

MSDS Data

ARCO UNLEADED GASOLINE

PC00306

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**Cherry Point Information**

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ARCO Hazard Rating:

Health	Fire	Reactive
3	3	0

4-Extreme, 3-High, 2-Moderate,  
1-Slight, 0-No Significant Hazard

ARCO Hazard Warning:

Carcinogen (H)  
 CNS Depressant  
 Contains Benzene  
 Flammable  
 Irritant  
 Kidney Toxin  
 Liver Toxin  
 Reproductive (M, F, D)  
 Skin Absorber

Nickname(s):

Clear Gasoline  
 Reformulated Blending Component (RBC)

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**Cherry Point Refinery Personal Protective Equipment (PPE)**

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Work area should be flagged to identify the presence of benzene when equipment is opened.

Machinist Field Work: When opening pump case of benzene containing streams, wear an organic vapor respirator and neoprene or nitrile gloves. If the work may cause liquids to spray, use chemical resistant gear. If pump has been flushed with non-benzene liquid and monitored to show that no benzene is present, a respirator is not required.

Machinist Shop Work: For disassembly work in the shop, use disposable nitrile gloves if liquid contamination is present on pump parts.

DOT Information:

Shipping Name: Gasoline  
 Hazard Class: 3, PG II  
 UN/NA#: UN 1203

\*\*\* End of Cherry Point Information \*\*\*

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**GENERAL INFORMATION (PROD & CO ID)**

DATE: 9806 CP

MSDS NO.: APPC306 VER. 5  
 REV. DATE: 06/24/1998

IMPORTANT: READ THIS MSDS BEFORE HANDLING AND DISPOSING OF THIS PRODUCT AND PASS THIS INFORMATION ON TO EMPLOYEES, CUSTOMERS, AND USERS OF THIS PRODUCT.

MATERIAL IDENTITY: ARCO UNLEADED GASOLINE  
 TRADE NAME(S): ARCO UNLEADED GASOLINE  
 OTHER NAME(S): ARCO CLEAR GASOLINE, UNLEADED MOTOR VEHICLE GASOLINE, UNLEADED REGULAR GASOLINE, OR PETROL

CHEMICAL DESCRIPTION: PETROLEUM HYDROCARBONS

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MANUFACTURER'S ADDRESS: ARCO PRODUCTS COMPANY  
DIVISION OF ATLANTIC RICHFIELD COMPANY  
333 SOUTH HOPE STREET  
LOS ANGELES, CALIFORNIA 90071

TELEPHONE NUMBERS: EMERGENCY  
800-424-9300 CHEMTREC  
CUSTOMER SERVICE  
800-322-2726 INFO ONLY

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HEALTH & FIRST AID (HAZARD IDENTIFICATION)

IMMEDIATE HAZARDS

DANGER: HIGHLY FLAMMABLE! OSHA/NFPA CLASS IB FLAMMABLE LIQUID. KEEP AWAY FROM HEAT, SPARKS, AND OPEN FLAME.

NEVER SIPHON GAS BY MOUTH. HARMFUL IF SWALLOWED. CONTAINS PETROLEUM DISTILLATES. IF SWALLOWED, DO NOT INDUCE VOMITING SINCE ASPIRATION INTO THE LUNGS MAY CAUSE CHEMICAL PNEUMONIA. OBTAIN PROMPT MEDICAL ATTENTION.

PROLONGED OR REPEATED LIQUID CONTACT MAY CAUSE IRRITATION. HIGH VAPOR CONCENTRATIONS (GREATER THAN 1000 PPM) MAY CAUSE IRRITATION TO EYES AND RESPIRATORY SYSTEM AND MAY CAUSE DIZZINESS AND OTHER NERVOUS SYSTEM EFFECTS.

GENERALLY, HUMAN EXPOSURES TO GASOLINE ARE CONSIDERABLY LOWER THAN LEVELS WHICH HAVE CAUSED ADVERSE HEALTH EFFECTS IN ANIMAL STUDIES OR HUMAN CASE STUDIES OF GASOLINE MISUSE OR ABUSE (SUCH AS GASOLINE SNIFFING). ADVERSE HEALTH EFFECTS ARE NOT EXPECTED TO OCCUR AT EXPOSURE LEVELS TYPICALLY ENCOUNTERED IN THE USE OF GASOLINE AS A MOTOR FUEL.

AVOID BREATHING VAPORS OR MISTS. USE ONLY WITH ADEQUATE VENTILATION. USE AS A MOTOR FUEL ONLY. DO NOT USE AS A CLEANING SOLVENT, THINNER OR FOR OTHER NON-MOTOR FUEL USE.

ACUTE HEALTH HAZARDS

ROUTES OF EXPOSURE / SIGNS AND SYMPTOMS

INHALATION (PRIMARY): HIGH CONCENTRATIONS (GREATER THAN 1000 PPM) OF VAPORS OR MISTS FROM THIS MATERIAL CAN CAUSE IRRITATION OF THE NOSE, THROAT, AND LUNGS, HEADACHE, DIZZINESS, DROWSINESS, LOSS OF COORDINATION, FATIGUE, NAUSEA AND LABORED BREATHING.

EYE CONTACT: MAY CAUSE SOME TRANSITORY EYE IRRITATION BUT NOT EXPECTED TO CAUSE PROLONGED OR SIGNIFICANT EYE IRRITATION.

SKIN CONTACT: HIGH CONCENTRATIONS (GREATER THAN 1000 PPM) OF VAPORS OR MISTS FROM THIS MATERIAL CAN CAUSE IRRITATION OF THE NOSE, THROAT, AND LUNGS, HEADACHE, DIZZINESS, DROWSINESS, LOSS OF COORDINATION, FATIGUE, NAUSEA AND LABORED BREATHING. (SEE SUMMARY OF CHRONIC HAZARDS.)

INGESTION: MAY CAUSE IRRITATION OF THE MOUTH, THROAT AND GASTROINTESTINAL TRACT LEADING TO NAUSEA, VOMITING, DIARRHEA, AND RESTLESSNESS. MAY CAUSE HEADACHE, DIZZINESS, DROWSINESS, LOSS OF COORDINATION, FATIGUE, NAUSEA AND LABORED BREATHING.

ASPIRATION HAZARD: THIS MATERIAL CAN ENTER THE LUNGS DURING SWALLOWING OR VOMITING AND MAY CAUSE LUNG INFLAMMATION AND DAMAGE WHICH IN SEVERE CASES MAY BE FATAL.

SUMMARY OF CHRONIC HAZARDS AND SPECIAL HEALTH EFFECTS: PERSONNEL WITH PREEXISTING CENTRAL NERVOUS SYSTEM DISEASE, SKIN DISORDERS, OR CHRONIC

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RESPIRATORY DISEASES SHOULD BE EVALUATED BY AN APPROPRIATE HEALTH PROFESSIONAL BEFORE OCCUPATIONAL EXPOSURE TO THIS MATERIAL.

PROLONGED/REPEATED SKIN EXPOSURE, INHALATION OF HIGH VAPOR CONCENTRATIONS OR INGESTION OF THIS MATERIAL MAY RESULT IN ADVERSE DERMAL OR SYSTEMIC EFFECTS. AVOID PROLONGED OR REPEATED EXPOSURE OR HIGH VAPOR CONCENTRATIONS.

CONTAINS BENZENE, A CHEMICAL KNOWN TO CAUSE CANCER IN HUMANS. REPEATED AND PROLONGED EXPOSURE TO BENZENE VAPORS MAY CAUSE LEUKEMIA, APLASTIC ANEMIA, OR OTHER BLOOD DISORDERS, IMMUNOTOXICITY, REPRODUCTIVE HARM OR FETAL TOXICITY.

GENERALLY, HUMAN EXPOSURES TO GASOLINE ARE CONSIDERABLY LOWER THAN LEVELS WHICH HAVE CAUSED ADVERSE HEALTH EFFECTS IN ANIMAL STUDIES OR HUMAN CASE STUDIES OF GASOLINE MISUSE OR ABUSE (SUCH AS GASOLINE SNIFFING). ADVERSE HEALTH EFFECTS ARE NOT EXPECTED TO OCCUR AT EXPOSURE LEVELS TYPICALLY ENCOUNTERED IN THE USE OF GASOLINE AS A MOTOR FUEL.

SEE TOXICOLOGICAL INFORMATION SECTION FOR ADDITIONAL TOXICOLOGICAL INFORMATION.

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**HEALTH & FIRST AID (EMERGENCY & FIRST AID)**

INHALATION: IMMEDIATELY MOVE PERSONNEL TO AREA WITH FRESH AIR. FOR RESPIRATORY DISTRESS, GIVE OXYGEN, RESCUE BREATHING OR ADMINISTER CPR (CARDIOPULMONARY RESUSCITATION). OBTAIN PROMPT MEDICAL ATTENTION.

EYE CONTACT: FLUSH CLEAN LOW-PRESSURE WATER FOR AT LEAST 15 MINUTES, OCCASIONALLY LIFTING THE EYELIDS. IF PAIN OR REDNESS IS PRESENT AFTER FLUSHING, OBTAIN MEDICAL ATTENTION.

SKIN CONTACT: IMMEDIATELY REMOVE CONTAMINATED CLOTHING. WASH AFFECTED SKIN THOROUGHLY WITH SOAP AND WATER. IF IRRITATION PERSISTS, OBTAIN MEDICAL ATTENTION.

INGESTION: DO NOT INDUCE VOMITING. OBTAIN PROMPT MEDICAL ATTENTION.  
ASPIRATION HAZARD: THIS MATERIAL CAN ENTER THE LUNGS DURING SWALLOWING OR VOMITING AND MAY CAUSE LUNG INFLAMMATION AND DAMAGE.

EMERGENCY MEDICAL TREATMENT PROCEDURES: SEE ABOVE PROCEDURES.

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**TOXICOLOGICAL INFORMATION**

THE INFORMATION FOUND IN THIS SECTION IS WRITTEN FOR MEDICAL, TOXICOLOGY, OCCUPATIONAL HEALTH AND SAFETY PROFESSIONALS. THIS SECTION PROVIDES TECHNICAL INFORMATION ON THE TOXICITY TESTING OF THIS OR SIMILAR MATERIALS OR ITS COMPONENTS. IF CLARIFICATION OF THE TECHNICAL CONTENT IS NEEDED, CONSULT A PROFESSIONAL IN THE AREAS OF EXPERTISE LISTED ABOVE.

INHALATION: TOXICITY STUDIES ON THIS MATERIAL RESULTED IN LC50 VALUES GREATER THAN 5.2 MG/L INDICATING A LOW POTENCY.

EYE CONTACT: MINIMAL TO NO IRRITATION IN ANIMAL STUDIES.

SKIN CONTACT: ANIMAL STUDIES RESULTED IN MODERATE SKIN IRRITATION FOLLOWING SHORT TERM OR PROLONGED/REPEATED EXPOSURE. THE ACUTE DERMAL TOXICITY TESTS INDICATE LD50 VALUES GREATER THAN 2.0 G/KG INDICATING A LOW POTENCY. EXPOSURE TO SUNLIGHT DOES NOT INCREASE SKIN IRRITATION. THIS MATERIAL APPEARS TO BE NON-SENSITIZING.

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INGESTION: THE ACUTE ORAL TOXICITY TESTS PRODUCED LD50 VALUES GREATER THAN 5 G/KG INDICATING A LOW POTENCY. THERE WERE SIGNS OF GASTROINTESTINAL TRACT IRRITATION AND CENTRAL NERVOUS SYSTEM DEPRESSION.

PROLONGED/REPEATED EXPOSURES: TWENTY EIGHT DAY DERMAL TOXICITY STUDIES RESULTED IN MODERATE SKIN IRRITATION, INCREASED LIVER WEIGHTS AND INCREASED SGOT BUT NO SIGNIFICANT SYSTEMIC TISSUE CHANGES CHARACTERISTIC OF DISEASE. NINETY DAY DERMAL TOXICITY STUDIES RESULTED IN MODERATE SKIN IRRITATION AND NO OTHER SIGNIFICANT OBSERVATIONS OR SYSTEMIC TISSUE CHANGES CHARACTERISTIC OF DISEASE. TWENTY EIGHT DAY INHALATION TOXICITY STUDY RESULTED IN KIDNEY DAMAGE IN MALE RATS.

A TWO-YEAR INHALATION STUDY WITH A GENERIC UNLEADED GASOLINE FORMULATED BY THE AMERICAN PETROLEUM INSTITUTE CAUSED KIDNEY DAMAGE AND KIDNEY TUMORS IN MALE RATS AND LIVER TUMORS IN FEMALE MICE. THESE EFFECTS ARE CONSIDERED SPECIFIC TO THESE LABORATORY ANIMALS AND NOT APPLICABLE TO HUMANS.

CONTAINS BENZENE, A CHEMICAL KNOWN TO CAUSE CANCER IN HUMANS. REPEATED AND PROLONGED EXPOSURE TO BENZENE VAPORS MAY CAUSE ADVERSE EFFECTS ON THE CENTRAL NERVOUS SYSTEM, DISEASES OF THE BLOOD FORMING ORGANS, SUCH AS LEUKEMIA, AND ADVERSE EFFECTS ON THE IMMUNE SYSTEM. IN ANIMAL STUDIES AND IN WORKERS WITH CHRONIC BENZENE POISONING, ALTERATIONS IN STRUCTURE OF CHROMOSOMES IN BONE MARROW AND WHITE BLOOD CELLS HAVE BEEN OBSERVED. STUDIES WITH LABORATORY ANIMALS INDICATE THAT EXPOSURE TO HIGH LEVELS OF BENZENE VAPOR MAY CAUSE REPRODUCTIVE EFFECTS AND ADVERSE EFFECTS ON OFFSPRING OF PREGNANT ANIMALS. EXPOSURE TO OTHER COMPONENTS OF GASOLINE SUCH AS BENZENE, TOLUENE, XYLENE, ETHYLBENZENE, TRIMETHYLBENZENE, AND N-HEXANE HAVE ALSO BEEN SHOWN TO AFFECT REPRODUCTIVE CAPACITY AND/OR FETAL DEVELOPMENT IN LABORATORY ANIMALS. THE EXACT RELATIONSHIP BETWEEN THESE EFFECTS AND HUMANS IS NOT KNOWN. EXPOSURE TO N-HEXANE AT CONCENTRATIONS CONSIDERABLY HIGHER THAN THE CURRENT PERMISSIBLE EXPOSURE LIMIT HAS REPORTEDLY BEEN ASSOCIATED WITH PERIPHERAL NEUROPATHY. STUDIES WITH LABORATORY ANIMALS (DOGS) INDICATE THAT EXPOSURE TO EXTREMELY HIGH CONCENTRATIONS OF GASOLINE (GREATER THAN 50,000 PPM) MAY CAUSE IRREGULAR HEARTBEATS AND SUDDEN DEATH.

ADDITIONAL MTBE TOXICITY INFORMATION: MTBE AT VERY HIGH EXPOSURE LEVELS (8000 PPM) DID INCLUDE DEVELOPMENTAL TOXICITY IN MICE, BUT ONLY AT LEVELS WHERE THERE WAS ALSO MATERNAL TOXICITY. IN RABBITS EXPOSED TO THE SAME MTBE LEVELS, THERE WERE NO INDICATORS OF ANY EFFECTS ON THE OFFSPRING, EVEN IN THE PRESENCE OF MATERNAL TOXICITY. THE ABNORMAL FINDINGS IN THE MICE (CLEFT PALATE, ETC.) ARE WELL-RECOGNIZED EFFECTS OF STRESS IN THE PREGNANT MOUSE AND HAVE NO CORRELATION WITH DEVELOPMENT HAZARDS IN HUMANS.

CHRONIC TOXICITY STUDIES HAVE BEEN COMPLETED FOR MTBE. IN THESE STUDIES, B6C3FL MICE AND F344 RATS WERE EXPOSED TO 400, 3000, OR 8000 PPM MTBE VAPORS, 6 HRS/DAY, 5 DAYS/WEEK FOR LIFE. FEW ADVERSE EFFECTS WERE NOTED FOR EITHER RATS OR MICE.

MALE AND FEMALE MICE EXPOSED TO 8000 PPM MTBE VAPORS DEVELOPED A SLIGHTLY HIGHER INCIDENCE OF BENIGN LIVER TUMORS DURING THEIR LIFETIME. NO OTHER ADVERSE EFFECTS OR INCREASES IN TUMOR INCIDENCES WERE FOUND.

MALE AND FEMALE RATS EXPOSED TO HIGH CONCENTRATIONS OF MTBE VAPORS DEVELOPED AN INCREASING INCIDENCE OF CHRONIC PROGRESSIVE KIDNEY DAMAGE, AN EFFECT TYPICALLY NOTED IN AGING RATS. THESE EFFECTS WERE MOST SEVERE IN 3000 AND 8000 PPM EXPOSURE GROUPS AND WERE ACCOMPANIED BY AN INCREASED INCIDENCE OF KIDNEY TUMORS (MALES ONLY). THESE FINDINGS ARE CONSISTENT WITH KIDNEY DAMAGE ASSOCIATED WITH ACCUMULATION OF PROTEIN IN CELLS, AN EFFECT WHICH MAY BE UNIQUE TO THE MALE RAT. BENIGN TESTICULAR TUMORS WERE NUMERICALLY INCREASED

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IN HIGH DOSE MTBE MALE RATS, BUT THIS IS AN AGE-RELATED LESION WHICH TYPICALLY OCCURS IN A VERY HIGH PROPORTION OF CONTROL UNTREATED RATS.

MTBE DOES NOT APPEAR TO BE A MUTAGEN.

ALL OF THESE EFFECTS EITHER OCCUR IN TISSUES PRONE TO THE DEVELOPMENT OF TUMORS OR MAY OCCUR BY A MECHANISM NOT CONSIDERED RELEVANT TO HUMANS. THE SIGNIFICANCE OF THESE FINDINGS FOR HUMAN HEALTH HAZARDS ESTIMATION IS UNCLEAR.

## COMPOSITION &amp; EXPOSURE LIMITS (COMPONENTS &amp; EXP LIMITS)

% COMPOSITION PEL3 EL UNITS	ACGIH TYPE	OSHA	EXPOSURE LIMITS				TLV
			ARCOCOMPONENT1 EQ	CAS NO.	BY VOLUME2		
GASOLINE (2) (4) STEL		8006-61-9	100	500	500	N/AP	PPM
			300	300	N/AP	PPM	TWA
WHICH CONTAINS:							
BENZENE (1) (2) (3) 71-43-2	AP 1 TO 5		2.5 0.5	5 1	N/AP 1	PPM PPM	STEL TWA
CYCLOHEXANE 110-82-7	LT 2		300	300	N/AP	PPM	TWA
ETHYLBENZENE 100-41-4	AP 1 TO 3		125 100	125 100	N/AP N/AP	PPM PPM	STEL TWA
HEXANE (N-HEXANE) 110-54-3	AP 2 TO 5		50	50	N/AP	PPM	TWA
TOLUENE 108-88-3	AP 7 TO 14		N/AP 50	150 100	N/AP N/AP	PPM PPM	STEL TWA
TRIMETHYL BENZENE (ALL ISOMERS) 25551-13-7	LT 5		25	25	N/AP	PPM	TWA
1,2,4-TRIMETHYLBENZENE 95-63-6	AP 1 TO 4		25	25	N/AP	PPM	TWA
2,2,4 TRIMETHYLPENTANE 540-84-1	AP 3 TO 10		N/AP	N/AP	N/AP		
XYLENE 1330-20-7	AP 8 TO 15		150 100	150 100	N/AP N/AP	PPM PPM	STEL TWA
WHICH MAY CONTAIN:							
ETHANOL 64-17-5	AP 0 TO 10		1000	1000	N/AP	PPM	TWA
METHYL TERTIARY BUTYL ETHER (MTBE) 1634-04-4	AP 0 TO 15		40	N/AP	N/AP	PPM	TWA

1 CARCINOGEN DISPLAYED AFTER COMPONENT NAME. LISTED BY (1) NTP, (2) IARC, (3) OSHA, (4) OTHER.

2 SEE ABBREVIATIONS ON LAST PAGE

3 THE OSHA EXPOSURE LIMITS WERE CHANGED IN 1993 DUE TO A FEDERAL COURT RULING. ARCO HAS CHOSEN TO LIST THE 1989 OSHA EXPOSURE LIMITS IN THIS DOCUMENT AS THEY ARE GENERALLY MORE STRINGENT AND THEREFORE MORE PROTECTIVE THAN THE CURRENT EXPOSURE LIMITS. (REFER TO 29 CFR 1910.1000).

## FIRE &amp; EXPLOSION HAZARD DATA (FIRE &amp; EXPLOSION)

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FLASH POINT (METHOD)\*: AP 45 F (D-56)  
AUTOIGNITION TEMPERATURE (METHOD)\*: GT 600 F (E-659)  
FLAMMABLE LIMITS (% VOL. IN AIR)\*: LOWER: AP 1.4  
UPPER: AP 7.6

\*AT NORMAL ATMOSPHERIC TEMPERATURE AND PRESSURE

NEPA HAZARD RATING: HEALTH: 1 = SLIGHT  
FIRE: 3 = HIGH  
REACTIVITY: 0 = INSIGNIFICANT  
SPECIAL: = ---

FIRE AND EXPLOSION HAZARDS: HIGHLY FLAMMABLE! VAPORIZES EASILY AT NORMAL AND BELOW NORMAL TEMPERATURES. WHEN MIXED WITH AIR IN CERTAIN PROPORTIONS AND EXPOSED TO AN IGNITION SOURCE, THESE VAPORS CAN BURN IN THE OPEN OR EXPLODE IN CONFINED SPACES. BEING HEAVIER THAN AIR, FLAMMABLE VAPORS MAY TRAVEL LONG DISTANCES ALONG THE GROUND BEFORE REACHING A POINT OF IGNITION AND FLASHING BACK.

MAY ACCUMULATE STATIC ELECTRICITY.

LIQUID FLOATS ON WATER AND MAY TRAVEL TO A SOURCE OF IGNITION AND SPREAD FIRE.

"EMPTY" CONTAINERS RETAIN LIQUID AND VAPOR RESIDUES AND, IF EXPOSED TO SOURCE OF IGNITION, MAY EXPLODE.

FOR DETERMINING NATIONAL ELECTRICAL CODE (NEC) HAZARDOUS (CLASSIFIED) LOCATION REQUIREMENTS FOR ELECTRICAL INSTALLATIONS, CONSIDER THIS MATERIAL CLASS 1, GROUP D.

EXTINGUISHING MEDIA: FOAM, WATER FOG, CO2, DRY CHEMICAL  
CONSULT FOAM MANUFACTURER FOR APPROPRIATE MEDIA, APPLICATION RATES AND WATER/FOAM RATIOS. WATER AND WATER SPRAY MAY COOL THE FIRE BUT MAY NOT EXTINGUISH THE FIRE.

SPECIAL FIREFIGHTING PROCEDURES: FOR FIRES INVOLVING THIS MATERIAL, DO NOT ENTER ANY ENCLOSED OR CONFINED FIRE SPACE WITHOUT PROPER PROTECTIVE EQUIPMENT. THIS MAY INCLUDE SELF-CONTAINED BREATHING APPARATUS TO PROTECT AGAINST THE HAZARDOUS EFFECTS OF COMBUSTION PRODUCTS AND OXYGEN DEFICIENCIES. IF FIREFIGHTERS CANNOT WORK UPWIND TO THE FIRE, RESPIRATORY PROTECTIVE EQUIPMENT MUST BE WORN. COOL TANKS AND CONTAINERS EXPOSED TO FIRE WITH WATER.

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FIRE & EXPLOSION HAZARD DATA (STABILITY & REACTIVITY)

STABILITY: STABLE  
HAZARDOUS POLYMERIZATION: NOT EXPECTED TO OCCUR.  
OTHER CHEMICAL REACTIVITY: REACTS WITH OXIDIZING MATERIALS.

CONDITIONS TO AVOID: HEAT, SPARKS, AND OPEN FLAME, AND BUILD UP OF STATIC ELECTRICITY.

MATERIALS TO AVOID: HALOGENS, STRONG ACIDS, ALKALIS AND OXIDIZERS.  
HAZARDOUS OR DECOMPOSITION PRODUCTS: BURNING OR EXCESSIVE HEATING MAY PRODUCE CARBON MONOXIDE AND OTHER HARMFUL GASES/VAPORS INCLUDING OXIDES AND/OR OTHER COMPOUNDS OF SULFUR.

THE INHALATION OF COMPONENTS OF EXHAUST FROM COMBUSTED FUEL CAN BE FATAL IN

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HIGH CONCENTRATIONS IN AN ENCLOSED AREA. EXPOSURE TO EXHAUST FROM THIS FUEL SHOULD BE MINIMIZED.

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**PHYSICAL & CHEMICAL DATA (PHYSICAL & CHEMICAL PROPERTIES)**

BOILING POINT: ..... AP 35 TO 437 F  
VISCOSITY UNITS, TEMP. (METHOD): ..... N/AP  
DRY POINT: ..... AP 430 F  
FREEZING POINT: ..... N/AP  
VAPOR PRESSURE, TEMP. (METHOD): ..... AP 5-15 AT 100 F (REID-PSIA)  
VOLATILE CHARACTERISTICS: ..... APPRECIABLE  
SPECIFIC GRAVITY (H2O = 1 AT 39.2 F): .. AP 0.7 TO 0.8  
VAPOR SP. GR. (AIR=1.0 AT 60 - 90 F): .. AP 4  
SOLUBILITY IN WATER: ..... SLIGHT  
PH: ..... N/AP

APPEARANCE AND ODOR: COLORLESS TO STRAW-COLORED LIQUID; PETROLEUM NAPHTHA ODOR.

OTHER PHYSICAL AND CHEMICAL PROPERTIES: WATER IN CONTACT WITH OXYGENATED GASOLINE CAN CONTAIN UP TO 80% OXYGENATE AND HYDROCARBON MATERIALS. VAPOR PRESSURE WILL VARY SEASONALLY IN COMPLIANCE WITH INDUSTRY STANDARDS AND FEDERAL AND STATE REGULATIONS.

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**MFG. PROTECTIVE GEAR (EXP CONTROLS/PERSONAL PROTECTION)**

ENGINEERING CONTROLS: WHERE POSSIBLE, USE ADEQUATE VENTILATION TO KEEP VAPOR AND MIST CONCENTRATIONS OF THIS MATERIAL BELOW THE OCCUPATIONAL EXPOSURE LIMITS SHOWN IN COMPOSITION & EXPOSURE LIMITS (COMPONENTS & EXP LIMITS) SECTION. USE EXPLOSION PROOF VENTILATION EQUIPMENT. ELECTRICAL EQUIPMENT SHOULD COMPLY WITH NATIONAL ELECTRICAL CODE (NEC) STANDARDS (SEE FIRE & EXPLOSION HAZARD DATA (FIRE & EXPLOSION) SECTION.)

RESPIRATORY: A NIOSH/MSHA-APPROVED AIR-PURIFYING RESPIRATOR WITH AN ORGANIC VAPOR CARTRIDGE MAY BE PERMISSIBLE UNDER CERTAIN CIRCUMSTANCES WHERE AIRBORNE CONCENTRATIONS MAY EXCEED THE EXPOSURE LIMITS IN COMPOSITION & EXPOSURE LIMITS (COMPONENTS & EXP LIMITS) SECTION.

NOTE: THE PROTECTION PROVIDED BY AIR-PURIFYING RESPIRATORS IS LIMITED. USE A POSITIVE PRESSURE AIR-SUPPLIED RESPIRATOR IF THERE IS ANY POTENTIAL FOR AN UNCONTROLLED RELEASE, IF EXPOSURE LEVELS ARE NOT KNOWN, OR IF CONCENTRATIONS EXCEED THE PROTECTION LIMITS OF THE AIR-PURIFYING RESPIRATOR. CONSULT A HEALTH AND SAFETY PROFESSIONAL FOR GUIDANCE IN RESPIRATOR SELECTION. RESPIRATOR USE SHOULD COMPLY WITH OSHA 29 CFR 1910.134.

EYES: EYE PROTECTION SHOULD BE WORN. IF THERE IS POTENTIAL FOR SPLASHING OR SPRAYING, CHEMICAL PROTECTIVE GOGGLES AND/OR A FACE SHIELD SHOULD BE WORN. IF CONTACT LENSES ARE WORN, CONSULT AN EYE SPECIALIST OR A SAFETY PROFESSIONAL FOR ADDITIONAL PRECAUTIONS. SUITABLE EYE WASH WATER SHOULD BE AVAILABLE IN CASE OF EYE CONTACT WITH THIS MATERIAL.

SKIN: AVOID PROLONGED AND/OR REPEATED SKIN CONTACT. IF CONDITIONS OR FREQUENCY OF USE MAKE SIGNIFICANT CONTACT LIKELY, CLEAN AND IMPERVIOUS CLOTHING SUCH AS GLOVES, APRON, BOOTS AND FACIAL PROTECTION SHOULD BE WORN. NITRILE OR VITON PROTECTIVE CLOTHING MATERIAL IS RECOMMENDED. NON-IMPERVIOUS CLOTHING WHICH ACCIDENTALLY BECOMES CONTAMINATED WITH THIS MATERIAL SHOULD BE REMOVED PROMPTLY AND NOT REWORN UNTIL THE CLOTHING IS WASHED THOROUGHLY AND THE CONTAMINATION IS EFFECTIVELY REMOVED. DISCARD

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SOAKED LEATHER GOODS.

OTHER HYGIENIC AND WORK PRACTICES: USE GOOD PERSONAL HYGIENE PRACTICES. IN CASE OF SKIN CONTACT, WASH WITH MILD SOAP AND WATER OR A WATERLESS HAND CLEANER. WASH HANDS AND OTHER EXPOSED AREAS THOROUGHLY BEFORE EATING, DRINKING, SMOKING, OR USING TOILET FACILITIES.

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**ACCIDENTAL RELEASE MEASURES**

PRECAUTIONS IF MATERIAL IS SPILLED OR RELEASED: ELIMINATE ALL POTENTIAL SOURCES OF IGNITION. HANDLING EQUIPMENT AND TOOLS SHOULD BE GROUNDED TO PREVENT SPARKING. CONTAIN SPILL, EVACUATE NON-ESSENTIAL PERSONNEL, AND SAFELY STOP FLOW. BLANKET SPILL WITH FOAM OR USE WATER FOG TO REDUCE VAPOR CLOUD. ON HARD SURFACES, SPILLED MATERIAL MAY CREATE A SLIPPING HAZARD. EQUIP CLEANUP CREWS WITH PROPER PROTECTIVE EQUIPMENT (AS SPECIFIED IN MFG. PROTECTIVE GEAR (EXPOSURE CONTROLS/PERSONAL PROTECTION) SECTION) AND ADVISE OF HAZARDS. CLEAN UP BY RECOVERING AS MUCH SPILLED OR CONTAMINATED MATERIALS AS POSSIBLE AND PLACING INTO CLOSED CONTAINERS. CONSULT WITH AN ENVIRONMENTAL PROFESSIONAL FOR THE FEDERAL, STATE AND LOCAL CLEANUP AND REPORTING REQUIREMENTS FOR SPILLS AND RELEASES.

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**HANDLING & STORAGE**

HANDLING, STORAGE AND DECONTAMINATION PROCEDURES: STORE AND TRANSPORT IN ACCORDANCE WITH ALL APPLICABLE LAWS. KEEP AWAY FROM HEAT, SPARKS, AND OPEN FLAME! STORE SEPARATE FROM OXIDIZING MATERIALS. KEEP CONTAINERS CLOSED, PLAINLY LABELED, AND OUT OF CLOSED VEHICLES. CONTAINERS SHOULD BE ABLE TO WITHSTAND PRESSURES EXPECTED FROM WARMING OR COOLING IN STORAGE. STORE IN COOL (80 F OR BELOW) WELL-VENTILATED LOCATION. ALL ELECTRICAL EQUIPMENT IN STORAGE AND/OR HANDLING AREAS SHOULD BE INSTALLED IN ACCORDANCE WITH APPLICABLE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC). AVOID CONTACT WITH SKIN. AVOID INHALATION OF VAPORS OR MISTS. USE IN A WELL-VENTILATED AREA AWAY FROM ALL IGNITION SOURCES.

GROUND AND BOND CONTAINERS WHEN POURING/CONVEYING/TRANSFERRING MATERIAL. "EMPTY" CONTAINERS RETAIN LIQUID AND VAPOR RESIDUES AND CAN BE DANGEROUS. DO NOT PRESSURIZE, CUT, WELD, DRILL, GRIND OR EXPOSE TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION, CONTAINERS WITH ANY RESIDUE; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. KEEP OUT OF REACH OF CHILDREN!

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**ECOLOGICAL INFORMATION**

NOT AVAILABLE

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**DISPOSAL CONSIDERATIONS**

WASTE DISPOSAL METHODS: MAXIMIZE RECOVERY FOR REUSE OR RECYCLING. CONSULT ENVIRONMENTAL PROFESSIONAL TO DETERMINE IF STATE OR FEDERAL REGULATIONS WOULD CLASSIFY THIS MATERIAL AS A HAZARDOUS WASTE. USE ONLY APPROVED TRANSPORTERS, RECYCLERS, TREATMENT, STORAGE OR DISPOSAL FACILITIES. COMPLY WITH ALL FEDERAL, STATE AND LOCAL LAWS PERTAINING TO WASTE MANAGEMENT.

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**TRANSPORT INFORMATION**

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UN PROPER SHIPPING NAME: GASOLINE  
UN HAZARD CLASS: 3  
UN NUMBER: UN1203  
UN PACKING GROUP: PGII

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REGULATORY INFORMATION

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA), TITLE III  
SECTION 311/312 HAZARD CATEGORIES:

ACUTE HEALTH HAZARD  
DELAYED (CHRONIC) HEALTH HAZARD.  
FIRE HAZARD

SECTION 313:  
THIS PRODUCT CONTAINS THE FOLLOWING CHEMICALS SUBJECT TO THE REPORTING  
REQUIREMENTS ESTABLISHED BY SARA TITLE III

BENZENE  
CYCLOHEXANE  
ETHYLBENZENE  
METHYL TERT-BUTYL ETHER  
TOLUENE  
XYLENE

TOXIC SUBSTANCES CONTROL ACT (TSCA)  
ALL COMPONENTS OF THIS PRODUCT ARE LISTED ON THE TSCA INVENTORY.

COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT  
(CERCLA)  
THIS MATERIAL IS COVERED BY CERCLA'S PETROLEUM EXEMPTION.  
(REFER TO 40 CFR 307.14)

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT OF 1986 -  
PROPOSITION 65  
PROP 65 WARNING LABEL: CHEMICALS KNOWN TO THE STATE TO CAUSE CANCER, BIRTH  
DEFECTS, OR OTHER REPRODUCTIVE HARM ARE FOUND IN GASOLINE, CRUDE OIL, AND  
MANY OTHER PETROLEUM PRODUCTS AND THEIR VAPORS, OR RESULT FROM THEIR USE.  
READ AND FOLLOW LABEL DIRECTIONS AND USE CARE WHEN HANDLING OR USING ALL  
PETROLEUM PRODUCTS.

WARNING: THIS PRODUCT CONTAINS THE FOLLOWING CHEMICAL(S) LISTED BY THE STATE  
OF CALIFORNIA AS KNOWN TO CAUSE CANCER OR BIRTH DEFECTS OR OTHER  
REPRODUCTIVE HARM.

BENZENE (C) (R)  
TOLUENE (R)  
UNLEADED GASOLINE (WHOLLY VAPORIZED) (C)

OTHER PROP 65 CHEMICALS MAY RESULT FROM THE USE OF THIS MATERIAL. FOR  
EXAMPLE, BURNING FUELS PRODUCES COMBUSTION PRODUCTS INCLUDING CARBON  
MONOXIDE, A PROP 65 REPRODUCTIVE TOXIN. FURTHER EVALUATION FOR PROP 65  
COMPLIANCE MAY BE REQUIRED WHEN USING THIS MATERIAL.

(C) = CARCINOGEN  
(R) = BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM

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OTHER INFORMATION

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GENERAL COMMENTS: BECAUSE OF VOLATILITY CHARACTERISTICS, GASOLINE VAPORS MAY HAVE CONCENTRATIONS OF COMPONENTS VERY DIFFERENT FROM THOSE OF LIQUID GASOLINE. THE MAJOR COMPONENTS OF LIQUID GASOLINE VAPOR ARE: BUTANE, ISOBUTANE, PENTANE AND ISOPENTANE.

THE INFORMATION AND CONCLUSIONS HEREIN REFLECT NORMAL OPERATING CONDITIONS AND MAY BE FROM SOURCES OTHER THAN DIRECT TEST DATA ON THE MIXTURE ITSELF.

ABBREVIATIONS:

EQ = EQUAL	AP = APPROXIMATELY	N/P = NO APPLICABLE INFORMATION FOUND
LT = LESS THAN	UK = UNKNOWN	N/AP = NOT APPLICABLE
GT = GREATER THAN	TR = TRACE	N/DA = NO DATA AVAILABLE

DISCLAIMER OF LIABILITY

THE INFORMATION IN THIS MSDS WAS OBTAINED FROM SOURCES WHICH WE BELIEVE ARE RELIABLE. HOWEVER, THE INFORMATION IS PROVIDED WITHOUT ANY WARRANTY, EXPRESS OR IMPLIED, REGARDING ITS CORRECTNESS.

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