SAFETY DATA SHEET

SECTION 1 ◆ IDENTIFICATION

Explorer Pipeline Company 6120 South Yale Ave., Suite 1100 Tulsa, OK 74136	**FOR EMERGENCY SOURCE INFORMATION CONTACT:** ✦ (918) 493 - 5100	
GHS PRODUCT IDENTIFIER: Unleaded Gasoline, All Grades **EPL Code:** 22, 26, 3E, 4E, 3C, 3D, 3R, 3S, 3T, 3U, 3V, 3X, 4C, 4D, 4 F, 4G, 4H, 4J, 4K, 4M, 4S, 4T, 4U, 4X, 31-38 and 40-49	**CHEMICAL FAMILY:** Petroleum Hydrocarbon	**PRODUCT USES:** Used primarily as a fuel source for internal combustion engines.

SECTION 2 ✷ HAZARDS IDENTIFICATION

GHS CLASSIFICATIONS

Aspiration Hazard - Category 1	Carcinogenicity - Category 1A	Flammable Liquid - Category 1
Germ Cell Mutagenicity - Category 1B	Hazardous to the Aquatic Environment – Acute Hazard - Category 3	Skin Corrosion/Irritation - Category 2
Specific Target Organ Toxicity (Repeat Exposure) - Category 1 (liver, kidneys, bladder, blood, bone marrow, nervous system)	Specific Target Organ Toxicity (Single Exposure) - Category 3 (respiratory irritation, narcosis)	
Hazardous to the Aquatic Environment – Chronic Hazard - Category 2	Eye Damage/Irritation - Category 2B	Toxic to Reproduction - Category 1A

GHS LABEL ELEMENTS

Gasoline, Unleaded, All Grades

GHS PICTOGRAMS	SIGNAL WORD
   	**DANGER**

HAZARD STATEMENTS

Causes damage to organs (liver, kidneys, bladder, blood, bone marrow, nervous system) through prolonged or repeated exposure.	May be fatal if swallowed and enters airways.	
Causes skin irritation.	Harmful to aquatic life.	Extremely flammable liquid and vapor.
May damage fertility or the unborn child.	May cause drowsiness or dizziness.	
May cause genetic defects.	May cause respiratory irritation.	May cause cancer.

PRECAUTIONARY STATEMENTS

Prevention

Keep away from heat/sparks/open flames/hot surfaces. No smoking. Keep container tightly closed.	
Ground/bond container and receiving equipment.	Use only non-sparking tools.
Use explosion-proof electrical/ ventilating/ lighting/equipment.	
Take precautionary measures against static discharge.	Keep out of reach of children
Wear protective gloves/protective clothing/eye protection/face protection.	
Wash hands and forearms thoroughly after handling.	Obtain special instructions before use.
Do not breathe mist/vapors/spray.	Use only outdoors or in well-ventilated area.

Do not eat, drink or smoke when using this product.		Avoid release to the environment.	
Do not handle until all safety precautions have been read and understood.			
Response			
In case of fire: Use water spray, fog, dry chemical fire extinguishers or handheld fire extinguisher.			
IF exposed or concerned: Get medical advice/attention.			
IF ON SKIN (or hair): Wash with plenty of soap and water. Remove/Take off immediately all contaminated clothing and wash before reuse. If skin irritation occurs, get medical advice/attention.			
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison control center or doctor/physician if you feel unwell.			
Get medical advice/attention if you feel unwell.			
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do not induce vomiting.			
Storage			
Store in a well-ventilated place	Keep cool	Store locked up	Keep container tightly closed
Disposal			
Dispose of contents/container in accordance with local/regional/national/international regulations.			
SUPPLIER INFORMATION			
Explorer Pipeline Company	6120 South Yale Ave., Suite 1100	Tulsa, Oklahoma 74136	

SECTION 3 ▼ COMPOSITION/INFORMATION OF INGREDIENTS

INGREDIENT	CAS NUMBER	PERCENTAGE (%)
Gasoline	86290-81-5	60-100
Toluene	108-88-3	10-30
Xylenes (o-, m-, p- isomers)	1330-20-7	10-30
Hexane	110-54-3	5-10
Benzene	71-43-2	5-10
Trimethyl benzene	25551-13-7	1-5
1,2,4-Trimethyl benzene	95-63-6	1-5
Cumene	98-82-8	1-5
Cyclohexane	110-82-7	1-5
Ethyl benzene	100-41-4	1-5
Naphthalene	91-20-3	1-5
Styrene	100-42-5	0.1-1

SECTION 4 ✚ FIRST AID MEASURES

EYES: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower lids, Get Medical Aid.

SKIN: Quickly remove contaminated clothing and immediately flush skin with plenty of soap and water while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.

INGESTION: Do not induce vomiting. Call a physician and/or transport to an emergency facility immediately.

INHALATION: Get medical aid immediately. Remove from exposure to fresh air immediately. If not breathing, give cardiopulmonary resuscitation. If breathing is difficult, give medical oxygen.

NOTE TO PHYSICIAN: TREAT SYMPTOMATICALLY AND SUPPORTIVELY

SECTION 5 ⌘ FIRE-FIGHTING MEASURES

SEE SECTION 9 FOR FLAMMABILITY PROPERTIES

EXTREMELY FLAMMABLE! This material releases vapors at or below ambient 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.

SUITABLE EXTINGUISHING MEDIA: Water fog, dry chemical, foam, or Carbon Dioxide. Use water spray to cool nearby containers and structure exposed to fire. Water fog or spray are of value in cooling tanks and containers but may not achieve extinguishment.
HAZARDOUS REACTIONS/DECOMPOSITION: Burning or excessive heating may produce carbon monoxide and carbon dioxide, also other harmful gases/vapors including oxides and/or other compounds of chlorine, manganese, and bromine.
SPECIAL PROTECTIVE ACTIONS FOR FIREFIGHTERS: For fires involving this material, do not enter any enclosed or confined 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 of the fire, respiratory protective equipment must be worn. Cool tanks and containers exposed to fire with water. Burning liquid will float on water. Notify appropriate authorities if liquid enters sewer/waterways.

SECTION 6 ❖ ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS	ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Evacuate personnel to safe areas. Use personal protective equipment. All equipment used when handling the product must be grounded. Ensure adequate ventilation. Take precautionary measures against static discharges. Keep people away from and upwind of spill/leak. Stop leak if you can do so without risk.
METHODS FOR CONTAINMENT	A vapor suppressing foam may be used to reduce vapors. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Dike far ahead of liquid spill for later disposal.
METHODS FOR CLEANING UP	Use clean non-sparking tools to collect absorbed material. Dike far ahead of liquid spill for later disposal.
OTHER INFORMATION	Water spray may reduce vapor but may not prevent ignition in closed spaces.

SECTION 7 ✂ HANDLING AND STORAGE

Prior to working with this product workers should be trained on its proper handling and storage

PRECAUTIONS FOR SAFETY HANDLING	✦ Use only as a motor fuel. ✦ Do not siphon by mouth. ✦ Handle as a flammable liquid. ✦ Keep away from heat, sparks, and open flame! Electrical equipment should be approved for classified area. Bond and ground containers during product transfer to reduce the possibility of static-initiated fire or explosion. ✦ Special slow load procedures for "switch loading" must be followed to avoid the static ignition hazard that can exist when higher flash point material (such as fuel oil) is loaded into tanks previously containing low flash point products (such as this product) - see API Publication 2003, "Protection Against Ignitions Arising Out of Static, Lightning and Stray Currents."
STORAGE PROCEDURES	✦ Keep away from flame, sparks, excessive temperatures and open flame. Use approved vented containers. ✦ Keep containers closed and clearly labeled. Empty product containers or vessels may contain explosive vapors. Do not pressurize, cut, heat, weld or expose such containers to sources of ignition. ✦ Store in a well-ventilated area. This storage area should comply with NFPA 30 "Flammable and Combustible Liquid Code". ✦ Avoid storage near incompatible materials.
INCOMPATIBILITIES	✦ Keep away from strong oxidizers.

SECTION 8 ⌗ EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMITS

Chemical Name	ACGIH TLV (2019)	OSHA PEL	NIOSH IDLH
Toluene	TWA: 20 ppm	TWA: 200 ppm	500 ppm
Xylenes (all isomers)	TWA: 100 ppm STEL: 150 ppm	TWA: 100 ppm	900 ppm
Hexane	TWA: 50 ppm *Skin*	TWA: 500	1,100 ppm
Benzene	TWA: 0.5 ppm STEL: 2.5 ppm *Skin*	TWA: 1 ppm STEL: 5	500 ppm
Trimethyl benzene	TWA: 25 ppm	Not Applicable	Not Applicable
1,2,4-Trimethyl benzene	TWA: 25 ppm	Not Applicable	Not Applicable
Cumene	TWA: 50 ppm	TWA: 50 ppm	900 ppm
Cyclohexane	TWA: 100 ppm	TWA: 300 ppm	1,300 ppm
Ethyl benzene	TWA: 20 ppm	TWA: 100 ppm	800 ppm
Naphthalene	TWA: 10 ppm STEL: 15 ppm *Skin*	TWA: 10 ppm	250 ppm
Styrene	TWA: 20 ppm STEL: 40 ppm	TWA: 100 ppm Ceiling: 200	700 ppm

ENGINEERING CONTROLS: Use adequate ventilation to keep vapor concentrations of this product below occupational exposure limits and flammability limits, particularly in confined areas.

PERSONAL PROTECTIVE EQUIPMENT

- **EYES:** Eye protection (ANSI Z87.1 approved) should be worn whenever there is a likelihood of misting or splashing/spraying liquid. Suitable eyewash station should be available. Contact lenses must not be worn.
- **SKIN/BODY:** Chemical protective clothing is recommended based on a thorough PPE hazard assessment. Note: The resistance of specific material may vary from product to product as well as with degree of exposure. Consult manufacturer specifications for specific information.
- **HAND PROTECTION:** Gloves constructed of nitrile, neoprene, or PVC are recommended. Consult manufacturer specifications for specific information.
- **RESPIRATORY PROTECTION:** A NIOSH approved air purifying respirator (APR) with properly selected cartridges may be permissible under certain circumstances where airborne concentrations may exceed exposure limits. Protection provided by APRs is limited, calculate the maximum use concentration for the exposure situation. Use a positive pressure air supplied (Grade D) respirator if there is any potential for an uncontrolled release, exposure levels are not known or any other circumstances where APRs may not provide adequate protection.
- **OTHER HYGIENIC AND WORK PRACTICES:** Safety shower and eyewash or equivalent should be available for emergency use. Use good personal hygiene practices. In case of skin contact, wash with mild soap and water or a waterless hand cleaner. Immediately remove soaked clothing and wash thoroughly before reuse.

SECTION 9 ⚡ PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT (760 MM HG)**:** 104 °F/38 °C	**PERCENT VOLATILE BY VOLUME:** Slight - 100%
SPECIFIC GRAVITY (H_2O = 1): 0.72	**VISCOSITY UNITS, TEMP:** < 1.4 cSt @ 37.7 °C
EVAPORATION RATE (BuAc = 1): Unavailable	**VAPOR DENSITY (AIR =1):** 4
VAPOR PRESSURE AT 25°C**:** 400 mm Hg	**SOLUBILITY IN WATER:** Negligible
APPEARANCE AND ODOR: Reddish golden-brown liquid; petroleum distillates odor.	
FLASH POINT: (Method Used) -40 °F/-40 °C	**FLAMMABLE LIMITS:** LEL: 1.4% UEL: 7.6%

AUTOIGNITION TEMPERATURE: 49-850 °F / 9.4-454 °C	VOC CONTENT: 100%

SECTION 10 ¤ STABILITY AND REACTIVITY

CHEMICAL STABILITY: Stable under normal temperatures and pressures

HAZARDOUS REACTION POTENTIAL: Will not occur

CONDITIONS TO AVOID: Avoid high temperatures, open flames, sparks, welding, smoking and other ignition sources.

INCOMPATIBLE PRODUCTS: Keep away from strong oxidizers.

MATERIALS TO AVOID: Contact with nitric and sulfuric acids will form nitrocresols that can decompose violently.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide and non-combusted hydrocarbons (smoke).

HAZARDOUS POLYMERIZATION: Has not been reported

OTHER PHYSICAL AND CHEMICAL PROPERTIES: If uninhibited, gasoline will cause rusting of copper and alloys containing copper.

SECTION 11 ֍ TOXICOLOGICAL INFORMATION

GASOLINE

Aspiration of gasoline into the lungs will cause chemical pneumonia. Liquid, mist, or vapors can cause eye, skin and respiratory tract irritation and CNS depression. Mild eye irritation may result from contact with liquid, mist, and/or vapors. Liquid may penetrate skin to cause central nervous system depression. Vapor penetration can also cause systematic effects. Skin irritation or more serious disorders may occur upon prolonged and repeated contact due to skin defatting. Irritation of the mouth, throat, and gastrointestinal tract leading to nausea, vomiting, diarrhea and restlessness. CNS Depression similar to that caused by vapor inhalation. Exposure can cause irritation to the nose, throat, and lungs and signs of CNS depression (dizziness, drowsiness, loss of coordination, coma and death), depending on the concentration/duration of exposure. Long-term exposure to unleaded gasoline has also produced kidney damage in laboratory animals. The exact relationship between these results and possible human effects is not known. Persons with pre-existing skin disorders, impaired liver or kidney function, or CNS and chronic respiratory diseases should avoid exposure to this material. This material may contain benzene at concentrations above 0.1%. Benzene is considered to be a known human carcinogen by OSHA, IARC and NTP.

Toxicity

Type of Dose	Specie	Result	Type of Dose	Specie	Result	Type of Dose	Specie	Result
$LD_{50(oral)}$	Rat	Not Available	$LD_{50(dermal)}$	Rabbit	Not Available	$LC_{50(inh)}$	Rat (5 minutes)	300 g/M^3

RTECS #: LX3300000

TOLUENE

The most common effect of overexposure to toluene is irritation of the mucous membranes, skin and central nervous system depression (headaches, lassitude, light-headedness, incoordination, fatigue, decreased reaction time, etc.). Unlike closely related compound benzene, toluene does not appear to be toxic to the bone marrow. No synergistic effects data available. For the skin, prolonged and repeated exposure can caused defatting and dermatitis.

TOXICITY

Type of Dose	Specie	Result	Type of Dose	Specie	Result	Type of Dose	Specie	Result
$LD_{50(oral)}$	Rat	636 mg/kg	$LD_{50(dermal)}$	Rabbit	14.1 mL/kg	$LC_{50(inh)}$	Rat (4 hours)	49 g/M^3

Specific organ toxicity, single exposure: No data available	Specific organ toxicity, repeated exposure: No data available

CARCINOGENICITY			
IARC	Inadequate evidence in animals	Inadequate evidence in humans	Group 3: not classifiable as a human carcinogen
NTP	Not Listed		
California (Prop 65): Listed as carcinogen	**NIOSH:** Not Listed	**ACGIH:**A4-Not Classifiable As Human Carcinogen	**OSHA:** Not Listed

MUTAGENICITY, TERATOGENICITY AND REPRODUCTIVE EFFECTS	
Respiratory or Skin sensitization: No data available	Germ cell mutagenicity: Genotoxicity in vitro-rat: Liver and DNA damage
Reproductive toxicity: Have been shown in male/female rats	Teratogenicity: Developmental-rat: Fetotoxicity, stunted fetus. Suspected human reproductive toxicity.
Skin Corrosion/irritation: Skin-rabbit: irritation over 24 hours	Serious eye damage, irritation -rabbit: No data available
Synergistic effects: No data available	Aspiration hazard: No data available
RTECS #: XS5250000	

XYLENE

Xylene vapor may cause irritation of the eyes, nose, and throat. At high concentrations, xylene vapor may cause severe breathing difficulties which may be delayed in onset. At high concentrations, it may also cause dizziness, staggering, drowsiness, and unconsciousness. In addition, breathing high concentrations may cause loss of appetite, nausea, vomiting, and abdominal pain. Liquid xylene may be irritating to the eyes and skin. Exposure to high concentrations of xylene vapor may cause reversible damage to the kidneys and liver. Repeated or prolonged exposure to xylene may cause a skin rash. Repeated exposure of the eyes to high concentrations of xylene vapor may cause reversible eye damage.

TOXICITY								
Type of Dose	Specie	Result	Type of Dose	Specie	Result	Type of Dose	Specie	Result
$LD_{50(oral)}$	Rat	4.3 g/kg	$LD_{50(dermal)}$	Rabbit	1,700 mg/kg	$LC_{50(inh)}$	Rat (4 hours)	5,000 ppm

Specific organ toxicity, single exposure: No data available	Specific organ toxicity, repeated exposure: No data available

CARCINOGENICITY			
IARC	Inadequate evidence in animals	Inadequate evidence in humans	Group 3: not classifiable as a human carcinogen
NTP	Suspect Carcinogen		
California (Prop 65): Not Listed as carcinogen	**NIOSH:** Occupational Carcinogen	**ACGIH:**A4-Not Classifiable As Human Carcinogen	**OSHA:** Not Listed

MUTAGENICITY, TERATOGENICITY AND REPRODUCTIVE EFFECTS	
Respiratory or Skin sensitization: No data available	Germ cell mutagenicity: No data available
Reproductive toxicity: No data available	Teratogenicity: No data available
Skin Corrosion/irritation: Skin-rabbit: irritation over 24 hours	Serious eye damage, irritation-rabbit: mild eye irritation
Synergistic effects: No data available	Aspiration hazard: No data available
RTECS #: ZE2100000	

HEXANE

May cause respiratory tract irritation. Exposure produces central nervous system depression. Inhalation of vapors may cause drowsiness and dizziness. Chronic exposure may cause liver damage. Adverse reproductive effects have been reported in animals. Laboratory experiments have resulted in mutagenic effects.

TOXICITY								
Type of Dose	Specie	Result	Type of Dose	Specie	Result	Type of Dose	Specie	Result
$LD_{50(oral)}$	Rat	15.8 g/kg	$LD_{50(dermal)}$	Rabbit	No Data	$LC_{50(inh)}$	Rat (4 hours)	48,000 ppm

Specific organ toxicity, single exposure: May cause drowsiness or dizziness	Specific organ toxicity, repeated exposure: may cause damage to organs from repeated or prolonged exposure. May cause nervous system damage.

CARCINOGENICITY

Testicular tumors shown in rats.

IARC	Not Listed
NTP	Not Listed

California (Prop 65): Not listed as carcinogen	**NIOSH:** Not Listed	**ACGIH:** Not Listed	**OSHA:** Not Listed

MUTAGENICITY, TERATOGENICITY AND REPRODUCTIVE EFFECTS

Respiratory or Skin sensitization: No data available	Germ cell mutagenicity: No data available
Reproductive toxicity: overexposure may cause reproductive disorders based on lab animals. May damage fertility in humans.	Teratogenicity: No data available
Skin Corrosion/irritation: No data available	Serious eye damage, irritation -rabbit: mild eye irritation
Synergistic effects: No data available	Aspiration hazard: May be fatal if swallowed and enters airway.

RTECS #: MN9275000

BENZENE

Acute inhalation effects may cause respiratory tract irritation drowsiness, unconsciousness, and central nervous system depression. Potential symptoms of overexposure by inhalation are dizziness, headache, vomiting, visual disturbances, staggering gait, hilarity, fatigue, and other symptoms of CNS depression.

Chronic exposures may cause bone marrow abnormalities with damage to blood forming tissues. May cause anemia and other blood cell abnormalities. Chronic exposure to benzene has been associated with an increased incidence of leukemia and multiple myeloma (tumor composed of cells of the type normally found in the bone marrow). This substance has caused adverse reproductive and fetal effects in laboratory animals.

Toxicity

Type of Dose	Specie	Result	Type of Dose	Specie	Result	Type of Dose	Specie	Result
$LD_{50(oral)}$	Rat	930 mg/kg	$LD_{50(dermal)}$	Rabbit	9.4 ml/kg	$LC_{50(inh)}$	Mouse (4 hours)	9,980 ppm

Specific organ toxicity, single exposure: May cause drowsiness or dizziness	Specific organ toxicity, repeated exposure: may cause damage to organs from repeated or prolonged exposure. May cause nervous system damage.

CARCINOGENICITY

IARC	Sufficient evidence in animals	Sufficient evidence in humans	Group 1: classifiable as a human carcinogen
NTP	Carcinogen		

California (Prop 65): Listed as carcinogen	**NIOSH:** Potential Occupational Carcinogen	**ACGIH:** A1 - Confirmed human carcinogen	**OSHA:** Select Carcinogen

MUTAGENICITY, TERATOGENICITY AND REPRODUCTIVE EFFECTS

Respiratory or Skin sensitization: No data available	Germ cell mutagenicity: lab testing shows mutagenic effects (in vivo). Genotoxicity in humans (in vivo) lymphocyte. Genotoxic damage shown in mice.

Reproductive toxicity: inhalation toxicity in mouse, including embryonic and fetal effects including death	Teratogenicity: Rat inhalation include effects include stunted fetus and death Mouse inhalation include effects include cytological changes and abnormalities to blood and lymphatic system.
Skin Corrosion/irritation: will cause skin irritation	Serious eye damage, irritation -rabbit: mild eye irritation
Synergistic effects: damage to bone marrow	Aspiration hazard: May be fatal if swallowed and enters airway.
RTECS #: CY1400000	

TRIMETHYL BENZENE

Acute inhalation effects respiratory tract irritation. The toxicological properties of this substance have not been fully investigated. May cause drowsiness, unconsciousness, and central nervous system depression. Vapors may cause dizziness or suffocation. Prolonged or repeated skin contact may cause dermatitis. May cause anemia and other blood cell abnormalities. Prolonged exposure may produce a narcotic effect. Prolonged or repeated exposure may cause nausea, dizziness, and headache.

TOXICITY

Type of Dose	Specie	Result	Type of Dose	Specie	Result	Type of Dose	Specie	Result
$LD_{50(oral)}$	Rat	8.97 g/kg	$LD_{50(dermal)}$	Rabbit	No Data	$LC_{50(inh)}$	Rat (4 hours)	No Data

Specific organ toxicity, single exposure: No data available	Specific organ toxicity, repeated exposure: No data available

CARCINOGENICITY

IARC	Not Listed		
NTP	Not Listed		
California (Prop 65): Not Listed as carcinogen	**NIOSH:** Not Listed	**ACGIH:** Not Listed	**OSHA:** Not Listed

MUTAGENICITY, TERATOGENICITY AND REPRODUCTIVE EFFECTS

Respiratory or Skin sensitization: No data available	Germ cell mutagenicity: test performed on rats showed negative results
Reproductive toxicity: No data available	Teratogenicity: No data available
Skin Corrosion/irritation: No data available	Serious eye damage, irritation -rabbit: mild eye irritation
Synergistic effects: No data available	Aspiration hazard: May be fatal if swallowed and enters airway.
RTECS #: DC3220000	

1,2,4 TRIMETHYL BENZENE

Acute inhalation effects respiratory tract irritation. The toxicological properties of this substance have not been fully investigated. May cause drowsiness, unconsciousness, and central nervous system depression. Vapors may cause dizziness or suffocation. Prolonged or repeated skin contact may cause dermatitis. May cause anemia and other blood cell abnormalities. Prolonged exposure may produce a narcotic effect. Prolonged or repeated exposure may cause nausea, dizziness, and headache.

TOXICITY

Type of Dose	Specie	Result	Type of Dose	Specie	Result	Type of Dose	Specie	Result
$LD_{50(oral)}$	Rat	5.0 g/kg	$LD_{50(dermal)}$	Rabbit	No Data	$LC_{50(inh)}$	Rat (4 hours)	18 g/M^3

Specific organ toxicity, single exposure: No data available	Specific organ toxicity, repeated exposure: No data available

CARCINOGENICITY			
IARC	Not Listed		
NTP	Not Listed		
California (Prop 65): Not Listed as carcinogen	**NIOSH:** Not Listed	**ACGIH:** Not Listed	**OSHA:** Not Listed

MUTAGENICITY, TERATOGENICITY AND REPRODUCTIVE EFFECTS	
Respiratory or Skin sensitization: No data available	Germ cell mutagenicity: test performed on rats showed negative results
Reproductive toxicity: No data available	Teratogenicity: No data available
Skin Corrosion/irritation: No data available	Serious eye damage, irritation -rabbit: mild eye irritation
Synergistic effects: No data available	Aspiration hazard: May be fatal if swallowed and enters airway.
RTECS #: DC3325000	

CUMENE

Cumene may cause irritation of the skin and eyes. It may also cause dizziness, drowsiness, slight incoordination, and unconsciousness. At very high concentrations, it may cause narcotic symptoms. Prolonged or repeated exposure to Cumene may cause skin rash.

TOXICITY

Type of Dose	Specie	Result	Type of Dose	Specie	Result	Type of Dose	Specie	Result
$LD_{50(oral)}$	Rat	1.4 g/kg	$LD_{50(dermal)}$	Rabbit	No Data	$LC_{50(inh)}$	Rat (4 hours)	39 g/M^3

Specific organ toxicity, single exposure: May cause respiratory irritation	Specific organ toxicity, repeated exposure: No data available

CARCINOGENICITY			
IARC	Not Listed		
NTP	Not Listed		
California (Prop 65): Listed as carcinogen	**NIOSH:** Not Listed	**ACGIH:** Not Listed	**OSHA:** Not Listed

MUTAGENICITY, TERATOGENICITY AND REPRODUCTIVE EFFECTS	
Respiratory or Skin sensitization: Testing showed no sensitization	Germ cell mutagenicity: test performed on rats showed negative results
Reproductive toxicity: No data available	Teratogenicity: No data available
Skin Corrosion/irritation: Testing showed no irritation	Serious eye damage, irritation-Testing showed no irritation
Synergistic effects: No data available	Aspiration hazard: May be fatal if swallowed and enters airway.
RTECS #: GR8575000	

CYCLOHEXANE

May cause respiratory tract irritation. Inhalation of vapors may cause drowsiness and dizziness. Prolonged or repeated skin contact may cause defatting and dermatitis.

TOXICITY

Type of Dose	Specie	Result	Type of Dose	Specie	Result	Type of Dose	Specie	Result
$LD_{50(oral)}$	Rat	5 g/kg	$LD_{50(dermal)}$	Rabbit	>180 g/kg	$LC_{50(inh)}$	Rat (4 hours)	>9,500 ppm

Specific organ toxicity, single exposure: May cause drowsiness or dizziness	Specific organ toxicity, repeated exposure: No data available

CARCINOGENICITY			
IARC	Not Listed		
NTP	Not Listed		
California (Prop 65): Not Listed as carcinogen	**NIOSH:** Not Listed	**ACGIH:** Not Listed	**OSHA:** Not Listed

MUTAGENICITY, TERATOGENICITY AND REPRODUCTIVE EFFECTS	
Respiratory or Skin sensitization: No data available	Germ cell mutagenicity: No data available
Reproductive toxicity: No data available	Teratogenicity: No data available
Skin Corrosion/irritation: Testing showed no irritation	Serious eye damage, irritation-rabbit: mild eye irritation
Synergistic effects: No data available	Aspiration hazard: May be fatal if swallowed and enters airway.
RTECS #: GU6300000	

ETHYL BENZENE

Exposure to ethyl benzene may cause irritation of the skin and mucous membranes. It may also cause transient eye irritation at concentrations of 200 ppm. Breathing very high levels can cause dizziness and throat and eye irritation. Breathing lower levels has resulted in hearing effects and kidney damage in animals.

TOXICITY

Type of Dose	Specie	Result	Type of Dose	Specie	Result	Type of Dose	Specie	Result
$LD_{50(oral)}$	Rat	3.5 g/kg	$LD_{50(dermal)}$	Rabbit	17.8 mL/kg	$LC_{50(inh)}$	Rat (4 hours)	55 g/M^3

Specific organ toxicity, single exposure: No data available	Specific organ toxicity, repeated exposure: No data available

CARCINOGENICITY			
IARC	Sufficient evidence in animals	Inadequate evidence in humans	Group 2B: Possibly carcinogenic to humans
NTP	Not Listed		
California (Prop 65): Listed as carcinogen	**NIOSH:** Occupational Carcinogen	**ACGIH:**A4-Not Classifiable As Human Carcinogen	**OSHA:** Possible Select Carcinogen

MUTAGENICITY, TERATOGENICITY AND REPRODUCTIVE EFFECTS	
Respiratory or Skin sensitization: No data available	Germ cell mutagenicity: No data available
Reproductive toxicity: No data available	Teratogenicity: No data available
Skin Corrosion/irritation: No data available	Serious eye damage, irritation-rabbit: No data available
Synergistic effects: No data available	Aspiration hazard: No data available
RTECS #: DA0700000	

NAPHTHALENE

Inhalation may cause respiratory tract irritation. Hemolytic anemia (destruction of red blood cells) is the primary health concern for humans exposed to naphthalene for either short or long periods of time. Other effects may include nausea, profuse perspiration, vomiting, kidney damage and liver damage. Chronic exposure may cause lung damage.

TOXICITY

Type of Dose	Specie	Result	Type of Dose	Specie	Result	Type of Dose	Specie	Result
$LD_{50(oral)}$	Rat	490 mg/kg	$LD_{50(dermal)}$	Rabbit	>20 g/kg	$LC_{50(inh)}$	Rat (1 hour)	No Data

Specific organ toxicity, single exposure: No data available	Specific organ toxicity, repeated exposure: No data available

CARCINOGENICITY			
IARC	Sufficient evidence in animals	Inadequate evidence in humans	Group 2B: Possibly carcinogenic to humans
NTP	Listed as reasonably anticipated to be a human carcinogen		
California (Prop 65): Listed as carcinogen	**NIOSH:** Not Listed	**ACGIH:** Not Listed	**OSHA:** Not Listed

MUTAGENICITY, TERATOGENICITY AND REPRODUCTIVE EFFECTS	
Respiratory or Skin sensitization: No data available	Germ cell mutagenicity: No data available
Reproductive toxicity: No data available	Teratogenicity: No data available
Skin Corrosion/irritation: Testing showed no irritation	Serious eye damage, irritation-rabbit: mild eye irritation
Synergistic effects: No data available	Aspiration hazard: No data available
RTECS #: QJ0525000	

STYRENE

Styrene can cause eye and upper respiratory irritation at concentrations of over 100 ppm; when concentrations reach over 350 ppm, irritation is strong and neurological impairment is observed. Central nervous system depression (tiredness, headache and dizziness) has been observed at concentrations between 200-700 ppm.

TOXICITY								
Type of Dose	Specie	Result	Type of Dose	Specie	Result	Type of Dose	Specie	Result
$LD_{50(oral)}$	Rat	2.65 g/kg	$LD_{50(dermal)}$	Rabbit	No Data	$LC_{50(inh)}$	Rat (1 hour)	11.8 g/M^3

Specific organ toxicity, single exposure: No data available	Specific organ toxicity, repeated exposure: No data available

CARCINOGENICITY			
IARC	Sufficient evidence in animals	Inadequate evidence in humans	Group 2B: Possibly carcinogenic to humans
NTP	Listed as reasonably anticipated to be a human carcinogen		
California (Prop 65): Listed as carcinogen	**NIOSH:** Not Listed	**ACGIH:** Not Listed	**OSHA:** Not Listed

MUTAGENICITY, TERATOGENICITY AND REPRODUCTIVE EFFECTS	
Respiratory or Skin sensitization: No data available	Germ cell mutagenicity: Lab experiments have shown mutagenic effects.
Reproductive toxicity: No data available	Teratogenicity: No data available
Skin Corrosion/irritation: Testing showed no irritation	Serious eye damage, irritation-rabbit: mild eye irritation
Synergistic effects: No data available	Aspiration hazard: No data available
RTECS #: WL3675000	

SECTION 12 ❋ ECOLOGICAL INFORMATION

GASOLINE

TOXICITY					
Type of Dose	Specie	Result	Type of Dose	Specie	Result
LC_{50}	----------	No Data	EC_{50}	----------	No Data
EC_{50}	----------	No Data	EC_{50}	Microtox	11.5 mg/L 48 Hours

PERSISTENCE AND DEGRADABILITY

Readily biodegradable in the environment. The presence of ethanol in this product may impede the biodegradation of benzene, toluene, ethyl benzene and xylene in groundwater, resulting in elongated plumes of these constituents.

BIOACCUMULATIVE POTENTIAL			
Log P_{ow}	2.1 - 6.0	BCF	No Data

MOBILITY IN SOIL	
K_{oc} (Soil/water Partition Coefficient)	No Data

TOLUENE					
TOXICITY					
Type of Dose	Specie	Result	Type of Dose	Specie	Result
LC_{50}	Goldfish	13 mg/L 96 Hours	EC_{50}	Water Flea	11.5 mg/L 48 Hours
EC_{50}	Green algae	>433 mg/L 72 Hours	EC_{50}	Microtox	19.7 mg/L 48 Hours
BIOACCUMULATIVE POTENTIAL					
Log P_{ow}		2.65	BCF		8.317

XYLENE					
TOXICITY					
Type of Dose	Specie	Result	Type of Dose	Specie	Result
LC_{50}	Striped Bass	2 mg/L	LC_{50}	Water Flea	0.6 mg/L 48 Hours
EC_{50}	Green algae	72 mg/L 14 day	EC_{50}	Microtox	8.4 µg/L 48 Hours
Log P_{ow}		2.77-3.15	BCF		No Data

HEXANE					
TOXICITY					
Type of Dose	Specie	Result	Type of Dose	Specie	Result
LC_{50}	fathead minnow	2.5 mg/L 96 hours	EC_{50}	Water Flea	3.87 mg/L 48 Hours
EC_{50}	Green algae	12.8 g/L 3 hours	EC_{50}	Microtox	No Data
BIOACCUMULATIVE POTENTIAL					
Log P_{ow}		3.9	BCF		No Data

BENZENE					
TOXICITY					
Type of Dose	Specie	Result	Type of Dose	Specie	Result
LC_{50}	fathead minnow	15-32 mg/L 96 hours	EC_{50}	Water Flea	10 mg/L 48 Hours
EC_{50}	Green algae	29 mg/L 72 Hours	EC_{50}	Microtox	No Data
BIOACCUMULATIVE POTENTIAL					
Log P_{ow}		1.83	BCF		4.265

1,2,4 TRIMETHYL BENZENE					
TOXICITY					
Type of Dose	Specie	Result	Type of Dose	Specie	Result
LC_{50}	fathead minnow	7.72 mg/L 96 hours	EC_{50}	Water Flea	6.14 mg/L 48 Hours
EC_{50}	Green algae	No Data	EC_{50}	Microtox	No Data
BIOACCUMULATIVE POTENTIAL					
Log P_{ow}		3.63	BCF		120.2

CUMENE					
TOXICITY					
Type of Dose	Specie	Result	Type of Dose	Specie	Result
LC_{50}	Rainbow trout	4.8 mg/L 96 Hours	EC_{50}	Water Flea	0.6 mg/L 48 Hours
EC_{50}	Green algae	2.6 mg/L 72 Hours	EC_{50}	Microtox	0.89 mg/L 5 Min
Log P_{ow}				3.55	

CYCLOHEXANE					
TOXICITY					
Type of Dose	Specie	Result	Type of Dose	Specie	Result
LC_{50}	fathead minnow	32-93 mg/L 96 hours	EC_{50}	Water Flea	0.6 mg/L 48 Hours
EC_{50}	Green algae	>500 mg/L 72 Hours	EC_{50}	Microtox	85.5 mg/L 5 Min
Log P_{ow}				3.44	

ETHYL BENZENE					
TOXICITY					
Type of Dose	Specie	Result	Type of Dose	Specie	Result
LC_{50}	Sheepshead minnow	88 mg/L 96 hours	EC_{50}	Water Flea	1.8-2.4 mg/L 48 Hours
EC_{50}	Green algae	4.6 mg/L 72 Hours	EC_{50}	Microtox	9.68 mg/L 30 Min
BIOACCUMULATIVE POTENTIAL					
Log P_{ow}		3.118	BCF		No Data

NAPHTHALENE					
TOXICITY					
Type of Dose	Specie	Result	Type of Dose	Specie	Result
LC_{50}	fathead minnow	1-6.5 mg/L 96 hours	EC_{50}	Water Flea	2.16 mg/L 48 Hours
EC_{50}	Green algae	0.4 mg/L 96 Hours	EC_{50}	Microtox	0.93 mg/L 30 Min
BIOACCUMULATIVE POTENTIAL					
Log P_{ow}		3.3	BCF		85.1

STYRENE					
TOXICITY					
Type of Dose	Specie	Result	Type of Dose	Specie	Result
LC_{50}	fathead minnow	4 mg/L 96 hours	EC_{50}	Water Flea	4.7 mg/L 48 Hours
EC_{50}	Green algae	0.72 mg/L 96 Hours	EC_{50}	Microtox	5.4 mg/L 5 Min
Log P_{ow}				2.95	

SECTION 13 ★ DISPOSAL CONSIDERATIONS

Not Meant To Be All Inclusive - Check Local, State, And Federal Laws And Regulations

Maximize product recovery for reclaim and reuse. Implement waste minimization principles. EPA U.S. Waste Codes: "Ignitable hazardous waste" (D001), unless proven otherwise. Use approved treatment, transporters, and disposal sites in compliance with all laws.

Waste Disposal Method: Should not be released into the environment.

Contaminated Packaging: Dispose of in accordance with local regulations.

US EPA Waste Number: D018 and D001

SECTION 14 ▣ TRANSPORTATION INFORMATION

Not Meant To Be All Inclusive - Check Local, State, And Federal Laws And Regulations

Element	U.S. DOT	IMDG	IATA
UN Number	UN 1203	UN 1203	UN 1203
UN Proper Shipping Name	Gasoline, All Grades	Gasoline, All Grades	Gasoline, All Grades
Hazard Class(es)	3	3	3
Placard/Label			
Environmental Hazard	No	No	No
Packing Group	II	II	II

SECTION 15 ☽ REGULATORY INFORMATION

Agency	Listing Guidance only, consult specific regulations	
OSHA	All ingredients are listed as hazardous under 29 CFR 1910.1200	
CERCLA RQ's (40 CFR Part 102)	Benzene – 10 pounds	
	Cumene - 5,000 pounds	Cyclohexane - 1,000 pounds
	Naphthalene – 100 pounds	Styrene - 1,000 pounds
	Xylene - 100 pounds	Ethyl Benzene - 1,000 pounds
	Toluene - 1,000 pounds	Hexane – 5,000 pounds
TSCA 8(a)	Naphthalene	
TSCA 8(b)	All components are listed or exempted	
SARA (40 CFR Part 355) TPQ's	None of the ingredients are listed	
SARA 302/304/311/312 extremely hazardous substances	None of the ingredients are listed	
SARA 302/304 emergency planning and notification	None of the ingredients are listed	
SARA 302/304/311/312 hazardous chemicals	Gasoline; Xylene; Toluene; n-Hexane; Naphthalene; 1,2,4-Trimethylbenzene; Ethylbenzene; Benzene	
RCRA	Benzene - U019	Hexane - U056
	Naphthalene – U165	
	Xylene - U239	Toluene - U220
State Regulations: Massachusetts, New Jersey, and Pennsylvania	Xylene Toluene, Hexane, Benzene, Ethyl benzene ,1,2,4 Trimethyl Benzene, and Naphthalene	
New York - all listed except 1,2,4 Trimethyl Benzene		
SARA 311/312 SDS distribution - chemical inventory - hazard identification	Gasoline: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; Xylene: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; Toluene: Fire hazard,	

	Immediate (acute) health hazard, Delayed (chronic) health hazard; n-Hexane: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; Naphthalene: Fire hazard, Immediate(acute) health hazard, Delayed (chronic) health hazard; 1,2,4-Trimethylbenzene: Fire hazard, Delayed (chronic) health hazard; Ethylbenzene: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; Benzene: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard.
EPA Form R Toxic Chemical Release Inventory	Toluene, Xylene, Hexane, 1,2,4 Trimethyl Benzene, Benzene, Ethyl benzene and Naphthalene
Clean Water Act (CWA) 307	Toluene, Benzene, Ethylbenzene and Naphthalene
Clean Water Act (CWA) 311	Xylene, Toluene, Benzene, Ethylbenzene and Naphthalene
Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs)	Listed
Clean Air Act Section 602 Class I Substances	Not Listed
Clean Air Act Section 602 Class II Substances	Not Listed

SECTION 16 ⌘ OTHER INFORMATION

NFPA LABEL

HMIS III LABEL

Personal Protection Index

NPCA recommends that PPE codes be determined by the employer, who is familiar with the actual conditions under which chemicals in the facility are used.

Acronym List

°F=degrees Fahrenheit	°C=degrees Celsius	ACGIH= American Conference of Industrial Hygienists
APR=Air Purifying Respirator	BCF= Bioconcentration Factor	BuAc=Butyl Acetate
CANUTEC= Canadian Transport Emergency Centre	CAS=Chemical Abstract Service	CERCLA= Comprehensive Environmental Response, Compensation, and Liability Act
CHEMTREC= Chemical Transportation Emergency Center	CNS=Central Nervous System	CWA=Clean Water Act
DOT=Department of Transportation	EC50= Effective Concentration Fifty	EPA=Environmental Protection Agency
g/Kg=Grams per Kilogram	g/M^3=Grams per Cubic Meter	GHS=Global Harmonization System
H_2O=Water	HAP=Hazardous Air Pollutants	HMIS= Hazardous Materials Identification System
IARC= International Agency for Research on Cancer	IATA= International Air Transport Association	IMDG= International Maritime Dangerous Goods
LC_{50}=Lethal Concentration Fifty	LD_{50}=Lethal Dose Fifty	LEL=Lower Explosive Limit
Log P_{ow} =Octanol/water partition coefficient	mg/Kg=Milligrams per Kilogram	mg/L=Milligrams per Liter

mL/Kg=Milliliters per Kilogram	mm HG=millimeters of mercury	NFPA=National Fire Protection Association
NIOSH= National Institute for Occupational Safety and Health	NTP=National Toxicology Program	OSHA=Occupational Safety and Health Administration
PEL=Permissible Exposure Limit	ppm=Parts per Million	RCRA=Resource Conservation and Recovery Act
RQ=Reportable Quantities	RTECS=Registry of Toxic Effects of Chemical Substances	SARA= Superfund Amendments and Reauthorization Act
SDS=Safety Data Sheet	SETIQ= Emergency Transportation System for the Chemical Industry; Mexico	STEL=Short Term Exposure Limit
TLV=Threshold Limit Value	TPQ=Threshold Planning Quantity	TSCA=Toxic Substance and Control Act
TWA=Time Weighted Average	UEL=Upper Explosive Limit	VOC=Volatile Organic Compounds

SDS REVISIONS: General update

SDS CREATION DATE: 11/01/13 **REVISION #2:** 07/12/23

DISCLAIMER

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SDS DEVELOPER: Cass Willard

Cass Willard, CIH

DATE: 07/12/23