



## Safety Data Sheet

24 Hour Emergency Telephone: CHEMTREC 800-424-9300

### 1. Identification

Product Identifier: E-85  
Synonyms: Fuel Ethanol  
Preparation/Revision date: 14 November 2018

Recommended use: Motor Fuel  
Recommended restrictions: None known

Manufacturer / Supplier Sprague Operating Resources LLC  
185 International Drive  
Portsmouth, NH 03801  
603-431-1000

Emergency telephone number 1-800-424-9300 CHEMTREC (USA)

### 2. Hazard(s) Identification

Classification of the Substance or Mixture:

Flammable liquids - Category 2  
Skin corrosion/irritation - Category 2  
Eye corrosion/irritation - Category 2  
Germ cell mutagenicity - Category 1B  
Carcinogenicity - Category 1B  
Reproductive toxicity - Category 2  
Specific target organ toxicity, single exposure - Category 3 (respiratory)  
Specific target organ toxicity, single exposure - Category 3 (narcotic effects)  
Specific target organ toxicity, repeated exposure - Category 2  
Aspiration hazard - Category 1  
Hazardous to the aquatic environment, long-term hazard - Category 2

#### Label elements:

Hazard pictograms:





## Safety Data Sheet

24 Hour Emergency Telephone: CHEMTREC 800-424-9300

Signal word: **Danger**

Hazard statements:

- H225 – Highly flammable liquid and vapor
- H304 – May be fatal if swallowed and enters airways
- H315 – Causes skin irritation
- H319 – Causes serious eye irritation
- H335 – May cause respiratory irritation
- H336 – May cause drowsiness or dizziness
- H340 – May cause genetic defects
- H350 – May cause cancer
- H361 – Suspected of damaging fertility or the unborn child
- H373 – May cause damage to organs through prolonged or repeated exposure
- H411 – Toxic to aquatic life with long lasting effects

Precautionary statements:

- P201 – Obtain special instructions before use.
- P210 – Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- P233 – Keep container tightly closed.
- P240 – Ground/bond container and receiving equipment.
- P241 – Use explosion-proof electrical/ventilating/lighting equipment pursuant to applicable electrical code.
- P242 – Use only non-sparking tools.
- P243 – Take precautionary measures against static discharge.
- P260 – Do not breathe dust/fume/gas/mist/vapors/spray.
- P264 – Wash thoroughly after handling.
- P271 – Use only outdoors or in a well-ventilated area.
- P273 – Avoid release to the environment.
- P280 – Wear protective gloves/protective clothing/eye protection/face protection.
- P301+P310 – IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
- P305+P351+P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P302+P352 – IF ON SKIN: Wash with plenty of soap and water.
- P304+P340 – IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.
- P308+P313 – IF exposed or concerned: Get medical advice/attention.
- P332+P313 – If skin irritation occurs: Get medical advice/ attention.
- P337+P313 – If eye irritation persists: Get medical advice/attention
- P312 – Call a POISON CENTER or doctor/physician if you feel unwell.
- P303+361+353 – If on skin (or hair): Take off immediately all contaminated clothing. Rinse with water.
- P331 – Do NOT induce vomiting.
- P362 – Take off contaminated clothing and wash before reuse.

**E-85**

Preparation Date: 14 November 2018

Page 2 of 17



## Safety Data Sheet

24 Hour Emergency Telephone: CHEMTREC 800-424-9300

P370+P378 – In case of fire: Use firefighting foam or other appropriate media for Class B fires to extinguish.

P403+P233+P235 – Store in a well-ventilated place. Keep container tightly closed. Keep cool.

P405 – Store locked up.

P501 – Dispose of contents/container in accordance with local/regional/national/international regulation.

### Other hazards:

Toxic fumes may be released in fire situations.

Shipping hazard.

### 3. Composition/Information on Ingredients

Substances: Not Applicable

Mixture

Name	CAS Number	Percent	Classification (GHS-US)
Ethyl alcohol	64-17-5	80-100	H225, H319
Gasoline	86290-81-5	10-20	H304, H340, H350
Toluene	108-88-3	0-8	H225, H315, H304, H336, H373, H361d
Hexane (Other Isomers)	96-14-0	0-8	H225, H315, H304, H336, H411
Xylene (o, m, p isomers)	1330-20-7	0-8	H226, H312, H315, H332
Octane (All isomers)	111-65-9	0-8	H225, H315, H304, H336, H400, H410
1,2,4, Trimethylbenzene	95-63-6	0-2	H226, H315, H319, H332, H335, H411
n-Heptane	142-82-5	0-2	H225, H315, H304, H336, H400, H410
Pentane	109-66-0	0-2	H225, H304, H336, H411
Cumene	98-82-8	0-2	H226, H304, H335, H411
Naphthalene	91-20-3	0-2	H302, H351, H400, H410
n-Decane	124-18-5	0-2	H226, H304
n-Octadecane	2885-00-9	0-2	H315, H319, H335
Ethylbenzene	100-41-4	0-2	H225, H332, H304, H373
Benzene	71-43-2	0-2	H225, H315, H319, H304, H340, H350, H372
n-Hexane	110-54-3	0-2	H225, H315, H304, H336, H373, H411, H361f
Cyclohexane	110-82-7	0-2	H225, H315, H304, H336, H400, H410

Per CFR §1910.1200, the specific chemical identity and/or exact percentages (concentration) of composition has been withheld as a trade secret.



## Safety Data Sheet

24 Hour Emergency Telephone: CHEMTREC 800-424-9300

### 4. First-Aid Measures

**General Information:** If potential for exposure exists, refer to Section 8 for specific personal protective equipment.

**Inhalation:** Remove person to fresh air. If person is not breathing, ensure an open airway and provide artificial respiration. If necessary, provide additional oxygen once breathing is restored if trained to do so. Seek medical attention immediately.

**Skin contact:** Remove contaminated clothing and shoes. Wash off immediately with soap and plenty of water. Get medical attention if irritation develops or persists. Wash clothing separately before reuse. Destroy or thoroughly clean contaminated shoes. If high-pressure injection under the skin occurs, always seek medical attention.

**Eye contact:** If present, remove contact lenses. In case of contact with eyes, immediately flush with clean, low-pressure water for at least 15 minutes. Hold eyelids open to ensure adequate flushing. Seek medical attention.

**Ingestion:** DO NOT INDUCE VOMITING. Aspiration Hazard. Do not give liquids. Obtain immediate medical attention. If spontaneous vomiting occurs, lean victim forward to reduce the risk of aspiration. Small amounts of material, which enter the mouth, should be rinsed out until the taste is dissipated.

**Notes to Physician:** Irritation from skin exposure may aggravate existing open wounds, skin disorders, and dermatitis (rash). Chronic respiratory disease, liver or kidney dysfunction, or pre-existing central nervous system disorders may be aggravated by exposure.

#### Most important symptoms

**and effects, both acute and delayed:** Irritation of nose and throat. Irritation of eyes and mucous membranes. Skin irritation. Unconsciousness. Corneal damage. Narcosis. Cyanosis (blue tissue condition, nails, lips, and/or skin). Decrease in motor functions. Behavioral changes. Edema. Liver enlargement. Jaundice. Conjunctivitis. Proteinuria. Defatting of the skin. Rash.

**Indication of any immediate medical attention and special treatment needed:** If ingested, do NOT induce vomiting, as this may cause chemical pneumonia (fluid in the lungs). Application of epinephrine may cause cardiac arrhythmia in persons exposed to large quantities of hydrocarbon vapor or due to skin absorption. Observe for development of symptoms leading to cardiac arrhythmia. Contaminated clothing, including shoes may present a fire hazard and should be discarded.

### 5. Fire-Fighting Measures

**Suitable extinguishing media:** Water spray. Water fog. Foam. Dry chemical powder. Carbon dioxide (CO<sub>2</sub>).

**Unsuitable extinguishing media:** Do not use a solid water stream as it may scatter and spread fire.



## Safety Data Sheet

24 Hour Emergency Telephone: CHEMTREC 800-424-9300

**Special hazards arising from the substance or mixture:** Vapors may be ignited rapidly when exposed to heat, spark, open flame or other source of ignition. Flowing product may be ignited by self-generated static electricity. When mixed with air and exposed to an ignition source, flammable vapors can burn in the open or explode in confined spaces. Being heavier than air, vapors may travel long distances to an ignition source and flash back. Runoff to sewer may cause fire or explosion hazard. Alcohol flames may not be visible.

Combustion may produce smoke, carbon monoxide and other products of incomplete combustion.

**Special protective equipment for firefighters:** Wear positive-pressure self-contained breathing apparatus (SCBA) and protective firefighting clothing (includes firefighting helmet, coat, trousers, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

**Special firefighting procedures:** Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and facemask. Withdraw immediately in case of rising sound from venting safety devices or any discoloration of tanks due to fire. Fight fire from maximum distance, use unmanned hose holders, or monitor nozzles. Move containers from fire area if you can do it without risk. In the event of fire, cool tanks with water spray. Cool containers exposed to flames with water until well after the fire is out. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn. Vapors may form explosive air mixtures even at room temperature. Prevent buildup of vapors or gases to explosive concentrations. Some of these materials, if spilled, may evaporate leaving a flammable residue. Water runoff can cause environmental damage. Use compatible foam to minimize vapor generation as needed.

**Special remarks on fire hazards:** Use water spray to cool unopened containers. Highly flammable liquid and vapor. Containers may explode when heated.

### 6. Accidental Release Measures

#### Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel:** Keep unnecessary personnel away. Local authorities should be advised if significant spills cannot be contained. Keep upwind. Keep out of low areas. Ventilate closed spaces before entering. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. See Section 8 for Personal Protective Equipment.

**For emergency responders:** Secure all ignition sources (flame, spark, hot work, hot metal, etc.). Consider wind direction; stay upwind and uphill, if possible. Evaluate the direction of product travel, diking, sewers, etc. to confirm spill areas. Do not touch or walk-through spilled material.

Highly flammable material, even small spills may pose a fire danger for emergency responders. Due to high vapor density, flammable / toxic vapors may be present in low-lying areas, dikes, pits, drains, or trenches. Ventilate the area.



## Safety Data Sheet

24 Hour Emergency Telephone: CHEMTREC 800-424-9300

Use of non-sparking tools and intrinsically safe equipment is recommended. Potential for flammable atmosphere should be monitored using a combustible gas indicator positioned downwind of the spill area. See Sections 2 and 7 for further hazard warnings and handling instructions.

**Environmental Precautions:** Stop the spill to prevent environmental release if it can be done safely. Product may be toxic to aquatic life. Take action to isolate environmental receptors including drains, storm sewers and natural water bodies. Keep on impervious surface if at all possible. Use water sparingly to prevent product from spreading. Foam and absorbents may be used to reduce / prevent airborne release. See Section 12, Ecological Information.

**Methods and materials for containing and cleaning up:** Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Stop leak if you can do so without risk. This material is a water pollutant and should be prevented from contaminating soil or from entering sewage and drainage systems and bodies of water. Dike the spilled material, where this is possible. Prevent entry into waterways, sewers, basements or confined areas. Use non-sparking tools and explosion-proof equipment. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. See Section 13, Disposal Considerations, for additional information.

**Reference to other Sections:** Section 8, Section 12, Section 13

### 7. Handling and Storage

**Precautions for safe handling:** Eliminate sources of ignition. Avoid spark promoters. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Wear personal protective equipment. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with eyes, skin, and clothing. Do not taste or swallow. Do not siphon by mouth. Avoid prolonged exposure.

Use only with adequate ventilation. Wash thoroughly after handling. The product is extremely flammable, and explosive vapor/air mixtures may be formed even at normal room temperatures. DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. When using, do not eat, drink or smoke. Promptly remove contaminated clothing and laundry before reuse. Use care when laundering to prevent the formation of flammable vapors which could ignite via washer or dryer. Avoid release to the environment. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

**Conditions for safe storage, including any incompatibilities:** Flammable liquid storage. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. The pressure in sealed containers can increase under the influence of heat. Keep container tightly closed in a cool, well-ventilated place. Keep away from food, drink and animal feed. Keep out of the reach of children.

### 8. Exposure Controls/Personal Protection



## Safety Data Sheet

24 Hour Emergency Telephone: CHEMTREC 800-424-9300

### 8.1 Control parameters

Exposure limits are listed below, if they exist.

Chemical Name	CASRN	OSHA	NIOSH	ACGIH
Ethyl alcohol	64-17-5	PEL: 1900 mg/m <sup>3</sup> (1000 ppm)	TWA: 1900 mg/m <sup>3</sup> (1000 ppm)	STEL: 1000 ppm
Gasoline	86290-81-5	-	-	STEL: 500 ppm TWA: : 300 ppm
Toluene	108-88-3	-	STEL: 560 mg/m <sup>3</sup> (150 ppm) TWA: 375 mg/m <sup>3</sup> (100 ppm)	TWA: 20 ppm
Hexane (Other Isomers)	96-14-0	-	Ceiling: 1800 mg/m <sup>3</sup> (510 ppm) TWA: 350 mg/m <sup>3</sup> (100 ppm)	STEL: 1000 ppm TWA: 500 ppm
Xylene (o, m, p isomers)	1330-20-7	PEL: 435 mg/m <sup>3</sup> (100 ppm)	STEL: 655 mg/m <sup>3</sup> (150 ppm) TWA: 435 mg/m <sup>3</sup> (100 ppm)	STEL: 150 ppm TWA: 100 ppm
Octane (All isomers)	111-65-9	PEL: 2350 mg/m <sup>3</sup> (500 ppm)	Ceiling: 1800 mg/m <sup>3</sup> (385 ppm) TWA: 350 mg/m <sup>3</sup> (75 ppm)	TWA: 300 ppm
1,2,4, Trimethylbenzene	95-63-6	-	TWA: 125 mg/m <sup>3</sup> (25 ppm)	TWA: 25 ppm
n-Heptane	142-82-5	PEL: 2000 mg/m <sup>3</sup> (500 ppm)	Ceiling: 1800 mg/m <sup>3</sup> (440 ppm) TWA: 350 mg/m <sup>3</sup> (85 ppm)	STEL: 500 ppm TWA: 400 ppm
Pentane	109-66-0	PEL: 2950 mg/m <sup>3</sup> (1000 ppm)	Ceiling: 1800 mg/m <sup>3</sup> (610 ppm) TWA: 350 mg/m <sup>3</sup> (120 ppm)	TWA: 600 ppm
Cumene	98-82-8	PEL: 245 mg/m <sup>3</sup> (50 ppm)	TWA: 245 mg/m <sup>3</sup> (50 ppm)	TWA: 50 ppm
Ethylbenzene	100-41-4	PEL: 435 mg/m <sup>3</sup> (100 ppm)	STEL: 545 mg/m <sup>3</sup> (125 ppm) TWA: 435 mg/m <sup>3</sup> (100 ppm)	TWA: 20 ppm
Benzene	71-43-2	STEL: 5 ppm TWA: 1ppm	STEL: 1 ppm TWA: 0.1 ppm	STEL: 2.5 ppm TWA: 0.5 ppm
n-Hexane	110-54-3	PEL: 1800 mg/m <sup>3</sup> (500 ppm)	TWA: 180 mg/m <sup>3</sup> (50 ppm)	TWA: 50 ppm
Cyclohexane	110-82-7	PEL: 1050 mg/m <sup>3</sup> (300 ppm)	TWA: 1050 mg/m <sup>3</sup> (300 ppm)	TWA: 100 ppm
Naphthalene	91-20-3	PEL: 50 mg/m <sup>3</sup> (10 ppm)	TWA: 50 mg/m <sup>3</sup> (10 ppm) STEL: 75 mg/m <sup>3</sup> (15 ppm)	PEL: 52 mg/m <sup>3</sup> (10 ppm)
n-Octadecane	2885-00-9	-	REL-C: 5.9 mg/m <sup>3</sup> (0.5 ppm)	-

### Consult local authorities for acceptable exposure limits

#### Exposure Controls

**Appropriate engineering controls:** Provide adequate general and local exhaust ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Use explosion-proof equipment.

#### Individual Protective Measures



## Safety Data Sheet

24 Hour Emergency Telephone: CHEMTREC 800-424-9300

**General Information:** Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations.

**Eye/face protection:** Use safety glasses with side shields. If splash potential exists, wear full-face shield and/or chemical goggles.

### Skin protection

**Hand protection:** Wear protective gloves. Be aware that the liquid may penetrate the gloves. Frequent change is advisable. NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

**Other protection:** Wear chemical-resistant, impervious gloves. Full body suit and boots are recommended when handling large volumes or in emergency situations. Flame retardant protective clothing is recommended.

**Other:** Avoid skin and eye contact.

**Respiratory protection:** Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workplace exposure limits for product or components are exceeded, NIOSH approved equipment should be worn. Proper respirator selection should be determined by adequately trained personnel, based on the contaminants, the degree of potential exposure and published respiratory protection factors. This equipment should be available for non-routine and emergency use.

**Thermal hazards:** Wear appropriate thermal protective clothing, when necessary.

**Hygiene measures:** Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Avoid contact with eyes and skin.





## Safety Data Sheet

24 Hour Emergency Telephone: CHEMTREC 800-424-9300

### 9. Physical and Chemical Properties

#### Information on basic physical and chemical properties

Form	Liquid	Explosive properties	No Data Available
Color	<0.5 (ASTM Scale)	Explosive limit	No Data Available
Odor	Non-offensive	Vapor pressure	No Data Available
Odor threshold	0.2-0.4 ppm	Vapor density	No Data Available
pH	Not applicable	Evaporation rate	No Data Available
Melting/freezing point	< -80 °C	Relative density	No Data Available
Boiling point, initial boiling point and boiling range	97.9 °C	Partition coefficient (n-octanol/water)	2-7
Flash point	20 °C	Solubility (water)	No Data Available
Auto-ignition temperature	>280 °C	Decomposition temperature	No Data Available
Flammability (solid, gas)	No Data Available	Bulk density	0.7747 g/cm <sup>3</sup>
Flammability limit-lower%	1.4	Viscosity	2.979
Flammability limit-upper%	7.6	VOC (weight %)	No Data Available
Oxidizing properties	No Data Available	Percent volatile	No Data Available

**Other Information:** No relevant additional information available

### 10. Stability and Reactivity

**Reactivity:** None known

**Chemical stability:** Stable under recommended storage conditions. Flammable liquid. See Storage, Section 7.

**Possibility of hazardous reactions:** Polymerization will not occur.

**Conditions to avoid:** Heat, flames and sparks. Ignition sources. Contact with incompatible materials. Do not pressurize, cut, weld, braze, solder, drill, grind or expose empty containers to heat, flame, sparks, static electricity, or other sources of ignition; they may explode and cause injury or death.

**Incompatible materials:** Avoid contact with oxidizing materials.

**Hazardous decompositions products:** Carbon monoxide, carbon dioxide and non-combusted hydrocarbons (smoke). The burning of any hydrocarbon as a fuel in an area without adequate ventilation may result in hazardous levels of combustion products, including carbon monoxide, carbon dioxide and non-combusted hydrocarbons resulting in inadequate oxygen levels, which may cause unconsciousness, suffocation, and death. Contact with nitric and sulfuric acids will form nitrocresols that can decompose violently.



## Safety Data Sheet

24 Hour Emergency Telephone: CHEMTREC 800-424-9300

### 11. Toxicological Information

#### General information on likely routes of exposure

**Ingestion:** Swallowing or vomiting of the liquid may result in aspiration into the lungs.

**Inhalation:** In high concentrations, mists/vapors may irritate throat and respiratory system and cause coughing. May cause drowsiness or dizziness.

**Skin contact:** Causes skin irritation. Prolonged contact may cause dryness of the skin.

**Eye contact:** Causes eye irritation.

**Symptoms:** Irritation of nose and throat. Irritation of eyes and mucous membranes. Skin irritation. Unconsciousness. Corneal damage. Narcosis. Cyanosis (blue tissue condition, nails, lips, and/or skin). Decrease in motor functions. Behavioral changes. Edema. Liver enlargement. Jaundice. Conjunctivitis. Proteinuria. Defatting of the skin. Rash.

#### Information on toxicological effects

Acute Toxicity: No data were identified for this product.

Chemical Name	CASRN	Oral	Dermal	Inhalation
Ethyl alcohol	64-17-5	-	-	LC50 = 30000 mg/m <sup>3</sup>
Toluene	108-88-3	LD50 = 2600 g/kg	LD50 = 14.1 mL/kg	LC50 = 8000 mg/L (4h)
Xylene (o, m, p isomers)	1330-20-7	LD50 = 4300 mg/kg	-	
Octane (All isomers)	111-65-9	-	-	LC50 = 118 mg/L (4h)
1,2,4, Trimethylbenzene	95-63-6	LD50 = 6000 mg/kg	LD50 > 3160 mg/kg	LC50 > 2000 mg/L (48h)
n-Heptane	142-82-5	-	-	LC50 = 103 mg/L (4h)
Pentane	109-66-0	-	-	LC50 = 364 mg/L (4h)
Cumene	98-82-8	LD50 = 1400 mg/kg		LC50 = 8000 mg/L (4h)
Ethylbenzene	100-41-4	LD50 = 5460 mg/kg	LD50 > 5000 mg/kg	-
Benzene	71-43-2	LD50 = 3306 mg/kg	-	-
n-Hexane	110-54-3	LD50 = 28710 mg/kg	-	-
Cyclohexane	110-82-7	LD50 = 12705 mg/kg	-	-

**Serious Eye Damage/Irritation:** Causes eye irritation.

**Skin corrosion/Irritation:** Causes skin irritation.

**Respiratory/Skin Sensitization:** Based on available data, no sensitization is expected.

**Germ Cell Mutagenicity:** May cause genetic defects.

In in-vitro experiments, neither benzene, toluene nor xylene changed the number of sister-chromatid exchanges (SCEs) or the number of chromosomal aberrations in human lymphocytes. However, toluene and xylene caused a significant



## Safety Data Sheet

24 Hour Emergency Telephone: CHEMTREC 800-424-9300

cell growth inhibition which was not observed with benzene in the same concentrations. In in-vivo experiments, toluene changed the number of sister-chromatid exchanges (SCEs) in human lymphocytes. Toluene may cause heritable genetic damage.

### Carcinogenicity:

Chemical Name	CASRN	IARC	NTP	OSHA
Benzene	71-43-2	Group 1	Known to be a human carcinogen	Known to be a human carcinogen
Cumene	98-82-8	Group 2B	-	-
Ethylbenzene	100-41-4	Group 2B	-	-
Gasoline	86290-81-5	Group 2B	-	-
Toluene	108-88-3	Group 3	-	-
Xylene	1330-20-7	Group 3	-	-

**Reproductive Toxicity:** May damage/Suspected of damaging fertility or the unborn child. Benzene, xylene and toluene have demonstrated animal effects of reproductive toxicity. Animal studies of benzene have shown testicular effects, alterations in reproductive cycles, chromosomal aberrations and embryo/fetotoxicity. Ethanol has demonstrated human effects of reproductive toxicity.

**STOT – Single Exposure:** Single over-exposure likely to cause central nervous system effects (dizziness and drowsiness); excessive exposure could cause paralysis or cardiac arrhythmia.

**STOT – Repeated Exposure:** Excessive exposure may cause irritations to the nose, throat, lungs and respiratory tract. Central nervous system (brain) effects may include headache, dizziness, loss of balance and coordination, unconsciousness, coma, respiratory failure, and death.

**Aspiration Hazard:** May be fatal if swallowed and enters airways. Aspiration may result in chemical pneumonia (fluid in the lungs), severe lung damage, respiratory failure and even death.



## Safety Data Sheet

24 Hour Emergency Telephone: CHEMTREC 800-424-9300

### 12. Ecological Information

#### Toxicity / Aquatic ecotoxicity

**Acute toxicity:** Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Chemical Name	CASRN	Fish (mg/L)	Invertebrate (mg/L)	Algae (mg/L)
Ethyl alcohol	64-17-5	>100	857	275
Toluene	108-88-3	6.9	5.5	-
Xylene (o, m, p isomers)	1330-20-7	8	-	-
1,2,4, Trimethylbenzene	95-63-6	7.2	-	-
n-Heptane	142-82-5	4924	-	-
Cumene	98-82-8	2.7	3.55	-
Ethylbenzene	100-41-4	4	1	-
Benzene	71-43-2	7.2	8.8	-
n-Hexane	110-54-3	2.1	-	-
Cyclohexane	110-82-7	4	-	-

**Persistence and degradability:** Not expected to persist in the environment.

**Bioaccumulative potential:** Not available

**Mobility:** Not available

**Results of PBT and vPvB assessment:** Not a PBT or vPvB material

**Other adverse effects:** Avoid release to the environment.

### 13. Disposal Considerations

**Disposal instructions:** Dispose of in accordance with all applicable regulations. This material and its container must be disposed of as hazardous waste. Dispose of this material and its container to hazardous or special waste collection point. Incinerate the material under controlled conditions in an approved incinerator. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container.

**Hazardous waste code:** D001: Waste Flammable material with a flash point <140 °F

D018: Waste Benzene

#### **US RCRA Hazardous Waste U List: Reference**

Benzene (CAS 71-43-2) U019

Cumene (CAS 98-82-8) U055

Cyclohexane (CAS 110-82-7) U056

Toluene (CAS 108-88-3) U220

Xylene (o, m, p isomers) (CAS 1330-20-7) U239



## Safety Data Sheet




24 Hour Emergency Telephone: CHEMTREC 800-424-9300

**Waste from residues/unused products:** Empty containers should be taken to an approved waste handling site for recycling or disposal. Personnel handling waste containers should follow precautions provided in this document.

**Disposal methods/information:** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local, regional, national, international regulations.

**Disposal should be in accordance with applicable regional, national and local laws and regulations.**

### 14. Transport Information

	DOT Classification	IMDG	IATA
<b>UN Number</b>	UN3475	UN3475	UN3475
<b>UN Proper Shipping Name</b>	Ethanol and Gasoline Mixture	ETHANOL AND GASOLINE MIXTURE	Ethanol and Gasoline Mixture
<b>Transport hazard class(es)</b>	3 	3 	3 
<b>Packing Group</b>	II	II	II
<b>Environmental hazards</b>	No.	Yes.	Yes. The environmentally hazardous substance mark is not required

**Special precautions for user:** Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**Transport in bulk according to Annex II MARPOL73/78 and the IBC Code:** Not available

The transport regulation may vary based on the country of use. Check for the appropriate regulations in the country of transport or usage of this product.



## Safety Data Sheet

24 Hour Emergency Telephone: CHEMTREC 800-424-9300

### 15. Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

**OSHA Hazard Communication Standard:** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200

**Superfund Amendments and Reauthorization Act (SARA) of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312**

Contains SARA 311/312 listed substances

**Superfund Amendments and Reauthorization Act (SARA) of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313**

Chemical Name	CASRN	% by weight
Toluene	108-88-3	0-8
Xylene (o, m, p isomers)	1330-20-7	0-8
1,2,4, Trimethylbenzene	95-63-6	0-2
Cumene	98-82-8	0-2
Ethylbenzene	100-41-4	0-2
Benzene	71-43-2	0-2
n-Hexane	110-54-3	0-2
Cyclohexane	110-82-7	0-2

#### United States (US) TSCA Inventory (TSCA)

All components are on the U.S. EPA TSCA Inventory List.

#### US OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Benzene (CAS 71-43-2): Cancer, Central nervous system, Blood, Aspiration, Skin, Eye, Respiratory tract irritation, Flammability

#### CERCLA Hazardous Substance List (40 CFR 302.4)

Benzene (CAS 71-43-2)	LISTED
Cumene (CAS 98-82-8)	LISTED
Cyclohexane (CAS 110-82-7)	LISTED
Ethanol (CAS 64-17-5)	LISTED
Ethylbenzene (CAS 100-41-4)	LISTED
Gasoline (CAS 86290-81-5)	LISTED
Hexane (Other Isomers) (CAS 96-14-0)	LISTED
n-Heptane (CAS 142-82-5)	LISTED
n-Hexane (CAS 110-54-3)	LISTED

E-85

Preparation Date: 14 November 2018

Page 14 of 17



## Safety Data Sheet

24 Hour Emergency Telephone: CHEMTREC 800-424-9300

Octane (All isomers) (CAS 111-65-9)	LISTED
Pentane (CAS 109-66-0)	LISTED
Toluene (CAS 108-88-3)	LISTED
Xylene (o, m, p isomers) (CAS 1330-20-7)	LISTED

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - No

Delayed Hazard - No

Fire Hazard - No

Pressure Hazard - No

Reactivity Hazard – No

### Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Benzene (CAS 71-43-2)

Cumene (CAS 98-82-8)

Ethylbenzene (CAS 100-41-4)

n-Hexane (CAS 110-54-3)

Toluene (CAS 108-88-3)

Xylene (o, m, p isomers) (CAS 1330-20-7)

### Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Pentane (CAS 109-66-0)

### Clean Water Act (CWA) 311

Benzene (CAS 71-43-2)

Cyclohexane (CAS 110-82-7)

Ethylbenzene (CAS 100-41-4)

n-Hexane (CAS 110-54-3)

Toluene (CAS 108-88-3)

Xylene (o, m, p isomers) (CAS 1330-20-7)

This material is classified as an oil under Section 311 of the Clean Water Act (CWA) and the Oil Pollution Act of 1990 (OPA). Discharges or spills which produce a visible sheen on waters of the United States, their adjoining shorelines, or into conduits leading to surface waters must be reported to the EPA's National Response Center at (800) 424-8802.

### Safe Drinking Water Act

Not regulated.

### Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2))

Toluene (CAS 108-88-3); Chemical Code Number: 6594

### Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

Toluene (CAS 108-88-3)

### DEA Exempt Chemical Mixtures Code Number

Toluene (CAS 108-88-3) 594

### E-85

Preparation Date: 14 November 2018



## Safety Data Sheet

24 Hour Emergency Telephone: CHEMTREC 800-424-9300

### US Massachusetts RTK - Substance List

1,2,4, Trimethylbenzene (CAS 95-63-6)  
Benzene (CAS 71-43-2)  
Cumene (CAS 98-82-8)  
Cyclohexane (CAS 110-82-7)  
Ethanol (CAS 64-17-5)  
Ethylbenzene (CAS 100-41-4)  
Hexane (Other Isomers) (CAS 96-14-0)  
n-Heptane (CAS 142-82-5)  
n-Hexane (CAS 110-54-3)  
Octane (All isomers) (CAS 111-65-9)  
Pentane (CAS 109-66-0)  
Toluene (CAS 108-88-3)  
Xylene (o, m, p isomers) (CAS 1330-20-7)

### US New Jersey Worker and Community Right-to-Know Act

1,2,4, Trimethylbenzene (CAS 95-63-6)  
Benzene (CAS 71-43-2)  
Cumene (CAS 98-82-8)  
Cyclohexane (CAS 110-82-7)  
Ethanol (CAS 64-17-5)  
Ethylbenzene (CAS 100-41-4)  
n-Heptane (CAS 142-82-5)  
n-Hexane (CAS 110-54-3)  
Octane (All isomers) (CAS 111-65-9)  
Pentane (CAS 109-66-0)  
Toluene (CAS 108-88-3)  
Xylene (o, m, p isomers) (CAS 1330-20-7)

### US Pennsylvania Worker and Community Right-to-Know Law

1,2,4, Trimethylbenzene (CAS 95-63-6)  
Benzene (CAS 71-43-2)  
Cumene (CAS 98-82-8)  
Cyclohexane (CAS 110-82-7)  
Ethanol (CAS 64-17-5)  
Ethylbenzene (CAS 100-41-4)  
Gasoline (CAS 86290-81-5)  
Hexane (Other Isomers) (CAS 96-14-0)  
n-Heptane (CAS 142-82-5)  
n-Hexane (CAS 110-54-3)  
Octane (All isomers) (CAS 111-65-9)  
Pentane (CAS 109-66-0)  
Toluene (CAS 108-88-3)  
Xylene (o, m, p isomers) (CAS 1330-20-7)





## Safety Data Sheet

24 Hour Emergency Telephone: CHEMTREC 800-424-9300

### US Rhode Island Right-to-Know Law

1,2,4, Trimethylbenzene (CAS 95-63-6)  
Benzene (CAS 71-43-2)  
Cumene (CAS 98-82-8)  
Cyclohexane (CAS 110-82-7)  
Ethylbenzene (CAS 100-41-4)  
n-Hexane (CAS 110-54-3)  
Pentane (CAS 109-66-0)  
Toluene (CAS 108-88-3)  
Xylene (o, m, p isomers) (CAS 1330-20-7)

### US - California Proposition 65 - Carcinogens & Reproductive Toxicity: Listed substance(s)

Benzene (CAS 71-43-2)  
Cumene (CAS 98-82-8)  
Ethylbenzene (CAS 100-41-4)  
Toluene (CAS 108-88-3)

## 16. Other Information

### National Fire Protection Association (U.S.A.)



### NFPA Hazard Rating:

4=EXTREME  
3= SERIOUS  
2= MODERATE  
1=SLIGHT  
0=MINIMAL

Effective Date: 11/14/18 – Initial Release

Previous Revisions: Not applicable

**Disclaimer:** This SDS has been prepared in accordance with the Hazard Communication Standard 29 CFR 1910.1200. Information herein is based on data considered to be accurate as of date prepared. No warranty or representation, express or implied, is made as to the accuracy or completeness of this data and safety information. No responsibility can be assumed for any damage or injury resulting from abnormal use, failure to adhere to recommended practices, or from any hazards inherent in the nature of the product.