

**MSDS Summary Sheet**

**Manufacturer:**

Name: TOSCO  
Address 1: CORPORATE HEADQUARTERS  
Address 2: 72 COMMINGS POINT ROAD  
Address 3:  
CSZ: STAMFORD State: CT Zipcode: 06901  
Emergency phone: 510-228-1220  
Business phone: 360-384-1011

**Product:**

MSDS#: 1050 Version: 1  
Name:  
**GASOLINE, REGULAR UNLEADED or GASOLINE, REGULAR**  
Synonyms:  
RUL Gasoline  
Regular Unleaded Gasoline  
MSDS Date: 05/13/96 (received: 05/14/96)

**HMIS codes:**

Health: 2 Flammability: 3 Reactivity: 0

**NFPA codes:**

Health: 1 Flammability: 3 Reactivity: 0

Possible carcinogen: y Benzene: y LEL: 1.4

**Product hazards:**

SOLVENT EFFECTS.  
BLOOD HAZARD.  
CARCINOGEN.  
TERATOGEN.  
REPRODUCTIVE HAZARD

**RCRA waste numbers:**

D001, D018

**Chemical components:**

**CAS #      Chemical name**

8006-61-9 Gasoline  
TLV: 300 PPM (TWA), 500 PPM (STEL)  
OSHA PEL: 300 PPM (TWA), 500 PPM (STEL)  
SARA Threshold Planning Quantity: TPQ, low: NE high: NE  
SARA 313 Form R? N  
RCRA Waste Numbers: NE  
RCRA Extremely Hazardous Substance? N  
DeMinimus: NE; 1 lbs.; 1 lbs.; 0.1 lbs.; 1 lbs.; 1 lbs.; 1 lbs.; NE; 1 lbs.;  
NE CERCLA RQ: NE

108-88-3 Toluene  
TLV: 50 PPM  
OSHA PEL: 200 PPM (TWA), 300 PPM (STEL)  
SARA Threshold Planning Quantity: TPQ, low: NE high: NE  
SARA 313 Form R? Y  
RCRA Waste Numbers: U220  
RCRA Extremely Hazardous Substance? Y  
DeMinimus: NE; 1 lbs.; 1 lbs.; 0.1 lbs.; 1 lbs.; 1 lbs.; 1 lbs.; NE; 1 lbs.;  
NE CERCLA RQ: 1000 lbs.

1330-20-7 Xylene  
TLV: 100 PPM (TWA), 150 PPM (STEL)  
OSHA PEL: 100 PPM  
SARA Threshold Planning Quantity: TPQ, low: NE high: NE  
SARA 313 Form R? Y  
RCRA Waste Numbers: U239  
RCRA Extremely Hazardous Substance? Y  
DeMinimus: NE; 1 lbs.; 1 lbs.; 0.1 lbs.; 1 lbs.; 1 lbs.; 1 lbs.; NE; 1 lbs.;  
NE CERCLA RQ: 1000 lbs.

71-43-2 Benzene  
TLV: 10 PPM  
OSHA PEL: 1 PPM (TWA), 5 PPM (STEL)  
SARA Threshold Planning Quantity: TPQ, low: NE high: NE  
SARA 313 Form R? Y  
RCRA Waste Numbers: U019  
RCRA Extremely Hazardous Substance? Y  
DeMinimus: NE; 1 lbs.; 1 lbs.; 0.1 lbs.; 1 lbs.; 1 lbs.; 1 lbs.; NE; 1 lbs.;  
NE CERCLA RQ: 10 lbs.

95-63-6 1,2,4-Trimethylbenzene  
TLV: 25 PPM  
OSHA PEL: NE (TWA), NE (STEL)  
SARA Threshold Planning Quantity: TPQ, low: NE high: NE  
SARA 313 Form R? Y  
RCRA Waste Numbers: NE  
RCRA Extremely Hazardous Substance? N  
DeMinimus: NE; 1 lbs.; 1 lbs.; 0.1 lbs.; 1 lbs.; 1 lbs.; 1 lbs.; NE; 1 lbs.;  
NE CERCLA RQ: NE

100-41-4 Ethylbenzene  
TLV: 100 ppm (TWA), 125 PPM (STEL)  
OSHA PEL: 100 PPM  
SARA Threshold Planning Quantity: TPQ, low: NE high: NE  
SARA 313 Form R? Y  
RCRA Waste Numbers: NE  
RCRA Extremely Hazardous Substance? N  
DeMinimus: NE; 1 lbs.; 1 lbs.; 0.1 lbs.; 1 lbs.; 1 lbs.; 1 lbs.; NE; 1 lbs.;  
NE CERCLA RQ: 1000 lbs.

110-82-7 Cyclohexane  
TLV: 300 PPM  
OSHA PEL: 300 PPM  
SARA Threshold Planning Quantity: TPQ, low: NE high: NE  
SARA 313 Form R? Y  
RCRA Waste Numbers: U056  
RCRA Extremely Hazardous Substance? Y  
DeMinimus: NE; 1 lbs.; 1 lbs.; 0.1 lbs.; 1 lbs.; 1 lbs.; 1 lbs.; NE; 1 lbs.;  
NE CERCLA RQ: 1000 lbs.

64-17-5 Ethanol  
TLV: 1000 PPM  
OSHA PEL: 1000 PPM  
SARA Threshold Planning Quantity: TPQ, low: NE high: NE  
SARA 313 Form R? N  
RCRA Waste Numbers: NE  
RCRA Extremely Hazardous Substance? N  
DeMinimus: NE; 1 lbs.; 1 lbs.; 0.1 lbs.; 1 lbs.; 1 lbs.; 1 lbs.; NE; 1 lbs.;  
NE CERCLA RQ: NE

1634-04-4 Methyl tert-butyl ether  
TLV: 40 PPM  
OSHA PEL: NE (TWA), NE (STEL)

SARA Threshold Planning Quantity: TPQ, low: NE high: NE  
SARA 313 Form R? Y  
RCRA Waste Numbers: NE  
RCRA Extremely Hazardous Substance? N  
DeMinimus: NE; 1 lbs.; 1 lbs.; 0.1 lbs.; 1 lbs.; 1 lbs.; 1 lbs.; NE; 1 lbs.;  
NE CERCLA RQ: 1 lbs.

637-92-3 Ethyl tert-butyl ether  
TLV: NE (TWA), NE (STEL)  
OSHA PEL: NE (TWA), NE (STEL)  
SARA Threshold Planning Quantity: TPQ, low: NE high: NE  
SARA 313 Form R? N  
RCRA Waste Numbers: NE  
RCRA Extremely Hazardous Substance? N  
DeMinimus: NE; 1 lbs.; 1 lbs.; 0.1 lbs.; 1 lbs.; 1 lbs.; 1 lbs.; NE; 1 lbs.;  
NE CERCLA RQ: NE

\*Information in brackets is provided by Schumacher and Associates, Inc. as a suggested correction to the information presented by the manufacturer.

### Manufacturer's MSDS Report:

TOSCO MSDS Number: 1050

01 ---- Section 01 Chemical Product and Company Identification ----

24-HOUR EMERGENCY ASSISTANCE: (510)-228-1220  
GENERAL ASSISTANCE : (360)-384-1011  
CHEMTREC ASSISTANCE : (800)-424-9300

MSDS Number 1050

Version # : 1

**MANUFACTURER/SUPPLIER:**

Tosco Corporation  
72 Cummings Point Road  
Stamford, CT 06901

**TRADE NAME:** GASOLINE, REGULAR UNLEADED (Minimum 87 Octane)

REVISION DATE : 05/13/96  
REPLACES SHEET DATED: 03/06/96

CAS NUMBER : MIXTURE  
SYNONYM(S) : MOTOR FUEL, UNLEADED  
CHEMICAL FAMILY : PETROLEUM HYDROCARBON  
MOLECULAR FORMULA : MIXTURE  
MOLECULAR WEIGHT : MIXTURE

COMPLETED BY: SCHUMACHER & ASSOCIATES, INC.  
2200 6th Ave., Suite 250  
Seattle, WA 98121

02 ---- Section 02 Composition, Information on Ingredients ----

COMPONENT	CAS NO.	%	EXPOSURE LIMITS - REF.
Gasoline	8006-61-9	89-100	300 ppm (890 mg/m3) TLV; 500 ppm (1480 mg/m3) STEL (ACGIH) 300 ppm (890 mg/m3) PEL; 500 ppm (1480 mg/m3) STEL (OSHA)

**Health Hazards:** Inhalation causes drowsiness. Central nervous system depressant.

Gasoline may contain one or more of the following:

Toluene	108-86-3	5-8	50 ppm (188 mg/m <sup>3</sup> ) TLV (ACGIH) 200 ppm (754 mg/m <sup>3</sup> ) PEL; 300 ppm (1130 mg/m <sup>3</sup> ) STEL (OSHA)
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**Health Hazards:** May cause irritation of the lungs, throat and airways. Severe eye irritant. Central nervous system depressant. Long-term overexposure may result in chronic bronchitis (cough and production of excess mucous), irritation of the throat, increased sputum, tightness of the chest, wheezing and decreased endurance. May cause damage to the kidneys and liver. Experimental reproductive hazard and teratogen.

Xylene	1330-20-7	5-10	100 ppm (434 mg/m <sup>3</sup> ) TLV; 150 ppm (651 mg/m <sup>3</sup> ) STEL (ACGIH) 100 ppm (435 mg/m <sup>3</sup> ) PEL (OSHA)
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**Health Hazards:** May cause irritation of the lungs, throat and airways. Severe eye irritant. Central nervous system depressant. Long-term overexposure may result in generalized disturbances of the gastrointestinal tract. May cause damage to the kidneys and liver. Experimental reproductive hazard and teratogen.

Benzene	71-43-2	0-3	10 ppm (32 mg/m <sup>3</sup> ) TLV (ACGIH) 1 ppm PEL; 5 ppm STEL (OSHA) 0.1 ppm TWA; 1 ppm STEL (NIOSH)
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**Health Hazards:** Harmful or fatal if swallowed, inhaled or absorbed through the skin. Moderately irritating to the skin. Severely irritating to the eye. Acute benzene poisoning causes central nervous system depression. Chronic exposure affects the hematopoietic system causing blood disorders including anemia and pancytopenia. Benzene has been listed as a cancer-causing chemical.

1,2,4 Trimethylbenzene	95-63-6	0-3	25 ppm (123 mg/m <sup>3</sup> ) TLV (ACGIH)
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**Health Hazards:** May cause irritation of the lungs, throat and airways. Central nervous system depressant. May cause bone marrow depression and anemia.

Ethylbenzene	100-41-4	0-2	100 ppm (434 mg/m <sup>3</sup> ) TLV; 125 ppm (543 mg/m <sup>3</sup> ) STEL (ACGIH) 100 ppm (435 mg/m <sup>3</sup> ) PEL (OSHA)
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**Health Hazards:** May cause irritation of the lungs, throat and airways. Overexposure may cause pulmonary edema and a sense of constriction in the chest. May cause damage to the kidneys and liver. Experimental teratogen.

Cyclohexane	110-82-7	0-1	300 ppm (1030 mg/m <sup>3</sup> ) TLV (ACGIH) 300 ppm (1050 mg/m <sup>3</sup> ) PEL (OSHA)
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of consciousness, coma, respiratory arrest and death. Other effects may include anemia and irregular heart rhythm. Repeated or prolonged exposures may cause behavioral changes. Benzene has been listed as a cancer-causing chemical.

**HEALTH EFFECTS (WHMIS):**

Exposure Limits :Yes, see Section 02  
Irritant :Yes  
Sensitization :No  
Teratogen :No  
Reproductive Hazard :No  
Mutagen :No  
Synergistic Effects :None reported  
Carcinogenicity: - NTP: Yes IARC: Yes (Class 2B) OSHA: Yes

NOTE: IARC has determined that there is limited evidence for the carcinogenicity of gasoline in experimental animals. An additional determination was made by IARC that there is inadequate evidence for the carcinogenicity of gasoline in humans (IARC Class 2B). This product has not been tested as a whole for all potential health effects. It may have other health hazards related to its components.

Warning: The use of hydrocarbon fuel in an area without adequate ventilation may result in hazardous levels of combustion products and/or dangerously low oxygen levels. IARC has determined that gasoline engine exhaust is possibly carcinogenic to humans (IARC Class 2B).

04 ---- Section 04 First Aid Measures ----

**INGESTION:**

If liquid is ingested (swallowed), do not induce vomiting. If vomiting occurs, keep victim's head lower than the stomach to prevent aspiration into the lungs. Seek immediate medical attention.

**SKIN CONTACT:**

Remove contaminated clothing immediately. Wash the skin with soap and warm water. If irritation persists, seek medical attention. High pressure injections are SERIOUS medical emergencies requiring immediate medical attention.

**EYE CONTACT:**

Flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Get medical attention if irritation persists.

**INHALATION:**

Remove affected person from source of exposure. If not breathing, ensure clear airway and institute cardiopulmonary resuscitation (CPR). If breathing is difficult, administer oxygen if available. Get immediate medical attention.

**NOTE TO PHYSICIAN:**

Gasoline is a complex mixture of hydrocarbons of varying volatility and toxicity. There are no significant toxicological distinctions between this formulation and others with regard to additives or grades. The most important source of exposure is via inhalation. Several hydrocarbon components rapidly pass through the alveolar lining. The stomach mucosa provides a greater barrier to absorption and the skin barrier is the most protective. In general, there is no specific treatment for hydrocarbon exposure. Treatment is supportive.

Inhalational exposure to gasoline vapor most commonly occurs during the inappropriate use of gasoline as a degreaser or solvent. This exposure may be exacerbated by work in a confined space. Gasoline components have both irritant and anesthetic properties. At high concentrations, it can act as a simple asphyxiant. Generally, individuals acutely exposed to

anesthetizing levels of exposure can require resuscitation and respiratory support. Rare fatalities are thought to be related to sudden cardiac death secondary to arrhythmias.

Ingestion (accidental in children or secondary to siphonage in adults, suicide attempts) rarely results in significant ingestion due to gasoline's unpalatable taste. Gasoline is a low level GI toxin. The principle risk relates to aspiration. As little as one milliliter of gasoline can result in a severe aspiration pneumonitis. Emesis should not be induced. If lavage is felt to be necessary the airway should be protected with a cuffed endotracheal tube. There may be some value to the use of an activated charcoal slurry and cathartics. The treatment of aspiration pneumonitis follows current accepted therapy.

Simple skin contact can be treated with thorough cleaning with soap and water. Protracted immersions can result in chemical burns that should be treated as thermal burns. Eye exposure generally results in irritation that can be treated by copious irrigation. Much less frequently, a more severe inflammatory response may require a short course of topical steroids.

Chronic exposures, typically inhalational, may potentially be associated with adverse health effects. Questions may best be referred to a toxicologist or physician experienced in chronic toxicological issues.

05 ---- Section 05 Fire Fighting Measures ----

FLAMMABILITY:

DANGER!

EXTREMELY FLAMMABLE LIQUID & VAPOR.  
MAY CAUSE FLASH FIRE.

FLASH POINT: -37.000 C (-35 F)

AUTOIGNITION TEMPERATURE: 444 C (833 F)

FLAMMABILITY LIMITS IN AIR (% BY VOL.) LOWER: 1.4

FLAMMABILITY LIMITS IN AIR (% BY VOL.) UPPER: 7.6

BASIC FIREFIGHTING PROCEDURES:

Use dry chemical, all purpose AFFF, alcohol foam or carbon dioxide to extinguish fire. Water may be ineffective for extinguishing fire but may be used to cool fire-impinged or expanded containers and structures. Water may be used to protect personnel and keep material away from sources of ignition. If leak or spill has not ignited, ventilate area and use water spray to disperse gas or vapor and to protect personnel attempting to stop a leak. Foam blankets may also be used to reduce vapors and protect responding personnel. Keep material out of public sewers and waterways.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Dangerous when exposed to heat or flame. Vapors form flammable or explosive mixtures with air at room temperature. Vapors may spread to distant ignition sources and flash back. Vapors may accumulate in low areas. Vapors may concentrate in confined areas. Containers may explode in heat of fire. Irritating or toxic substances may be emitted upon thermal decomposition. Protect exposed personnel with NIOSH/NFPA approved positive pressure self-contained breathing apparatus with full face mask and flame protective equipment.

06 ---- Section 06 Accidental Release Measures ----

PROCEDURES:

If your facility or operation has an "Oil or Hazardous Substance Contingency Plan", activate its procedures.

Take immediate steps to stop the leak or release. Caution should be exercised

regarding personnel safety and exposure to the released material.

For technical advice and assistance related to chemical spills, contact CHEMTREC (800/424-9300) and your local fire department.

For transportation or other large spills, follow U.S. Dept. of Transportation "Emergency Action Guide #27".

Keep unnecessary people away; isolate hazard area and deny entry. Stay upwind, keep out of low areas, and ventilate closed spaces before entering. (Also see Personal Protection Information section.)

Notify personnel downwind of the leak/release and evacuate the area. Isolate for 1/2 mile in all directions if tank, rail car or tank truck is involved in fire.

Shut off ignition sources; no flares, smoking or flames in hazard area. Use water spray to disperse vapors. Fire suppression foam may be used to cover the spill area and reduce vapors.

#### NOTIFICATIONS:

This material contains one or more constituents regulated as hazardous substances under U.S. Federal Law. Any spill or other release, or substantial threat of release, of this material to the air, waters or land (unless contained entirely in the workplace) equal to or in excess of the reportable quantity must be reported immediately to the National Response Center (800-424-8602).

Contact the appropriate state and local regulatory authorities. Contact the Coast Guard if spilled into navigable waterways (most surface waters).

The reportable quantity of this material is 333 pounds based on the component with the lowest reportable quantity (RQ) by volume percent in the mixture.

#### 07 ---- Section 07 Handling and Storage ----

##### HANDLING/STORAGE:

Store gasoline only in NFPA approved, clearly labeled containers that are tightly closed. Never store in glass or unapproved plastic containers. The storage location must be cool, dry, isolated, well-ventilated and away from heat, sources of ignition and incompatible materials.

Use grounding wires and equipment during product transfer to reduce the possibility of static spark caused fire or explosion.

##### EMPTY CONTAINERS:

Empty containers may contain flammable/combustible or explosive residue or vapors. Do not cut, grind, drill, weld or reuse containers unless adequate precautions are taken against these hazards.

#### 08 ---- Section 08 Exposure Controls, Personal Protection ----

##### EYE PROTECTION:

Avoid eye contact with this material. Wear safety glasses or chemical goggles. Provide an eyewash station in the work area.

##### SKIN PROTECTION:

Avoid skin contact. When working with this substance, wear appropriate chemical protective gloves. Depending upon conditions of use, additional protection may be necessary such as face shield, apron, armcovers, etc. Wash work clothing regularly. Do not wear contaminated clothing near sources of ignition such as sparks or open flames. Launder contaminated clothing before reuse.

RESPIRATORY PROTECTION:

If exposure limits are exceeded or if irritation is experienced, NIOSH approved respiratory protection should be worn. Ventilation and other forms of engineering controls are the preferred means for controlling chemical exposures.

09 ---- Section 09 Physical and Chemical Properties ----

BOILING POINT: ..... 26.7 - 226.7 C (80 - 440 F)  
 SPECIFIC GRAVITY: ..... 0.72 - 0.74 @ 60 F  
 MELTING POINT: ..... NE  
 % VOLATILE: ..... 100 @ 437 F  
 VAPOR PRESSURE: ..... 760 MM HG @ 100 F  
 EVAPORATION RATE (WATER=1): ..... >1  
 VAPOR DENSITY (AIR=1): ..... 1.2  
 VISCOSITY: ..... NE  
 % SOLUBILITY IN WATER: ..... NEGLIGIBLE  
 OCTANOL/WATER PARTITION COEFFICIENT: .. NE  
 POUR POINT: ..... NE  
 pH: ..... NA  
 APPEARANCE/ODOR: ..... CLEAR TO AMBER LIQUID WITH A STRONG HYDROCARBON ODOR.

10 ---- Section 10 Stability and Reactivity ----

REACTIVITY:  
Stable.

STABILITY/INCOMPATIBILITY:  
Stable. Avoid contact with strong oxidizers.

HAZARDOUS REACTIONS/DECOMPOSITION PRODUCTS:  
Combustion may produce CO, CO2 and reactive hydrocarbons.

11 ---- Section 11 Toxicological Information ----

ACUTE TOXICITY:

Oral:

Human LDLo = approximately 10-30 g (13.9-41.7 ml).

Rat LD50 = 18.75 ml/kg.

Inhalation:

Chronic inhalation studies on rats and mice indicate increasing risk of developing tumors (cancer) as the inhalation dose increases.

Dermal:

Human LD50 = >5 ml/kg.

Rabbit LD50 = >2 ml/kg. One-fourth of females dead @ 5 ml/kg.

REPRODUCTIVE TOXICITY:

Toluene:

Toluene is an experimental teratogen/reproductive toxicant.

Xylene:

Xylene is an experimental teratogen/reproductive toxicant.

Benzene:

Benzene is a reproductive toxicant only at doses that are maternally toxic, based on tests with animals.

Ethylbenzene:

Ethylbenzene is an experimental teratogen.

Ethanol:

Ethanol is an experimental teratogen/reproductive toxicant. Human female fertility has been affected by ingestion, intravenous and intrauterine routes. Effects on human newborns have included changes in apgar score and other neonatal measures.

**Methyl tert-butyl ether (MTBE):**

MTBE is an experimental teratogen/reproductive toxicant only at doses that are maternally toxic, based on tests with animals.

**GENETIC EFFECTS:**

Similar process streams have been shown to be positive in mutagenicity studies.

**Benzene:**

Mutagenic and clastogenic in mammalian and non-mammalian test systems.

**Methyl tert-butyl ether (MTBE):**

Laboratory mutagenicity studies have had conflicting results.

**CARCINOGENICITY:**

IARC has determined that there is limited evidence for the carcinogenicity of gasoline in experimental animals. An additional determination was made by IARC that there is inadequate evidence for the carcinogenicity of gasoline in humans (IARC Class 2B).

**Benzene:**

Benzene is carcinogenic to laboratory animals when given by intubation or by inhalation. There is an association between occupational exposure to benzene and human leukemia. IARC has determined that there is sufficient evidence of carcinogenicity in experimental animals and humans (IARC Class-1); NTP--Known carcinogen; ACGIH--Suspected carcinogen.

**SPECIAL TOXIC EFFECTS:**

**Benzene:**

Chronic exposure affects the hematopoietic system causing blood disorders including anemia and pancytopenia.

12 ---- Section 12 Ecological Information ----

Not applicable.

13 ---- Section 13 Disposal Considerations ----

**WASTE DISPOSAL:**

This substance, when discarded or disposed of, is not specifically listed as a hazardous waste in Federal regulations; however it is characteristically hazardous under the definitions of ignitability and toxicity according to Federal definitions (40 CFR 261). Federal regulations in 40 CFR 262, 263, 264, 268 and 270 apply. Additionally, it could be designated as hazardous according to state regulations. This substance could also become a hazardous waste if it is mixed with or comes in contact with a hazardous waste. Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate or otherwise inappropriate.

If discarded in its original formulation, this material would have the EPA hazardous waste number D001.

The transportation, storage, treatment, and disposal of this waste material must be conducted in compliance with all applicable Federal, state, and local regulations.

14 ---- Section 14 Transport Information ----

D.O.T. PROPER SHIPPING NAME (49 CFR 172.101): Gasoline  
 D.O.T. HAZARD CLASS (49 CFR 172.101) : 3  
 UN/NA CODE (49 CFR 172.101) : UN1203  
 BILL OF LADING DESCRIPTION (49 CFR 172.202) : Gasoline, 3, UN1203, PG II  
 D.O.T. LABELS REQUIRED (49 CFR 172.101) : Flammable Liquid  
 D.O.T. PLACARDS REQUIRED (49 CFR 172.504) : Flammable

15 ---- Section 15 Regulatory Information ----

SARA TITLE III INFORMATION:

Listed below are the hazard categories for the Superfund Amendments and Reauthorization Act (SARA) Section 311/312 (40 CFR 370):

Immediate Hazard: X  
 Delayed Hazard: X  
 Fire Hazard: X  
 Pressure Hazard: -  
 Reactivity Hazard: -

SARA 313 REPORTABLE CHEMICALS:

This material contains one or more of the following SARA TITLE III, Section 313 Reportable Chemicals: toluene, xylene, benzene, 1, 2, 4-trimethylbenzene, ethylbenzene, cyclohexane, methyl tert-butyl ether.

ADDITIONAL ENVIRONMENTAL REGULATORY INFORMATION:

This material contains a mixture of substances, some of which are listed as toxic pollutants in 40 CFR 122.21, Appendix D, Tables II/III/V. Any unusual introduction of this product into the facility's process streams, storm water and/or waste water could result in the violation of U.S. Federal Law. Facilities must notify the USEPA as soon as they know, or have reason to believe, that any activity has occurred, or will occur, which would result in discharge of a toxic pollutant which is not regulated in the facility's NPDES permit. Notification levels are described in 40 CFR 122.42(a)(1) and (2). Refer to Section 6 of this MSDS (Accidental Release Measures) for additional regulatory requirements.

Contains Benzene. Consult OSHA Standard 1910.1028. Initial air monitoring should be conducted to determine if exposures are above 0.5 ppm action limit or 1 ppm PEL. If exposures are above, OSHA requirements apply for training, medical surveillance, personal/protective equipment, regulated areas, etc.

This product contains ingredient(s) known to the State of California to cause cancer, birth defects or other reproductive harm.

This product contains chemicals which are listed on the New Jersey Worker and Community Right-to-Know Hazardous Substance List.

This product contains chemicals which are listed on the Massachusetts List of Hazardous Substances.

This product contains chemicals which are listed on the Pennsylvania Hazardous Substance List.

There may be additional specific regulations at the local, regional or state level that pertain to this material.

16 ---- Section 16 Other Information ----

Symbols, Abbreviations and Notations:

ACGIH = American Conference of Governmental Industrial Hygienists  
 DOT = US Department of Transportation  
 g/kg = Grams per kilogram of body weight  
 IARC = International Agency for Research on Cancer Monographs  
 IDLH = Immediately Dangerous to Life and Health

INA = Information Not Available  
LEL = Lower Explosive Limit  
mg/kg = Milligrams per kilogram  
mg/m<sup>3</sup> = Milligrams per cubic meter of air  
mm Hg = Millimeters of mercury  
N = No, Y = Yes  
NA = Not Applicable  
NE = Not Established  
NRG = Not Regulated  
NTP = National Toxicology Program  
OSHA = Occupational Safety and Health Administration  
PEL = Permissible Exposure Limit  
REL = Recommended Exposure Limit  
ppm = Parts per million  
RTECS = Registry of Toxic Effects of Chemical Substances  
SARA = Superfund Amendments and Reauthorization Act  
STEL = Short-Term Exposure Limit  
TLV = Threshold Limit Value  
TWA = Time-Weighted Average  
UEL = Upper Explosive Limit  
WHMIS = Workplace Hazardous Materials Information Systems

**NOTICE:**

The information presented herein is based on data considered to be accurate as of the date of preparation of this Material Safety Data Sheet. However, no warranty or representation, express or implied, is made as to the accuracy or completeness of the foregoing data and safety information, nor is any authorization given or implied to practice any patented invention without a license. In addition, no responsibility can be assumed by vendor for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices, or from any hazards inherent in the nature of the product.