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 An Axel Johnson, Inc. Company

**MATERIAL SAFETY DATA SHEET**

**GASOLINE**

(Reformulated ~ Conventional)

Content Last Revised 10/12/00; 07/22/02;  
 06/05.  
 5 pages.

SECTION 1 - MATERIAL IDENTIFICATION		24 HOUR EMERGENCY INFORMATION	
<b>PRODUCT / CHEMICAL NAME:</b>	GASOLINE 93 OCTANE PREMIUM 89 OCTANE MID-GRADE 87 OCTANE REGULAR	Sprague:	603-431-1000
		Chemtrec:	800-424-9300
<b>PRODUCT / CHEMICAL SYNONYMS:</b>	UNLEADED GASOLINE REFORMULATED (RFG) GAS CONVENTIONAL GASOLINE	<b>HMIS / NFPA HAZARD RATING</b>	<p>← FIRE          REACTIVITY          ← OTHER          HEALTH</p>
<b>CHEMICAL FAMILY / FORMULA:</b>	ALIPHATIC AND AROMATIC PETROLEUM HYDROCARBONS MIXTURE	<b>4=EXTREME 3=SERIOUS 2=MODERATE 1=SLIGHT 0=MINIMAL</b>	
<b>MATERIAL USE OR OCCURRENCE:</b>	BLENDED MOTOR FUEL		

SECTION 2 - INGREDIENTS						
COMPONENT	%	C.A.S. NO.	OSHA PEL	OSHA STEL	ACGIH TLV	OTHER
Benzene	0 - 2.0	71-43-2	1		10	
Light Petroleum Distillate	0 - <99.9	8006-61-9	300		300	
Cumene	0 - <1	98-82-8	50		50	
Ethyl Benzene	0 - <5	100-41-4	100		100	
Toluene	0 - 30	108-88-3	100 TWA/150STEL		50	
Xylene	0 - 25	1330-20-7	100 TWA/150STEL		100	
Naphthalene	0 - 5	91-20-3	10		10	
Cyclohexane	0 - 9	110-82-7	300		300	
O Hexane (all isomers)	0 - 1	NA	500		500	
1,2,4 Trimethyl Benzene	0 - 5	95-63-6	25		25	
Butane	0 - 9	75-28-5	800 TWA ppm		800 TWA ppm	
Pentane	0 - 2	109660	600		600	
Tert-Butyl Alcohol	0 - 9.9	75-65-0	100 TWA/150 STEL ppm		100TWA/150STEL ppm	
Methyl-Tert-Butyl Ether	0 - <15	1634-04-4	TWA 100 ppm		STEL 150 ppm	
Tert-Amyl Methyl Ether	0 - 17	994-05-8	N/A		N/A	

SECTION 3 - PHYSICAL DATA			
<b>BOILING POINT:</b>	100°-430°F (38° -221°C)	<b>% VOLATILITY BY VOLUME:</b>	100%
<b>VAPOR PRESSURE:</b>	325 - 525 (mmHg @ 20°C)	<b>VAPOR DENSITY (AIR = 1):</b>	<4
<b>SPECIFIC GRAVITY</b>	0.74 @15°C where (H2O = 1):	<b>SOLUBILITY IN WATER:</b>	Slight
<b>EVAPORATION RATE (n-butyl acetate = 1):</b> Rapid and varies			
<b>APPEARANCE &amp; ODOR:</b> Colorless liquid. Gasoline odor.			



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**SECTION 4 - FIRE AND EXPLOSION HAZARD DATA**

**FLASH POINT:** -40°F (- 40°C) (Tag. Closed Cup)

**AUTOIGNITION TEMP:** 536 °F (280°C)

**FLAMMABILITY LIMITS IN AIR (% BY VOL.)**

**LEL:** 1.5

**UEL:** 7.6

**EXTINGUISHING MEDIUM:** Foam, carbon dioxide, dry chemical, and water fog.

**SPECIAL FIRE FIGHTING PROCEDURES:** Evacuate area. For large spills, fire-fighting foam is the preferred agent and should be applied in sufficient quantities to blanket the gasoline surface. Water spray may be used to flush spill away from exposures, but good judgment should be practiced to prevent spreading of the gasoline into sewers, streams or drinking water supplies. If a leak or spill has not ignited, apply a foam blanket to suppress the release of vapors. If foam is not available, a water spray curtain can be used to disperse vapors and to protect personnel attempting to stop the leak.

**UNUSUAL FIRE AND EXPLOSION HAZARDS: EXTREMELY FLAMMABLE.** Do not store or pour near sources of ignition. Do not pressurize, cut, heat, weld, or expose to sources of ignition. Vapors are heavier than air and may travel a considerable distance to a source of ignition and flash back. Do not mix or store with strong oxidants. Bond and ground all containers/transfers.

**SECTION 5 - HEALTH DATA**

	<b>ACUTE HEALTH EFFECTS</b>	<b>CHRONIC HEALTH EFFECTS</b>
<b>INHALATION</b>	Central nervous system depressant. May cause headaches and irritation to the nose, throat, and lungs.	Chronic exposure to the component benzene may result in adverse effects of the blood including anemia, decreased white blood cell count, decreased platelets, aplastic anemia and leukemia. In addition, chronic inhalation of vapors of the component benzene may cause fatigue, nervousness, irritability, blurred vision and labored breathing. Chronic inhalation of the n-hexane vapors, a component of this material, may result in severe degeneration of the peripheral nervous system. Epidemiological studies have reported anxiety and asthmatic bronchitis among workers chronically exposed to isomers of trimethylbenzene.
<b>INGESTION</b>	May cause irritation and burning of the gastrointestinal tract (mouth, throat, and stomach). May cause nausea, vomiting, diarrhea, and restlessness.	Chronic effects of ingestion and subsequent aspiration of this product into the lungs may include pneumatocele (lung cavity) formation and chronic lung dysfunction.
<b>SKIN CONTACT</b>	May cause irritation, drying, and cracking of the skin. May cause dermatitis.	Prolonged and repeated contact with the skin may cause redness, blistering, dryness, lesions and/or scaly dermatitis.
<b>EYE CONTACT</b>	Irritation of the eye	Symptoms of chronic exposure resemble those of acute exposure

**FIRST AID**



**PROCEDURES**

**INHALATION:** Remove from vapor to fresh air. If breathing has stopped give artificial respiration. Maintain airway and blood pressure and administer oxygen if available. Keep affected person warm and at rest. Qualified personnel should perform administration of oxygen. Get medical attention immediately.

**INGESTION:** Do not induce vomiting or give anything by mouth to an unconscious person. When vomiting occurs, keep persons head lower than heart to prevent pulmonary aspiration. Get medical attention immediately. If less than ½ pint (liter) ingested, immediately give 1-2 glasses of water and call a physician. Ingestion in small quantities is not expected to be a problem.

**SKIN CONTACT:** Wash affected area with soap or mild detergent and large amounts of water until no evidence of chemical remains (approximately 15-20 minutes). If irritation develops, seek medical aid. Remove fuel soaked clothing and launder before reuse.

**EYE CONTACT:** Flush eyes immediately with large amounts of water, occasionally lifting upper and lower lids until no evidence of chemical remains (approximately 15-20 minutes). If irritation develops, seek medical aid.

**TOXICOLOGICAL** Gasoline and Refinery Streams: Studies conducted by the American Petroleum Institute examined a reference

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**DATA**

unleaded gasoline for mutagenic, teratogenic and sensitization potential; no evidence of these hazards was found. However, isolated constituents of gasoline may display these or other potential hazards in laboratory tests. There were no significant adverse effects in three-month subchronic inhalation studies in rats or monkeys, or in a two-year skin cancer study in mice. Studies with laboratory concentrations over a prolonged period of time caused kidney damage and kidney cancer in male rats and liver cancer in female mice. There was no evidence of significant adverse systemic or reproductive effects for light catalytic cracked naphthas and reformed naphthas. Components: Gasoline consists of a complex blend of petroleum/processing derived paraffinic, olefinic, naphthenic and aromatic hydrocarbons which include up to 5% benzene (with 1-2% typical in the U.S.), n-hexane, mixed zylenes, toluene, ethylbenzene and trimethyl benzene. Repeated exposures to low levels of benzene have been reported to result in blood abnormalities including anemia and, in rare cases, leukemia in both animals and humans. Prolonged exposure to n-hexane may result in nervous system damage, including numbness of the extremities and, in extreme cases, paralysis. The adverse effects associated with these components have not been observed in studies with gasoline or the refinery streams from which it is formulated. Generally, human exposures to gasoline vapors are considerably less than those used in the animal toxicity studies. As far as scientists know, low level or infrequent exposures to gasoline vapors are unlikely to be associated with cancer or other serious diseases in humans.

**SECTION 6 - REACTIVITY DATA**

<b>STABILITY:</b>	Stable under normal temperatures and pressures.
<b>HAZARDOUS POLYMERIZATION:</b>	Hazardous polymerization will not occur.
<b>CONDITIONS TO AVOID:</b>	Avoid build-up of static electricity. May be ignited by heat, sparks, or flame. Vapors may travel to a source of ignition and flash back. Vapor explosion hazard indoors, outdoors, or in sewers.
<b>INCOMPATIBLES:</b>	May explode or react violently when exposed to oxidizing materials. Avoid halogens, strong acids and alkalies.
<b>DECOMPOSITION PRODUCTS:</b>	Carbon monoxide, oxides of nitrogen, and hydrocarbons.

**SECTION 7 - SPECIAL PROTECTION**

<b>RESPIRATORY PROTECTION:</b>	Use with adequate ventilation. Use approved respiratory protection, for large spills or when conducting work in confined spaces.
<b>VENTILATION:</b>	Use in well ventilated area with local exhaust ventilation. Ventilation required and equipment must be explosion proof. Use away from all ignition sources.
<b>EYE PROTECTION:</b>	If splash with liquid is possible, wear chemical type goggles.
<b>PROTECTIVE GLOVES:</b>	Neoprene, PVC
<b>OTHER PROTECTIVE CLOTHING OR EQUIPMENT:</b>	Employee must wear appropriate impervious clothing and equipment to prevent repeated or prolonged skin contact with this substance.

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**SECTION 8 - SPECIAL PRECAUTIONS****SAFE HANDLING:**

- NEVER SIPHON GASOLINE BY MOUTH.
- GASOLINE SHOULD NOT BE USED AS A SOLVENT OR CLEANING AGENT.
- USE NON-SPARKING TOOLS AND EXPLOSION-PROOF EQUIPMENT.
- AVOID CONTACT WITH SKIN. AVOID INHALATION OF VAPORS OR MISTS.
- USE IN WELL VENTILATED AREA AWAY FROM ALL IGNITION SOURCES.
- PORTABLE CONTAINERS APPROVED FOR STORING FUEL MUST BE PLACED ON THE GROUND AND THE NOZZLE MUST STAY IN CONTACT WITH THE CONTAINER WHEN FILLING TO PREVENT BUILD-UP AND DISCHARGE OF STATIC ELECTRICITY.

**STORAGE:**

- DRUMS AND STORAGE CONTAINERS MUST BE GROUNDED AND BONDED AND EQUIPPED WITH SELF-CLOSING VALVES, PRESSURE VACUUM BUNGS AND FLAME ARRESTERS. STORE AWAY FROM ALL IGNITION SOURCES IN A COOL AREA EQUIPPED WITH AN AUTOMATIC SPRINKLING SYSTEM. OUTSIDE OR DETACHED STORAGE PREFERRED.

**SPILL AND LEAK PROCEDURES:**

DANGER, EXTREMELY FLAMMABLE LIQUID AND VAPOR! Shut off ignition sources (no smoking, shut off flames or flares in hazard area). Isolate hazard area and restrict entry. Run-off may create a fire and explosion hazard in storm drains and sewer systems. If properly trained, proceed with the following measures:

1. For small spills, take up with sand or other absorbent material and place into containers for later disposal; and,
2. For large spills, dike far ahead of spill to prevent entrance into watercourses and/or ground water. Observe local, state, and federal governmental regulations.

**WASTE DISPOSAL METHOD**

1. Under EPA RCRA (40 CFR 261.21) If this product becomes a waste material intended for disposal, it would be ignitable hazardous waste (waste code number D001).
2. It may also have TCLP benzene concentration greater than 0.5 PPM, and it would be considered a toxic waste (waste code number D018). Refer to latest EPA and State regulations regarding proper disposal.

**SECTION 9 - DOT HAZARDOUS MATERIAL INFORMATION**

<b>PROPER DOT SHIPPING NAME:</b> GASOLINE; 3; UN 1203, PGII		<b>LABEL:</b> FLAMMABLE LIQUID	<b>REQUIRED PLACARDING:</b> FLAMMABLE / UN 1203
<b>HAZARD CLASS:</b> CLASS 3 (Flammable liquid)	<b>PACKING GROUP (P.G.):</b> II	<b>N.A/U.N. NUMBER:</b> UN 1203 (Note, Emergency Response Guide #128)	<b>RQ:</b> N/A

**SECTION 10 - EPA SARA TITLE III INFORMATION**

<b>SECTION 311/312 HAZARD CLASSIFICATION:</b>	<b>ACUTE:</b> YES	<b>CHRONIC:</b> YES
	<b>FIRE:</b> YES	<b>PRESSURE:</b> NO
		<b>REACTIVE:</b> NO

**SECTION 11 - REMARKS**

This product contains no "extremely hazardous substances". The product does contain components that may require reporting under SARA (313) Toxic Release. Please refer to section 2 Ingredients and associated component concentrations.



**SECTION 12 - ADDITIONAL REGULATORY DATA**

**PRECAUTIONARY LABEL TEXT:**

**CONTAINS GASOLINE DANGER! FOR INDUSTRIAL USE ONLY!**

**EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE. MAY CAUSE EYE, SKIN, NOSE, THROAT AND LUNG IRRITATION, DIZZINESS, NAUSEA, LOSS OF CONSCIOUSNESS. LOW VISCOSITY MATERIAL-IF SWALLOWED MAY BE ASPIRATED AND CAN CAUSE SERIOUS OR FATAL LUNG DAMAGE.**

**LONG-TERM EXPOSURE TO GASOLINE VAPOR HAS CAUSED KIDNEY AND LIVER CANCER IN LABORATORY ANIMALS.**

**Keep away from heat, sparks, and flame. Avoid all personal contact. Avoid prolonged breathing of vapor. Keep container closed. Use with adequate ventilation. Misuse of gasoline may cause serious injury or illness. For use as a motor fuel only. Not to be used as a solvent or skin cleaning agent. Never siphon by mouth.**

**FIRST AID: If inhaled, remove to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Call a physician immediately. In case of contact, immediately wash skin with soap and plenty of water. Remove contaminated clothing. Call a physician if symptoms occur. Wash clothing before reuse. If swallowed, seek immediate medical attention. Do not induce vomiting. Only induce vomiting at the instruction of a physician. Do not induce vomiting or give any thing by mouth to an unconscious person.**

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