Number:** 100E

**Status:** Final

### **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.