



MATERIAL SAFETY DATA SHEET

PRODUCT NAME: MAPLLC REGULAR UNLEADED GASOLINE
MSDS NO: 0127MAR019

THE FOLLOWING INFORMATION IS FURNISHED SUBJECT TO THE DISCLAIMER ON THE BOTTOM OF THIS FORM

1. CHEMICAL PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: MAPLLC REGULAR UNLEADED GASOLINE

MANUFACTURER / DISTRIBUTOR:
MARATHON ASHLAND PETROLEUM LLC
539 SOUTH MAIN STREET
FINDLAY OH 45840

SYNONYMS:
CONVENTIONAL REGULAR UNLEADED GASOLINE,
MAPLLC; MAPLLC REGULAR UNLEADED GASOLINE;
REGULAR UNLEADED GASOLINE, MAPLLC; UNLEADED
REGULAR GASOLINE, MAPLLC

EMERGENCY PHONE NUMBERS:
(877) 627-5463
(800) 424-9300

CHEMICAL FAMILY: PETROLEUM HYDROCARBON
CHEMICAL FORMULA: MIXTURE
PRODUCT CODE: NONE

MSDS INFORMATION: (419) 421-3070

MSDS REVISION DATE: 07/28/1998

INFORMATION SUPPLIED BY: CRAIG M. PARKER
MANAGER, TOXICOLOGY AND PRODUCT SAFETY

2. COMPOSITION / INFORMATION ON INGREDIENTS

PRODUCT INFORMATION:

MAPLLC REGULAR UNLEADED GASOLINE (CAS # 86290-81-5) IS A/AN
COMPLEX MIXTURE OF PARAFFINS, CYCLOPARAFFINS, OLEFINS AND AROMATIC
HYDROCARBONS HAVING HYDROCARBON CHAIN LENGTHS PREDOMINANTLY IN THE
RANGE OF C4 THROUGH C12. COMPONENTS MAY BE PRESENT FROM TRACE AMOUNTS
UP TO THE RANGES SHOWN.

CONTAINS SMALL AMOUNTS OF DYE AND OTHER ADDITIVES (<0.02%) WHICH ARE
NOT CONSIDERED HAZARDOUS AT THE CONCENTRATIONS USED.

<u>COMPONENTS:</u>	<u>PERCENT RANGE</u>	<u>CAS NUMBER</u>
SATURATED HYDROCARBONS (PARAFFINS AND CYCLOPARAFFINS)	55.00- 80.00	MIXTURE
AROMATIC HYDROCARBONS (INCLUDING BENZENE, TOLUENE, XYLENES, ETHYLBENZENE AND TRIMETHYL BENZENES)	20.00- 40.00	MIXTURE
XYLENE	5.00- 15.00	1330-20-7
TOLUENE	3.00- 15.00	108-88-3
1,2,4-TRIMETHYLBENZENE	2.00- 5.00	95-63-6
UNSATURATED HYDROCARBONS (OLEFINS)	1.00- 15.00	MIXTURE
ETHYL BENZENE	1.00- 3.00	100-41-4
BENZENE	0.50- 3.50	71-43-2



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2. COMPOSITION / INFORMATION ON INGREDIENTS (CON'T)

EXPOSURE GUIDELINES

PRODUCT:

MAPLLC REGULAR UNLEADED GASOLINE

LIMIT	TYPE	SOURCE
300.00 PPM	8 HR TWA	ACGIH
500.00 PPM	STEL	ACGIH
300.00 PPM	8 HR TWA	OSHA
500.00 PPM	STEL	OSHA

COMPONENTS:

SATURATED HYDROCARBONS

NONE ESTABLISHED

AROMATIC HYDROCARBONS

NONE ESTABLISHED

XYLENE

LIMIT	TYPE	SOURCE
100.00 PPM	8 HR TWA	ACGIH
150.00 PPM	STEL	ACGIH
100.00 PPM	8 HR TWA	OSHA*
150.00 PPM	STEL	OSHA*

* THE MANUFACTURER HAS VOLUNTARILY ELECTED TO REFLECT EXPOSURE LIMITS CONTAINED IN OSHA'S 1989 AIR CONTAMINANTS STANDARD IN ITS MSDS'S, EVEN THOUGH CERTAIN OF THOSE EXPOSURE LIMITS WERE VACATED IN 1992.

TOLUENE

LIMIT	TYPE	SOURCE
50.00 PPM	8 HR TWA	ACGIH
100.00 PPM	8 HR TWA	OSHA*
150.00 PPM	STEL	OSHA*

* THE MANUFACTURER HAS VOLUNTARILY ELECTED TO REFLECT EXPOSURE LIMITS CONTAINED IN OSHA'S 1989 AIR CONTAMINANTS STANDARD IN ITS MSDS'S, EVEN THOUGH CERTAIN OF THOSE EXPOSURE LIMITS WERE VACATED IN 1992.

1,2,4-TRIMETHYLBENZENE

LIMIT	TYPE	SOURCE
25.00 PPM	8 HR TWA	ACGIH
25.00 PPM	8 HR TWA	OSHA*

* THE MANUFACTURER HAS VOLUNTARILY ELECTED TO REFLECT EXPOSURE LIMITS CONTAINED IN OSHA'S 1989 AIR CONTAMINANTS STANDARD IN ITS MSDS'S, EVEN THOUGH CERTAIN OF THOSE EXPOSURE LIMITS WERE VACATED IN 1992.

UNSATURATED HYDROCARBONS

NONE ESTABLISHED

ETHYL BENZENE

NONE ESTABLISHED

* THE MANUFACTURER HAS VOLUNTARILY ELECTED TO REFLECT EXPOSURE LIMITS CONTAINED IN OSHA'S 1989 AIR CONTAMINANTS STANDARD IN ITS MSDS'S, EVEN THOUGH CERTAIN OF THOSE EXPOSURE LIMITS WERE VACATED IN 1992.

BENZENE

LIMIT	TYPE	SOURCE
0.50 PPM	8 HR TWA	ACGIH
2.50 PPM	STEL	ACGIH
1.00 PPM	8 HR TWA	OSHA
5.00 PPM	STEL	OSHA

OSHA ACTION LEVEL 0.50 PPM (8 HR TWA)



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3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

GASOLINE IS EITHER A CLEAR OR COLORED LIQUID WITH A STRONG HYDROCARBON ODOR. GASOLINE IS A VOLATILE AND EXTREMELY FLAMMABLE LIQUID AND MAY CAUSE FLASH FIRES. KEEP AWAY FROM HEAT, SPARKS OR FLAME. GASOLINE CAN ALSO CONTAIN SIGNIFICANT CONCENTRATIONS OF BENZENE WHICH HAS BEEN SHOWN TO CAUSE CANCER OR BE TOXIC TO BLOOD-FORMING ORGANS. NEVER SIPHON THIS PRODUCT BY MOUTH. IF SWALLOWED, GASOLINE MAY GET SUCKED INTO THE LUNGS (ASPIRATED) AND CAUSE LUNG DAMAGE OR EVEN DEATH.

OSHA WARNING LABEL:

DANGER!
EXTREMELY FLAMMABLE.
ASPIRATION (INADVERTENT SUCTION) OF LIQUID INTO THE LUNGS
CAN PRODUCE CHEMICAL PNEUMONIA OR EVEN DEATH.
CONTAINS BENZENE WHICH MAY CAUSE
CANCER OR BE TOXIC TO BLOOD-FORMING ORGANS.

CONSUMER WARNING LABEL:

GASOLINE HEALTH & SAFETY WARNING

- EXTREMELY FLAMMABLE, VAPORS MAY EXPLODE
- HARMFUL OR FATAL IF SWALLOWED
- LONG TERM EXPOSURE TO VAPORS HAS CAUSED CANCER IN LABORATORY ANIMALS
- KEEP FACE AWAY FROM NOZZLE WHILE FILLING
- KEEP NOZZLE AWAY FROM EYES AND SKIN
- NEVER SIPHON BY MOUTH
- DON'T OVERFILL TANK

FOR USE AS A MOTOR FUEL ONLY

POTENTIAL HEALTH EFFECTS

EYE:

EYE IRRITATION MAY RESULT FROM CONTACT WITH THE LIQUID OR EXPOSURE TO VAPOR CONCENTRATIONS ABOVE THE TLV.

SKIN:

PROLONGED OR REPEATED LIQUID CONTACT CAN DEFAT THE SKIN AND LEAD TO IRRITATION AND/OR DERMATITIS.



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Petroleum LLC

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3. HAZARDS IDENTIFICATION (CON'T)

INHALATION:

EXPOSURE TO VAPOR CONCENTRATIONS EXCEEDING 1,000 PPM CAN CAUSE RESPIRATORY IRRITATION, HEADACHE, DIZZINESS, NAUSEA AND LOSS OF COORDINATION. HIGHER CONCENTRATIONS MAY CAUSE LOSS OF CONSCIOUSNESS, CARDIAC SENSITIZATION, COMA AND DEATH RESULTING FROM RESPIRATORY FAILURE.

INTENTIONAL OVEREXPOSURE TO HIGH CONCENTRATIONS OF GASOLINE VAPORS (SUCH AS GASOLINE SNIFFING) CAN CAUSE NERVOUS SYSTEM AND BRAIN DAMAGE, CONVULSIONS AND SUDDEN DEATH FROM CARDIAC ARREST.

INGESTION:

INGESTION MAY RESULT IN NAUSEA, VOMITING, DIARRHEA AND RESTLESSNESS. ASPIRATION (INADVERTENT SUCTION) OF LIQUID INTO THE LUNGS MUST BE AVOIDED AS EVEN SMALL QUANTITIES IN THE LUNGS CAN PRODUCE CHEMICAL PNEUMONITIS, PULMONARY EDEMA/HEMORRHAGE AND EVEN DEATH.

CARCINOGEN LISTING:

THE INTERNATIONAL AGENCY FOR RESEARCH ON CANCER (IARC) HAS DETERMINED THAT THERE IS INADEQUATE EVIDENCE FOR THE CARCINOGENICITY OF GASOLINE IN HUMANS. IARC DETERMINED THAT LIMITED EVIDENCE OF CARCINOGENICITY IN ANIMALS EXISTS. IARC'S OVERALL EVALUATION OF GASOLINE, IN SPITE OF LIMITED CARCINOGENICITY EVIDENCE, HAS RESULTED IN THE IARC DESIGNATION OF GASOLINE AS POSSIBLY CARCINOGENIC TO HUMANS (GROUP 2B) BECAUSE GASOLINE CONTAINS BENZENE. THE NATIONAL TOXICOLOGY PROGRAM (NTP), OSHA AND IARC HAVE DETERMINED THAT THERE IS SUFFICIENT EVIDENCE FOR THE CARCINOGENICITY OF BENZENE IN HUMANS (GROUP 1A).

IARC HAS DETERMINED THAT THERE IS INADEQUATE EVIDENCE FOR THE CARCINOGENICITY OF GASOLINE ENGINE EXHAUST IN HUMANS OR ANIMALS. HOWEVER, IARC'S OVERALL EVALUATION ON GASOLINE ENGINE EXHAUST, IN SPITE OF THE ABSENCE OF CARCINOGENICITY DATA, HAS RESULTED IN THE IARC DESIGNATION OF GASOLINE ENGINE EXHAUST AS POSSIBLY CARCINOGENIC TO HUMANS (GROUP 2B) BECAUSE OF THE PRESENCE OF CERTAIN ENGINE EXHAUST COMPONENTS.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

PRE-EXISTING EYE, SKIN, RESPIRATORY, LIVER AND/OR KIDNEY DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO GASOLINE.

4. FIRST AID MEASURES

EYE:

FLUSH EYES WITH LARGE AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. IF SYMPTOMS OR IRRITATION OCCUR, CALL A PHYSICIAN.



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4. FIRST AID MEASURES (CON'T)

SKIN:

WASH WITH SOAP AND LARGE AMOUNTS OF WATER. REMOVE CONTAMINATED CLOTHING. IF SYMPTOMS OR IRRITATION OCCUR, CALL A PHYSICIAN.

INHALATION:

IF AFFECTED, MOVE PERSON TO FRESH AIR. IF BREATHING IS DIFFICULT, ADMINISTER OXYGEN. IF NOT BREATHING OR IF NO HEARTBEAT, GIVE ARTIFICIAL RESPIRATION OR CARDIOPULMONARY RESUSCITATION (CPR). IMMEDIATELY CALL A PHYSICIAN. IF SYMPTOMS OR IRRITATION OCCUR WITH ANY EXPOSURE, CALL A PHYSICIAN.

INGESTION:

DO NOT INDUCE VOMITING. DO NOT GIVE LIQUIDS. IMMEDIATELY CALL A PHYSICIAN.

NOTES TO PHYSICIAN:

NO DATA AVAILABLE.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES:

FLASH POINT: -50 F
AUTOIGNITION TEMP: C.A. 495 F
EXPLOSIVE LIMITS (% BY VOLUME IN AIR)
LOWER: 1.4
UPPER: 7.6

FIRE AND EXPLOSION HAZARDS:

THIS MATERIAL HAS BEEN DETERMINED TO BE A FLAMMABLE LIQUID. VAPORS MAY TRAVEL ALONG THE GROUND OR BE MOVED BY VENTILATION AND IGNITED BY MANY SOURCES SUCH AS PILOT LIGHTS, SPARKS, ELECTRIC MOTORS, STATIC DISCHARGE, OR OTHER IGNITION SOURCES AT LOCATIONS DISTANT FROM MATERIAL HANDLING. FLASHBACK MAY OCCUR ALONG VAPOR TRAIL. FOR ADDITIONAL FIRE RELATED INFORMATION, SEE NFPA 30 OR NORTH AMERICAN EMERGENCY RESPONSE GUIDE 128.

EXTINGUISHING MEDIA:

FOR SMALL FIRES, CLASS B FIRE EXTINGUISHING MEDIA SUCH AS CO2, DRY CHEMICAL, FOAM (AFFF/ATC) OR WATER SPRAY CAN BE USED. FOR LARGE FIRES, WATER SPRAY, FOG OR FOAM (AFFF/ATC) CAN BE USED. FIRE FIGHTING SHOULD BE ATTEMPTED ONLY BY THOSE WHO ARE ADEQUATELY TRAINED AND EQUIPPED WITH PROPER PROTECTIVE EQUIPMENT.



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5. FIRE FIGHTING MEASURES (CON'T)

SPECIAL FIRE FIGHTING INSTRUCTIONS:

AVOID USE OF STRAIGHT WATER STREAMS. WATER MAY BE INEFFECTIVE IN EXTINGUISHING LOW FLASH POINT FIRES, BUT CAN BE USED TO COOL EXPOSED SURFACES. AVOID EXCESSIVE WATER SPRAY APPLICATION. WATER SPRAY AND FOAM (AFFF/ATC) MUST BE APPLIED CAREFULLY TO AVOID FROTHING AND FROM AS FAR A DISTANCE AS POSSIBLE. KEEP RUN-OFF WATER OUT OF SEWERS AND WATER SOURCES.

6. ACCIDENTAL RELEASE MEASURES

ISOLATE AND EVACUATE AREA. SHUT OFF SOURCE IF SAFE TO DO SO. ELIMINATE ALL IGNITION SOURCES. ADVISE NATIONAL RESPONSE CENTER (800-424-8802) IF PRODUCT HAS ENTERED A WATERWAY. NOTIFY LOCAL HEALTH AND POLLUTION CONTROL AGENCIES, IF APPROPRIATE. CONTAIN LIQUID WITH SAND OR SOIL. RECOVER AND RETURN FREE LIQUID TO PROPER CONTAINERS. USE SUITABLE ABSORBENT MATERIALS SUCH AS VERMICULITE, SAND OR CLAY TO CLEAN UP RESIDUAL LIQUIDS.

7. HANDLING AND STORAGE

FOR USE AS A MOTOR FUEL ONLY. GASOLINE SHOULD NEVER BE USED AS A SOLVENT DUE TO ITS FLAMMABLE AND POTENTIALLY TOXIC PROPERTIES. SIPHONING BY MOUTH CAN RESULT IN LUNG ASPIRATION WHICH CAN BE HARMFUL OR FATAL.

PORTABLE CONTAINERS OF 12 GALLONS (45 LITERS) OR LESS SHOULD NEVER BE FILLED WITH GASOLINE WHILE THEY ARE IN OR ON A MOTOR VEHICLE OR MARINE CRAFT. STATIC ELECTRIC DISCHARGE CAN IGNITE FUEL VAPORS WHEN FILLING NON-GROUNDED CONTAINERS OR VEHICLES ON TRAILERS. CONTAINERS SHOULD BE PLACED ON THE GROUND. THE NOZZLE SPOUT MUST BE KEPT IN CONTACT WITH THE CONTAINER BEFORE AND DURING THE ENTIRE FILLING OPERATION. USE ONLY APPROVED CONTAINERS.

COMPLY WITH ALL APPLICABLE OSHA, NFPA AND CONSISTENT LOCAL REQUIREMENTS. USE APPROPRIATE GROUNDING AND BONDING PRACTICES. STORE IN PROPERLY CLOSED CONTAINERS THAT ARE APPROPRIATELY LABELED AND IN A COOL WELL-VENTILATED AREA. DO NOT EXPOSE TO HEAT, OPEN FLAME, OXIDIZERS OR OTHER SOURCES OF IGNITION. DO NOT CUT, DRILL, GRIND OR WELD ON EMPTY CONTAINERS SINCE THEY MAY CONTAIN EXPLOSIVE RESIDUES. AVOID SKIN CONTACT. EXERCISE GOOD PERSONAL HYGIENE INCLUDING REMOVAL OF SOILED CLOTHING AND PROMPT WASHING WITH SOAP AND WATER.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

ENGINEERING CONTROLS:

LOCAL OR GENERAL EXHAUST REQUIRED IN AN ENCLOSED AREA OR WITH INADEQUATE VENTILATION.



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8. EXPOSURE CONTROL / PERSONAL PROTECTION (CON'T)

PERSONAL PROTECTIVE EQUIPMENT:

RESPIRATORY PROTECTION:

APPROVED ORGANIC VAPOR CHEMICAL CARTRIDGE OR SUPPLIED AIR RESPIRATORS SHOULD BE WORN FOR EXPOSURES EXCEEDING THE TLV OR STEL. OBSERVE RESPIRATOR PROTECTION FACTOR CRITERIA CITED IN ANSI Z88.2. SELF-CONTAINED BREATHING APPARATUS SHOULD BE USED FOR FIRE FIGHTING.

SKIN PROTECTION:

USE NITRILE RUBBER, VITON OR PVA GLOVES FOR REPEATED OR PROLONGED SKIN EXPOSURE.

EYE PROTECTION:

NO SPECIAL EYE PROTECTION IS NORMALLY REQUIRED. WHERE SPLASHING IS POSSIBLE, WEAR SAFETY GLASSES WITH SIDE SHIELDS.

OTHER PROTECTIVE EQUIPMENT:

NO SPECIAL PROTECTIVE CLOTHING IS NORMALLY REQUIRED. SELECT PROTECTIVE CLOTHING DEPENDING ON INDUSTRIAL OPERATIONS.

USE MECHANICAL VENTILATION EQUIPMENT THAT IS EXPLOSION-PROOF.

9. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT:	90-437 F
MELTING POINT:	NO DATA AVAILABLE
SPECIFIC GRAVITY (H2O=1):	0.70-0.77
PACKING DENSITY (KG/M3):	NO DATA AVAILABLE
% SOLUBILITY IN WATER:	NEGLIGIBLE
VAPOR DENSITY (AIR=1):	3-4
VAPOR PRESSURE:	403-776 MMHG @ 100 F
PH INFORMATION:	NO DATA AVAILABLE
% VOLATILES BY VOL:	100%
EVAPORATION RATE:	NO DATA AVAILABLE
APPEARANCE:	CLEAR OR COLORED LIQUID
ODOR:	STRONG HYDROCARBON
ODOR THRESHOLD (PPM):	0.25 PPM

ADDITIONAL PROPERTIES:

DENSITY: 5.9-6.3 LBS/GALLON
AVERAGE MOLECULAR WEIGHT: 100



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10. STABILITY AND REACTIVITY

STABILITY:

THE MATERIAL IS STABLE AT 70 F, 760 MM PRESSURE.

CONDITIONS TO AVOID:

EXCESSIVE HEAT, SOURCES OF IGNITION.

HAZARDOUS DECOMPOSITION PRODUCTS:

CARBON MONOXIDE, ALDEHYDES, AROMATIC HYDROCARBONS.

INCOMPATIBLE MATERIALS:

STRONG OXIDIZING AGENTS SUCH AS CHLORATES, NITRATES, PEROXIDES.

HAZARDOUS POLYMERIZATION:

WILL NOT OCCUR.

CONDITIONS TO AVOID:

NO DATA AVAILABLE.

ADDITIONAL COMMENTS:

NO DATA AVAILABLE.



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11. TOXICOLOGICAL INFORMATION

ANIMAL STUDIES:

LIFETIME INHALATION STUDIES WITH FULL VAPORIZED GASOLINE (67, 292 AND 2,056 PPM) PRODUCED KIDNEY DAMAGE AND KIDNEY TUMORS IN MALE RATS BUT NOT IN FEMALE RATS OR MALE AND FEMALE MICE. FEMALE MICE DEVELOPED A SLIGHTLY HIGHER INCIDENCE OF LIVER TUMORS COMPARED TO CONTROLS AT THE HIGHEST EXPOSURE LEVEL. RESULTS FROM SEPARATE STUDIES WITH COMPOUNDS PRODUCING SIMILAR EFFECTS, I.E., 1,4-DICHLOROBENZENE AND PERCHLOROETHYLENE, HAVE SHOWN THAT THE KIDNEY DAMAGE AND KIDNEY TUMORS DEVELOP VIA THE FORMATION OF ALPHA-2U-GLOBULIN, A MECHANISM UNIQUE TO THE MALE RAT. HUMANS DO NOT FORM ALPHA-2U-GLOBULIN, THEREFORE, TUMORS RESULTING FROM THIS MECHANISM ARE NOT RELEVANT IN HUMANS. THE BIOLOGIC SIGNIFICANCE OF THE MOUSE LIVER TUMOR RESPONSE WITH REGARD TO HUMAN HEALTH RISK IS QUESTIONABLE.

GASOLINE ENGINE EXHAUST ANIMAL STUDIES:

COMBUSTION OF GASOLINE PRODUCES GASES AND PARTICULATES WHICH INCLUDE CARBON MONOXIDE, CARBON DIOXIDE, OXIDES OF NITROGEN AND/OR SULFUR AND HYDROCARBONS. EXPOSURE TO HIGH CONCENTRATIONS OF CARBON MONOXIDE (CO) CAN CAUSE HYPOXIA VIA THE FORMATION OF CARBOXYHEMOGLOBIN. OVEREXPOSURE TO CO CAN CAUSE HEADACHE, NAUSEA, NERVOUS SYSTEM DEPRESSION, COMA AND DEATH. CHRONIC INHALATION STUDIES OF GASOLINE ENGINE EXHAUST IN MICE, RATS AND HAMSTERS DID NOT PRODUCE ANY CARCINOGENIC EFFECTS. CONDENSATES/EXTRACTS OF GASOLINE ENGINE EXHAUST PRODUCED AN INCREASE IN TUMORS COMPARED TO CONTROLS WHEN TESTING BY SKIN PAINTING, SUBCUTANEOUS INJECTION, INTRATRACHEAL INSTILLATION OR IMPLANTATION INTO THE LUNGS.

SUMMARY OF HEALTH EFFECT DATA ON GASOLINE COMPONENTS:

THIS PRODUCT CONTAINS BENZENE AT A LEVEL OF >0.1%. REPEATED OR PROLONGED EXPOSURE TO BENZENE AT CONCENTRATIONS IN EXCESS OF THE TLV MAY CAUSE SERIOUS INJURY TO BLOOD-FORMING ORGANS. SIGNIFICANT CHRONIC EXPOSURE TO BENZENE VAPOR HAS BEEN REPORTED TO PRODUCE VARIOUS BLOOD DISORDERS RANGING FROM ANEMIA TO CANCER (DIFFERENT FORMS OF LEUKEMIA) IN MAN. BENZENE PRODUCED TUMORS IN RATS AND MICE IN LIFETIME CHRONIC TOXICITY STUDIES, BUT THE RESPONSE HAS NOT BEEN CONSISTENT ACROSS SPECIES, STRAIN, SEX OR ROUTE OF EXPOSURE. ANIMAL STUDIES ON BENZENE HAVE DEMONSTRATED IMMUNE TOXICITY, CHROMOSOMAL ABERRATIONS, TESTICULAR EFFECTS AND ALTERATIONS IN REPRODUCTIVE CYCLES AND EMBRYO/FETOTOXICITY, BUT NOT TERATOGENICITY.

COMPONENTS OF GASOLINE DO NOT PRESENT A SIGNIFICANT HEALTH RISK IN THE CONCENTRATIONS PRESENT IN GASOLINE AT EXPOSURES NOT EXCEEDING THE EXPOSURE LIMITS STATED IN SECTION 2.



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12. ECOLOGICAL INFORMATION

PRODUCT CAN CAUSE FOULING OF SHORELINES AND IS HARMFUL TO AQUATIC LIFE IN LOW CONCENTRATIONS. THERE IS NO POTENTIAL FOR ACCUMULATION IN THE FOOD CHAIN.

FRESHWATER TOXICITY:

BLUEGILL: LC50 IS 8 PPM @ 96 HOURS
JUVENILE SHAD: TLM IS 90 PPM @ 24 HOURS

SALTWATER TOXICITY:

MULLET: LC50 IS 2 PPM @ 96 HOURS
GRASS SHRIMP: LC50 IS 1.5 PPM @ 96 HOURS
MENHADEN: LC50 IS 2 PPM @ 96 HOURS
JUVENILE SHAD: TLM IS 91 PPM @ 24 HOURS

13. DISPOSAL CONSIDERATIONS

THIS MATERIAL AS SUPPLIED IS NOT SPECIFICALLY LISTED AS AN EPA RCRA HAZARDOUS WASTE ACCORDING TO FEDERAL REGULATIONS (40 CFR 261-271). HOWEVER, WHEN DISCARDED OR DISPOSED OF, IT MAY MEET THE CRITERIA OF AN "IGNITABLE" HAZARDOUS WASTE. THIS PRODUCT COULD ALSO CONTAIN BENZENE AT >0.5 PPM AND COULD EXHIBIT THE CHARACTERISTICS OF "TOXICITY" AS DETERMINED BY THE TOXICITY LEACHING PROCEDURE (TCLP). THIS MATERIAL COULD ALSO BECOME A HAZARDOUS WASTE IF MIXED OR CONTAMINATED WITH A LISTED HAZARDOUS WASTE. IT IS THE RESPONSIBILITY OF THE USER TO DETERMINE IF DISPOSAL MATERIAL IS HAZARDOUS ACCORDING TO FEDERAL, STATE AND LOCAL REGULATIONS.

14. TRANSPORTATION INFORMATION

49 CFR 172.101:

PROPER SHIPPING NAME: GASOLINE
DOT CLASSIFICATION: 3
DOT IDENTIFICATION NUMBER: UN 1203
PACKING GROUP: PG II



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15. REGULATORY INFORMATION

THE FOLLOWING REGULATIONS APPLY TO THIS PRODUCT:

OSHA HAZARD COMMUNICATION (29 CFR 1910.1200):

THIS PRODUCT HAS BEEN EVALUATED AND DETERMINED TO BE HAZARDOUS AS DEFINED IN OSHA'S HAZARD COMMUNICATION STANDARD.

EPA TOXIC SUBSTANCES CONTROL ACT (40 CFR PART 710):

THIS PRODUCT AND/OR ITS COMPONENTS ARE LISTED ON THE TSCA INVENTORY.

EPA SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986) - SECTIONS 302, 304, 311, 312 AND 313.

SECTION 302 - EXTREMELY HAZARDOUS SUBSTANCES (40 CFR PART 355): NONE.

SECTION 304 - EMERGENCY RELEASE NOTIFICATIONS (40 CFR PART 355): NONE.

SECTIONS 311 AND 312 - MATERIAL SAFETY DATA SHEET REQUIREMENTS (40 CFR PART 370):

THE FOLLOWING EPA HAZARD CATEGORIES APPLY TO THIS PRODUCT:

- IMMEDIATE (ACUTE) HEALTH HAZARD
- DELAYED (CHRONIC) HEALTH HAZARD
- FIRE HAZARD

MSDS'S OR A LIST OF MSDS'S AND THEIR HAZARDS (SEE EPA HAZARD CATEGORIES ABOVE) MAY BE REQUIRED TO BE SUBMITTED TO THE STATE EMERGENCY RESPONSE COMMISSION (SERC), LOCAL EMERGENCY PLANNING COMMITTEE (LEPC) AND LOCAL FIRE DEPARTMENT (LFD) PER SECTION 311 REQUIREMENTS.

PER SECTION 312 REQUIREMENTS, A TIER II OR TIER I FORM MAY BE REQUIRED TO BE SUBMITTED ANNUALLY TO THE SERC, LEPC AND LFD IF APPLICABLE THRESHOLD REPORTING QUANTITIES ARE EXCEEDED. CURRENT FEDERAL THRESHOLDS ARE:

- 10,000 POUNDS OR MORE OF AN OSHA HAZARDOUS SUBSTANCE
- OR
- 500 POUNDS OR THE THRESHOLD PLANNING QUANTITY, WHICHEVER IS LESS, OF AN EXTREMELY HAZARDOUS SUBSTANCE.

NOTE: THRESHOLDS MAY VARY ACCORDING TO LOCAL AND STATE REGULATIONS.

SECTION 313 - TOXIC CHEMICAL RELEASE REPORTING (40 CFR PART 372):

THIS PRODUCT CONTAINS THE FOLLOWING COMPONENT(S) (AT A LEVEL OF 1% OR GREATER IF HAZARDOUS; 0.1% OR GREATER IF CARCINOGENIC) THAT IS/ARE IDENTIFIED ON THE SECTION 313 TOXIC CHEMICAL LIST:

---COMPONENT---	---CAS NUMBER---
BENZENE	71-43-2
ETHYL BENZENE	100-41-4
1,2,4-TRIMETHYLBENZENE (PSEUDOCUMENE)	95-63-6
TOLUENE	108-88-3
XYLENE	1330-20-7



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16. OTHER INFORMATION

NFPA CLASSIFICATION

HEALTH: 1
FIRE: 3
REACTIVITY: 0
OTHER: -

HMIS CLASSIFICATION

HEALTH: 1
FIRE: 3
REACTIVITY: 0
PERSONAL PROTECTION: *

HAZARD RATING

0 - LEAST
1 - SLIGHT
2 - MODERATE
3 - HIGH
4 - EXTREME

COMMENTS:

* SEE SECTION 8 FOR GUIDANCE IN SELECTION OF PERSONAL PROTECTIVE EQUIPMENT.

*** DISCLAIMER ***

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