Safety Data Sheet

Section 1: Identification

Product identifier

Product Name • **Regular Unleaded Gasoline with Ethanol**

Synonyms • Regular Unleaded Gasoline With Alcohol

SDS Number/Grade • 0016NOR001

Relevant identified uses of the substance or mixture and uses advised against

Recommended use • Automotive fuel

Details of the supplier of the safety data sheet

Manufacturer • Northern Tier Energy

301 St. Paul Park Road
St. Paul Park, MN 55071
United States
www.ntenergy.com

Telephone (General) • 651-459-9771

Emergency telephone number

Chemtrec • 800-424-9300

Section 2: Hazard Identification

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

Classification of the substance or mixture

OSHA HCS 2012 •

Flammable Liquids 2
Aspiration 1
Skin Irritation 2
Eye Irritation 2
Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects
Carcinogenicity 1A
Reproductive Toxicity 1B
Specific Target Organ Toxicity Repeated Exposure 1
Specific Target Organ Toxicity Repeated Exposure 2

Label elements

OSHA HCS 2012

DANGER

Hazard statements

- Highly flammable liquid and vapour
  May be fatal if swallowed and enters airways
  Causes skin irritation
  Causes serious eye irritation
  May cause drowsiness or dizziness
  May cause cancer.
  May damage fertility or the unborn child.
  Causes damage to organs through prolonged or repeated exposure.
  May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention

- Obtain special instructions before use.
  Do not handle until all safety precautions have been read and understood.
  Keep away from heat, sparks, open flames and/or hot surfaces. - No smoking.
  Keep container tightly closed.
  Ground and/or bond container and receiving equipment.
  Use explosion-proof electrical/ventilating/lighting/equipment.
  Use only non-sparking tools.
  Take precautionary measures against static discharge.
  Do not breathe mist/vapours/spray.
  Wash thoroughly after handling.
  Do not eat, drink or smoke when using this product.
  Use only outdoors or in a well-ventilated area.
  Wear protective gloves/protective clothing/eye protection/face protection.

Response

- In case of fire: Use appropriate media for extinction.
  IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
  Specific treatment, see supplemental first aid information.
  If skin irritation occurs: Get medical advice/attention.
  Take off contaminated clothing and wash before reuse.
  IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
  Call a POISON CENTER or doctor/physician if you feel unwell.
  IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  If eye irritation persists: Get medical advice/attention.
  IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
  Do NOT induce vomiting.
  IF exposed or concerned: Get medical advice/attention.
  Get medical advice/attention if you feel unwell.

Storage/Disposal

- Store in a well-ventilated place. Keep container tightly closed.
  Keep cool.
  Store locked up.
  Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Other hazards

OSHA HCS 2012

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada

According to: WHMIS

Classification of the substance or mixture

WHMIS

- Flammable Liquids - B2
  Other Toxic Effects - D2A
  Other Toxic Effects - D2B

Label elements

WHMIS

- Flammable Liquids - B2
  Other Toxic Effects - D2A
  Other Toxic Effects - D2B

Other hazards

WHMIS

- In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

Section 3 - Composition/Information on Ingredients

Substances

- Material does not meet the criteria of a substance.

Mixtures

Composition				
Chemical Name	**Identifiers**	**%**	**Classifications According to Regulation/Directive**	**Comments**
Naphtha (petroleum), isomerization	**CAS:**64741-70-4	15% TO 35%	**OSHA HCS 2012:** Not Classified	NDA
Naphtha (petroleum), heavy catalytic reformed	**CAS:**64741-68-0	15% TO 35%	**OSHA HCS 2012:** Skin Irrit. 2	NDA
Hydrocarbons, C3-11, catalytic cracker distillates	**CAS:**68476-46-0	15% TO 35%	**OSHA HCS 2012:** Not Classified	NDA
Toluene	**CAS:**108-88-3	0.9% TO 13.5%	**OSHA HCS 2012:** Flam. Liq. 2; Acute Tox. 4 (Oral); Skin Irrit. 2; Eye Irrit. 2; Muta. 1B; Repr. 2; STOT SE 3: Narc.; STOT RE 1 (CNS/Inhl); Asp. Tox. 1	NDA
Ethanol	**CAS:**64-17-5	5.7% TO 13.5%	**OSHA HCS 2012:** Flam. Liq. 2; Acute Tox. 3; Skin Irrit. 2; Eye Irrit. 2; Muta. 2; STOT SE 3: Narc.	NDA
Full-range alkylate (petroleum) naphtha	**CAS:**64741-64-6	3% TO 12%	**OSHA HCS 2012:** Not Classified	NDA
Butane	**CAS:**106-97-8	0% TO 10%	**OSHA HCS 2012:** Flam. Gas 1; Press. Gas; STOT SE 3: Narc. (Inhalation); Simp. Asphyx.	NDA
Xylene	**CAS:**1330-20-7	1.8% TO 9%	**OSHA HCS 2012:** Flam. Liq. 3; Acute Tox. 4 (Inhl); Skin Irrit. 2; Eye Irrit. 2; Repr. 1B (Inhl); STOT SE 3: Narc.; STOT SE 3: Resp. Irrit.	NDA
1,2,4-Trimethylbenzene	**CAS:**95-63-6	0.9% TO 4.5%	**OSHA HCS 2012:** Flam. Liq. 3; Skin Irrit. 2; Eye Irrit. 2; STOT SE 3: Narc; STOT SE 3: Resp. Irrit. (inhl); Asp. Tox. 1	NDA
Benzene	**CAS:**71-43-2	0.45% TO 3.2%	**OSHA HCS 2012:** Flam. Liq. 2; Acute Tox. 4 (Oral); Acute Tox. 4 (Inhalation); Skin Irrit. 2; Eye Irrit. 2; Muta. 1B (Oral, Inhalation); Carc. 1A (Inhalation); Repr. 2 (Inhalation); STOT SE 3: Narc. (Inhalation); STOT RE 1 (Blood, Bone marrow / Inhalation); Asp. Tox. 1	NDA
Hexane	**CAS:**110-54-3	0% TO 2.7%	**OSHA HCS 2012:** Flam. Liq. 2; Repr. 2; STOT RE 2 - CNS & Nervous System; Eye Irrit. 2; STOT SE 3: Narc. & Resp. Irrit.; Asp. Tox. 1;	NDA
Ethylbenzene	**CAS:**100-41-4	0.45% TO 1.8%	**OSHA HCS 2012:** Flam. Liq. 2; Acute Tox. 4 (Inhalation); Eye Irrit. 2; Carc. 2 (Inhalation); Repr. 2 (Inhalation); STOT SE 3: Narc.; STOT SE 3: Resp. Irrit. (Inhalation); STOT RE 2 (Ear / Inhalation); Asp. Tox. 1	NDA

Naphthalene	**CAS:**91-20-3	0.1% TO 0.5%	**OSHA HCS 2012:** Flam. Sol. 2; Acute Tox. 4 (Oral); Skin Irrit. 2; Muta. 2; Carc. 2; Repr. 2; STOT SE 3: Narc.; STOT RE 1 (Blood, Eyes - Oral, Inhl)	NDA

Section 4: First-Aid Measures

Description of first aid measures

Inhalation
- Move victim to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. Get medical attention if symptoms occur.

Skin
- In case of contact with substance, immediately flush skin with running water for at least 20 minutes. Remove and isolate contaminated clothing. Wash skin with soap and water. If irritation develops and persists, get medical attention.

Eye
- In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention.

Ingestion
- Do NOT induce vomiting. Obtain medical attention immediately if ingested.

Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

Indication of any immediate medical attention and special treatment needed

Notes to Physician
- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5: Fire-Fighting Measures

Extinguishing media

Suitable Extinguishing Media
- For small fires, Class B fire extinguishing media such as CO2, dry chemical, foam (AFFF/ATC) or water spray.
  For large fires, water spray, fog or foam (AFFF/ATC)

Unsuitable Extinguishing Media
- Avoid using straight water streams.

Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards
- HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames.
  Containers may explode when heated.
  Many liquids are lighter than water.
  Vapors may form explosive mixtures with air.
  Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
  Vapors may travel to source of ignition and flash back.
  Vapor explosion hazard indoors, outdoors or in sewers.
  Runoff to sewer may create fire or explosion hazard.

Hazardous Combustion Products
- No data available

Advice for firefighters

- Structural firefighters' protective clothing will only provide limited protection.
  Wear positive pressure self-contained breathing apparatus (SCBA).
  Move containers from fire area if you can do it without risk.
  LARGE FIRES: Cool containers with flooding quantities of water until well after fire is out.

Section 6 - Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Personal Precautions

- Ventilate enclosed areas. Do not walk through spilled material. Wear appropriate personal protective equipment, avoid direct contact. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.

Emergency Procedures

- As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions. LARGE SPILL: Consider initial downwind evacuation for at least 300 meters (1000 feet) ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Ventilate closed spaces before entering.

Environmental precautions

- Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Containment/Clean-up Measures

- Stop leak if you can do it without risk.
  Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
  Use clean non-sparking tools to collect absorbed material.
  A vapor suppressing foam may be used to reduce vapors.
  All equipment used when handling the product must be grounded.
  LARGE SPILLS: Dike far ahead of liquid spill for later disposal.
  LARGE SPILLS: Water spray may reduce vapor; but may not prevent ignition in closed spaces.

Section 7 - Handling and Storage

Precautions for safe handling

Handling

- Use only in well ventilated areas. Avoid contact with heat and ignition sources. Do not use sparking tools. Take precautionary measures against static charges. Static electric discharge can ignite fuel vapors when filling non-grounded containers or vehicles on trailers. Containers should be placed on the ground. The nozzle spout must be kept in contact with the container before and during the entire filling operation. All equipment used when handling the product must be grounded. Portable containers of 12 gallons (45 liters) or less should never be filled while they are in or on a motor vehicle or marine craft. Containers should be placed on the ground. Cellular phones and other electronic devices may have the potential to emit electrical charges (sparks). Sparks in potentially explosive atmospheres (including fueling areas such as gas stations) could cause an explosion if sufficient flammable vapors are present. Therefore, turn off cellular phones and other electronic devices when working in potentially explosive atmospheres or keep devices inside your vehicle during refueling. Never siphon this product by mouth. Do not cut, drill, grind or weld on empty containers since they may contain explosive residues. Wear appropriate personal protective equipment, avoid direct contact. Avoid breathing mist, vapours and/or spray. Avoid contact with skin, eyes, and clothing. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

Conditions for safe storage, including any incompatibilities

Storage

- Keep container tightly closed. Store in appropriately labeled containers. Store in a cool/low-temperature, well-ventilated place.

Section 8 - Exposure Controls/Personal Protection

Control parameters

Exposure Limits/Guidelines				
	Result	**ACGIH**	**NIOSH**	**OSHA**
Hexane (110-54-3)	TWAs	50 ppm TWA	50 ppm TWA; 180 mg/m3 TWA	500 ppm TWA; 1800 mg/m3 TWA

Butane (106-97-8)	STELs	1000 ppm STEL	Not established	Not established
	TWAs	Not established	800 ppm TWA; 1900 mg/m3 TWA	Not established
Naphthalene (91-20-3)	TWAs	10 ppm TWA	10 ppm TWA; 50 mg/m3 TWA	10 ppm TWA; 50 mg/m3 TWA
	STELs	Not established	15 ppm STEL; 75 mg/m3 STEL	Not established
Benzene (71-43-2)	Ceilings	Not established	Not established	25 ppm Ceiling
	STELs	2.5 ppm STEL	1 ppm STEL	5 ppm STEL (see 29 CFR 1910.1028)
	TWAs	0.5 ppm TWA	0.1 ppm TWA	10 ppm TWA (applies to industry segments exempt from the benzene standard at 29 CFR 1910.1028); 1 ppm TWA
Ethylbenzene (100-41-4)	TWAs	20 ppm TWA	100 ppm TWA; 435 mg/m3 TWA	100 ppm TWA; 435 mg/m3 TWA
	STELs	Not established	125 ppm STEL; 545 mg/m3 STEL	Not established
Toluene (108-88-3)	Ceilings	Not established	Not established	300 ppm Ceiling
	TWAs	20 ppm TWA	100 ppm TWA; 375 mg/m3 TWA	200 ppm TWA
	STELs	Not established	150 ppm STEL; 560 mg/m3 STEL	Not established
1,2,4-Trimethylbenzene (95-63-6)	TWAs	Not established	25 ppm TWA; 125 mg/m3 TWA	Not established
Xylene (1330-20-7)	TWAs	100 ppm TWA	Not established	100 ppm TWA; 435 mg/m3 TWA
	STELs	150 ppm STEL	Not established	Not established
Ethanol (64-17-5)	TWAs	Not established	1000 ppm TWA; 1900 mg/m3 TWA	1000 ppm TWA; 1900 mg/m3 TWA
	STELs	1000 ppm STEL	Not established	Not established

Exposure controls

Engineering Measures/Controls

- Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Use explosion-proof electrical/ventilating/lighting/equipment.

Personal Protective Equipment

Respiratory

- In case of insufficient ventilation, wear suitable respiratory equipment.

Eye/Face

- Wear safety goggles.

Skin/Body

- Wear appropriate gloves.

Environmental Exposure Controls

- Follow best practice for site management and disposal of waste. Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene
NIOSH = National Institute of Occupational Safety and Health
OSHA = Occupational Safety and Health Administration
STEL = Short Term Exposure Limits are based on 15-minute exposures
TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties

Information on Physical and Chemical Properties

Material Description			
Physical Form	Liquid	Appearance/Description	Clear or colored liquid.
Color	Clear or colored.	Odor	Strong Hydrocarbon.

Odor Threshold	No data available		
General Properties			
Boiling Point	90 to 437 F(32.2222 to 225 C)	Melting Point/Freezing Point	No data available
Decomposition Temperature	No data available	pH	7 Neutral
Specific Gravity/Relative Density	0.7 to 0.77 Water=1	Water Solubility	Negligible < 0.1 %
Viscosity	No data available		
Volatility			
Vapor Pressure	403 to 776 mmHg (torr) @ 100 F (37.7778 C)	Vapor Density	3 to 4 Air=1
Evaporation Rate	No data available	VOC (Vol.)	100 %
Flammability			
Flash Point	-50 F(-45.5556 C)	UEL	7.6 %
LEL	1.4 %	Autoignition	495 F(257.2222 C)
Flammability (solid, gas)	Not relevant.		
Environmental			
Octanol/Water Partition coefficient	2.13 to 4.5 Kow		

Section 10: Stability and Reactivity

Reactivity

- No dangerous reaction known under conditions of normal use.

Chemical stability

- Stable under normal temperatures and pressures.

Possibility of hazardous reactions

- Hazardous polymerization will not occur.

Conditions to avoid

- Excessive heat, sources of ignition and open flames.

Incompatible materials

- Strong oxidizers such as nitrates, chlorates, peroxides.

Hazardous decomposition products

- Combustion produces carbon monoxide, aldehydes, aromatic and other hydrocarbons.

Section 11 - Toxicological Information

Information on toxicological effects

Components		
Naphtha (petroleum), heavy catalytic reformed (15% TO 35%)	64741-68-0	**Acute Toxicity:** Ingestion/Oral-Rat LD50 • 4800 mg/kg; *Behavioral*:**Somnolence (general depressed activity)**; *Gastrointestinal*:**Hypermotility, diarrhea**; **Irritation:** Skin-Rabbit • 500 mg • Severe irritation; **Multi-dose Toxicity:** Inhalation-Rat TCLo • 10 g/m³ 6 Hour(s) 3 Week(s)-Intermittent; *Sense Organs and Special Senses:Eye*:**Corneal damage**; *Behavioral*:**Coma**; *Related to Chronic Data*:**Death in the Other Multiple Dose data type field**
		Acute Toxicity: Ingestion/Oral-Rat LD50 • 636 mg/kg; Inhalation-Rat LC50 • 49 g/m³ 4 Hour(s); Inhalation-Human TCLo • 1500 mg/m³ 8 Hour(s); *Sense Organs and Special Senses:Eye*:**Lacrimation**; *Sense Organs and Special Senses:Eye*:**Conjunctive irritation**; *Behavioral*:**Ataxia**; Inhalation-Human TCLo • 200 ppm; *Brain and Coverings*:**Recordings from specific areas of CNS**; *Behavioral*:**Antipsychotic**; *Blood*:**Changes in bone marrow not included above**; Inhalation-Man TCLo • 50 ppm; *Kidney, Ureter, and Bladder*:**Other changes in**

Toluene (0.9% TO 13.5%)	108-88-3	**urine composition**; Skin-Rabbit LD50 • 14100 µL/kg; **Irritation:** Eye-Rabbit • 2 mg 24 Hour(s) • Severe irritation; Skin-Rabbit • 20 mg 24 Hour(s) • Moderate irritation; **Multi-dose Toxicity:** Inhalation-Mouse TCLo • 250 ppm 4 Day(s)-Continuous; *Behavioral*:**Convulsions or effect on seizure threshold**; *Behavioral*:**Abuse**; Inhalation-Mouse TCLo • 50 ppm 12 Week(s)-Intermittent; *Brain and Coverings*:**Other degenerative changes**; Inhalation-Rat TCLo • 10 ppm 6 Hour(s) 13 Week(s)-Intermittent; *Brain and Coverings*:**Other degenerative changes**; *Biochemical:Enzyme inhibition, induction, or change in blood or tissue levels*:**Multiple enzyme effects**; **Mutagen:** Micronucleus test • Ingestion/Oral-Mouse • 200 mg/kg; Sister chromatid exchange • Inhalation-Human • 252 µg/L 19 Year(s); Cytogenetic analysis • Inhalation-Rat • 5400 µg/m³ 16 Week(s)-Intermittent
Ethanol (5.7% TO 13.5%)	64-17-5	**Acute Toxicity:** Ingestion/Oral-Rat LD50 • 7 g/kg; Ingestion/Oral-Human TDLo • 0.5 g/kg; *Behavioral*:**Somnolence (general depressed activity)**; *Behavioral*:**Changes in psychophysiological tests**; Ingestion/Oral-Man TDLo • 3371 µL/kg; *Behavioral*:**Altered sleep time (including change in righting reflex)**; *Behavioral*:**Excitement**; *Behavioral*:**Coma**; Ingestion/Oral-Rat TDLo • 8000 mg/kg; *Brain and Coverings*:**Other degenerative changes**; *Cardiac*:**Cardiomyopathy including infarction**; *Liver*:**Multiple effects**; Inhalation-Rat LC50 • 5900 mg/m³ 6 Hour(s); **Irritation:** Eye-Rabbit • 500 mg • Severe irritation; Skin-Rabbit • 20 mg 24 Hour(s) • Moderate irritation; **Multi-dose Toxicity:** Ingestion/Oral-Rat TDLo • 188 g/kg 25 Day(s)-Intermittent; *Liver*:**Fatty liver degeneration**; *Biochemical:Enzyme inhibition, induction, or change in blood or tissue levels*:**Multiple enzyme effects**; *Biochemical:Metabolism (intermediary)*:**Lipids, including transport**; **Mutagen:** Cytogenetic analysis • Ingestion/Oral-Human • 49014 g/kg 25 Year(s); Dominant lethal test • Ingestion/Oral-Mouse • 3720 mg/kg 3 Day(s); Sperm Morphology • Ingestion/Oral-Mouse • 1500 mg/kg 50 Day(s); **Reproductive:** Ingestion/Oral-Rat TDLo • 12 g/kg (9-12D preg); *Reproductive Effects:Effects on Embryo or Fetus*:**Fetotoxicity (except death, e.g., stunted fetus)**; Ingestion/Oral-Woman TDLo • 5860 mL/kg (3Y pre-100D post); *Reproductive Effects:Specific Developmental Abnormalities*:**Craniofacial (including nose and tongue)**; *Reproductive Effects:Effects on Newborn*:**Behavioral**; *Reproductive Effects:Effects on Newborn*:**Delayed effects**; **Tumorigen / Carcinogen:** Ingestion/Oral-Mouse • 400 g/kg 57 Week(s)-Intermittent; *Tumorigenic*:**Equivocal tumorigenic agent by RTECS criteria**; *Gastrointestinal*:**Tumors**; Ingestion/Oral-Mouse TDLo • 320 mg/kg 50 Week(s)-Intermittent; *Tumorigenic*:**Equivocal tumorigenic agent by RTECS criteria**; *Liver*:**Tumors**; *Blood*:**Lymphoma, including Hodgkin's disease**
Xylene (1.8% TO 9%)	1330-20-7	**Acute Toxicity:** Ingestion/Oral-Rat LD50 • 4300 mg/kg; *Liver*:**Other changes**; *Kidney, Ureter, and Bladder*:**Other changes**; Inhalation-Rat LC50 • 5000 ppm 4 Hour(s); Inhalation-Man LCLo • 10000 ppm 6 Hour(s); *Behavioral*:**General anesthetic**; *Lungs, Thorax, or Respiration*:**Cyanosis**; *Blood*:**Other changes**; Inhalation-Human TCLo • 200 ppm; *Sense Organs and Special Senses:Olfaction*:**Other changes**; *Sense Organs and Special Senses:Eye*:**Conjunctive irritation**; *Lungs, Thorax, or Respiration*:**Other changes**; Skin-Rabbit LD50 • >1700 mg/kg; **Irritation:** Eye-Rabbit • 5 mg 24 Hour(s) • Severe irritation; Skin-Rabbit • 500 mg 24 Hour(s) • Moderate irritation; **Reproductive:** Inhalation-Mouse TCLo • 2000 ppm 6 Hour(s)(6-12D preg); *Reproductive Effects:Effects on Embryo or Fetus*:**Fetotoxicity (except death, e.g., stunted fetus)**; Inhalation-Rabbit TCLo • 1 g/m³ 24 Hour(s) (7-20D preg); *Reproductive Effects:Effects on Fertility*:**Abortion**; Inhalation-Rat TCLo • 50 mg/m³ 6 Hour(s)(1-21D preg); *Reproductive Effects:Effects on Fertility*:**Post-implantation mortality**; *Reproductive Effects:Effects on Embryo or Fetus*:**Fetotoxicity (except death, e.g., stunted fetus)**; *Reproductive Effects:Specific Developmental Abnormalities*:**Craniofacial (including nose and tongue)**
1,2,4-Trimethylbenzene (0.9% TO 4.5%)	95-63-6	**Acute Toxicity:** Ingestion/Oral-Rat LD50 • 5 g/kg; Inhalation-Rat LC50 • 18000 mg/m³ 4 Hour(s); **Multi-dose Toxicity:** Inhalation-Rat TCLo • 20 mg/m³ 16 Week(s)-Continuous; *Kidney, Ureter, and Bladder*:**Other changes in urine composition**; Inhalation-Rat TCLo • 100 ppm 6 Hour(s) 20 Day(s)-Intermittent; *Behavioral*:**Changes in motor activity (specific assay)**; *Behavioral*:**Analgesia**; *Behavioral*:**Alteration of operant conditioning**
Benzene (0.45% TO	71-43-	**Acute Toxicity:** Ingestion/Oral-Rat LD50 • 930 mg/kg; *Behavioral*:**Tremor**; *Behavioral*:**Convulsions or effect on seizure threshold**; Inhalation-Rat LC50 • 10000 ppm 7 Hour(s); Inhalation-Human TCLo • 50 mg/m³ 2 Hour (s); *Behavioral*:**Changes in psychophysiological tests**; *Behavioral*:**Muscle weakness**; Inhalation-Rat TCLo • 1 ppm 6 Hour(s); *Kidney, Ureter, and Bladder*:**Other changes in urine composition**; Skin-Rabbit LD50 • >9400 µL/kg; **Irritation:** Eye-Rabbit • 2 mg 24 Hour(s) • Severe irritation; Skin-Rabbit • 20 mg 24 Hour(s) • Moderate irritation; **Multi-dose Toxicity:** Inhalation-Mouse TCLo • 100 ppm 2 Week(s)-Intermittent; *Endocrine*:**Differential effect of sex or castration on observed toxicity**; *Blood*:**Leukopenia**; *Blood*:**Changes in bone marrow not included above**; Inhalation-Mouse TDLo • 100 ppm 6 Hour(s) 10 Day(s)-Intermittent; *Blood*:**Changes in bone marrow not included above**; *Blood*:**Changes in platelet count**; **Mutagen:** Dominant lethal test • Ingestion/Oral-Mouse • 1 mg/kg; Cytogenetic analysis • Inhalation-Human • 0.1

3.2%)	2	ppm; Cytogenetic analysis • Inhalation-Human • 125 ppm 1 Year(s); Sister chromatid exchange • Inhalation-Mouse • 10 ppm 6 Hour(s); Micronucleus test • Inhalation-Rat • 1 ppm 6 Hour(s); **Reproductive:** Inhalation-Mouse TCLo • 5 ppm (6-15D preg); *Reproductive Effects:Effects on Embryo or Fetus*:**Cytological changes**; *Reproductive Effects:Specific Developmental Abnormalities*:**Blood and lymphatic system**; Inhalation-Mouse TCLo • 20 ppm 6 Hour(s)(6-15D preg); *Reproductive Effects:Specific Developmental Abnormalities*:**Blood and lymphatic system**; Inhalation-Rat TCLo • 670 mg/m³ 24 Hour(s)(15D pre/1-22D preg); *Reproductive Effects:Effects on Fertility*:**Female fertility index**; Parenteral-Mouse TDLo • 4 g/kg (12D preg); *Reproductive Effects:Effects on Newborn*:**Weaning or lactation index**; **Tumorigen / Carcinogen:** Inhalation-Human • 150 ppm 15 Minute(s) 8 Year(s)-Intermittent; *Tumorigenic*:**Carcinogenic by RTECS criteria**; *Blood*:**Leukemia**; Inhalation-Human • 10 mg/m³ 11 Year(s)-Intermittent; *Tumorigenic*:**Carcinogenic by RTECS criteria**; *Blood*:**Leukemia**
Hexane (0% TO 2.7%)	110-54-3	**Acute Toxicity:** Ingestion/Oral-Rat LD50 • 25 g/kg; Inhalation-Rat LC50 • 48000 ppm 4 Hour(s); **Irritation:** Eye-Rabbit • 10 mg • Mild irritation; **Reproductive:** Inhalation-Rat TCLo • 5000 ppm (6-19D preg); *Reproductive Effects:Specific Developmental Abnormalities*:**Musculoskeletal system**; *Reproductive Effects:Specific Developmental Abnormalities*:**Urogenital system**
Ethylbenzene (0.45% TO 1.8%)	100-41-4	**Acute Toxicity:** Ingestion/Oral-Rat LD50 • 3500 mg/kg; Inhalation-Guinea Pig LCLo • 2500 ppm 8 Hour(s); *Behavioral*:**Coma**; Inhalation-Human TCLo • 21700 mg/m³; *Behavioral*:**Antipsychotic**; Inhalation-Mouse TCLo • 600 ppm 6 Minute(s); *Lungs, Thorax, or Respiration*:**Respiratory depression**; Skin-Rabbit LD50 • 17800 µL/kg; Skin-Rabbit LD50 • >5000 mg/kg; **Irritation:** Eye-Rabbit • 500 mg • Severe irritation; Skin-Rabbit • 15 mg 24 Hour(s)-Open • Mild irritation; **Multi-dose Toxicity:** Inhalation-Rat TCLo • 550 ppm 8 Hour(s) 5 Day(s)-Intermittent; *Sense Organs and Special Senses:Ear*:**Change in acuity**; *Sense Organs and Special Senses:Ear*:**Changes in cochlear structure or function**; Inhalation-Rat TDLo • 200 ppm 13 Week(s)-Intermittent; *Sense Organs and Special Senses:Ear*:**Changes in cochlear structure or function**; **Mutagen:** Specific locus test • Intraperitoneal-Mouse • 754 µmol/L; Micronucleus test • Unreported Route-Hamster • Embryo (Somatic cell) • 25 mg/L; Sister chromatid exchange • Unreported Route-Human • Lymphocyte (Somatic cell) • 10 mmol/L; Mutation in Mammalian Somatic Cells • Unreported Route-Mouse • Lymphocyte (Somatic cell) • 80 mg/L; **Reproductive:** Inhalation-Rabbit TCLo • 1 g/m³ 24 Hour(s)(7-20D preg); *Reproductive Effects:Effects on Fertility*:**Abortion**; Inhalation-Rat TCLo • 96 ppm 7 Hour(s)(1-19D preg); *Reproductive Effects:Specific Developmental Abnormalities*:**Musculoskeletal system**; Inhalation-Rat TCLo • 1000 ppm (6H/6-20D preg); *Reproductive Effects:Specific Developmental Abnormalities*:**Other developmental abnormalities**; *Reproductive Effects:Specific Developmental Abnormalities*:**Musculoskeletal system**; Inhalation-Rat TCLo • 600 mg/m³ 24 Hour(s)(7-15D preg); *Reproductive Effects:Effects on Fertility*:**Post-implantation mortality**; *Reproductive Effects:Effects on Embryo or Fetus*:**Fetal death**; *Reproductive Effects:Specific Developmental Abnormalities*:**Musculoskeletal system**; **Tumorigen / Carcinogen:** Inhalation-Mouse TCLo • 750 ppm 6 Hour(s) 2 Year(s)-Intermittent; *Tumorigenic*:**Carcinogenic by RTECS criteria**; *Lungs, Thorax, or Respiration*:**Bronchiogenic carcinoma**; *Liver*:**Tumors**; Inhalation-Rat TCLo • 23400 mg/kg 104 Week(s)-Intermittent; *Tumorigenic*:**Equivocal tumorigenic agent by RTECS criteria**; *Kidney, Ureter, and Bladder*:**Kidney tumors**; *Reproductive Effects:Tumorigenic Effects*:**Testicular tumors**; Inhalation-Rat TCLo • 750 ppm 6 Hour(s) 2 Year(s)-Intermittent; *Tumorigenic*:**Carcinogenic by RTECS criteria**; *Kidney, Ureter, and Bladder*:**Tumors**
Naphthalene (0.1% TO 0.5%)	91-20-3	**Acute Toxicity:** Ingestion/Oral-Rat LD50 • 490 mg/kg; Ingestion/Oral-Mouse TDLo • 158 mg/kg; *Brain and Coverings*:**Other degenerative changes**; *Liver*:**Other changes**; *Biochemical:Metabolism (intermediary)*:**Lipids, including transport**; Inhalation-Human TCLo • 250 mg/m³; *Sense Organs and Special Senses:Eye*:**Lacrimation**; *Behavioral*:**Headache**; Skin-Rabbit LD50 • >20 g/kg; Unreported-Guinea Pig LD50 • 1200 mg/kg; *Behavioral*:**Somnolence (general depressed activity)**; **Irritation:** Skin-Rabbit • 0.05 mL 24 Hour(s) • Severe irritation; **Multi-dose Toxicity:** Ingestion/Oral-Rat TDLo • 4500 mg/kg 10 Day(s)-Intermittent; *Brain and Coverings*:**Other degenerative changes**; Ingestion/Oral-Rat TDLo • 500 mg/kg 10 Day(s)-Intermittent; *Behavioral*:**Sleep**; *Lungs, Thorax, or Respiration*:**Dyspnea**; **Mutagen:** Specific locus test • Inhalation-Rat • 30 ppm 13 Week(s)-Intermittent; Micronucleus test • Unreported Route-Human • Lymphocyte (Somatic cell) • 30 mg/L; **Reproductive:** Ingestion/Oral-Mouse TDLo • 2400 mg/kg (7-14D preg); *Reproductive Effects:Effects on Newborn*:**Live birth index**; *Reproductive Effects:Effects on Newborn*:**Viability index (e.g., # alive at day 4 per # born alive)**; Ingestion/Oral-Rat TDLo • 4500 mg/kg (6-15D preg); *Reproductive Effects:Effects on Embryo or Fetus*:**Fetotoxicity (except death, e.g., stunted fetus)**; *Reproductive Effects:Specific Developmental Abnormalities*:**Other developmental abnormalities**; **Tumorigen / Carcinogen:** Inhalation-Mouse TCLo • 30 ppm 6 Hour(s) 2 Year(s)-Intermittent;

		Tumorigenic:**Neoplastic by RTECS criteria**; *Lungs, Thorax, or Respiration*:**Tumors**; Inhalation-Rat TCLo • 1575 mg/kg 105 Week(s)-Intermittent; *Tumorigenic*:**Carcinogenic by RTECS criteria**; *Sense Organs and Special Senses:Olfaction*:**Tumors**; Inhalation-Rat TCLo • 60 ppm 6 Hour(s) 105 Week(s)-Intermittent; *Tumorigenic*:**Carcinogenic by RTECS criteria**; *Sense Organs and Special Senses:Olfaction*:**Tumors**

GHS Properties	Classification
Respiratory sensitization	**OSHA HCS 2012** • No data available
Serious eye damage/Irritation	**OSHA HCS 2012** • Eye Irritation 2
Acute toxicity	**OSHA HCS 2012** • No data available
Aspiration Hazard	**OSHA HCS 2012** • Aspiration 1
Carcinogenicity	**OSHA HCS 2012** • Carcinogenicity 1A
Skin corrosion/Irritation	**OSHA HCS 2012** • Skin Irritation 2
Skin sensitization	**OSHA HCS 2012** • No data available
STOT-RE	**OSHA HCS 2012** • Specific Target Organ Toxicity Repeated Exposure 1; Specific Target Organ Toxicity Repeated Exposure 2
STOT-SE	**OSHA HCS 2012** • Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects
Toxicity for Reproduction	**OSHA HCS 2012** • Toxic to Reproduction 1B
Germ Cell Mutagenicity	**OSHA HCS 2012** • No data available

Potential Health Effects

Inhalation

Acute (Immediate)
- May affect the central nervous system. Symptoms may include dizziness, drowsiness, lethargy, coma and death.

Chronic (Delayed)
- CNS depression has been reported to occur in chronic abusers exposed to high levels of toluene. Symptoms include drowsiness, ataxia, tremors, cerebral atrophy, nystagmus (involuntary eye movements), and impaired speech, hearing, and vision. Neurobehavioral effects have been observed in occupationally exposed workers. Exposure to relatively low concentrations of ethylbenzene for several days to weeks resulted in potentially irreversible damage to the inner ear and hearing of animals. Chronic exposure to benzene, a component of this material, results primarily in hematotoxicity, including aplastic anemia, pancytopenia, or any combination of anemia, leukopenia, and thrombocytopenia Chronic benzene exposure is associated with an increased risk of leukemia.

Skin

Acute (Immediate)
- Causes skin irritation.

Chronic (Delayed)
- No data available.

Eye

Acute (Immediate)
- Causes serious eye irritation.

Chronic (Delayed)
- No data available.

Ingestion

Acute (Immediate)
- Material may be aspirated into lungs during ingestion and/or subsequent vomiting. Aspiration of this material will cause severe lung injury, chemical pneumonitis, pulmonary edema or death.

Chronic (Delayed)
- No data available.

Other

Chronic (Delayed)
- Chronic exposure to Hexane may produce important peripheral neuropathy (motor sensory) and CNS abnormalities.

Carcinogenic Effects
- Repeated and prolonged exposure may cause cancer.

Carcinogenic Effects				
	CAS	OSHA	IARC	NTP
Naphthalene	91-20-3	Not Listed	Group 2B-Possible Carcinogen	Reasonably Anticipated to be Human Carcinogen
Benzene	71-43-2	Specifically Regulated Carcinogen	Group 1-Carcinogenic	Known Human Carcinogen
Ethylbenzene	100-41-4	Not Listed	Group 2B-Possible Carcinogen	Not Listed
Ethanol	64-17-5	Not Listed	Group 1-Carcinogenic	Not Listed

Reproductive Effects

- Repeated and prolonged exposure may cause reproductive effects.

Key to abbreviations

LC = Lethal Concentration
LD = Lethal Dose
TC = Toxic Concentration
TD = Toxic Dose

Section 12 - Ecological Information

Toxicity

- Non-mandatory section - information about this substance not compiled for this reason.

Persistence and degradability

- Non-mandatory section - information about this substance not compiled for this reason.

Bioaccumulative potential

- Non-mandatory section - information about this substance not compiled for this reason.

Mobility in Soil

- Non-mandatory section - information about this substance not compiled for this reason.

Other adverse effects

- Non-mandatory section - information about this substance not compiled for this reason.

Section 13 - Disposal Considerations

Waste treatment methods

Product waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	UN number	UN proper shipping name	Transport hazard class(es)	Packing group	Environmental hazards
DOT	UN1203	Gasoline	3	II	NDA

TDG	UN1203	GASOLINE	3	II	NDA

Special precautions for user
- None known.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
- Not relevant.

Section 15 - Regulatory Information

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

SARA Hazard Classifications
- Acute, Chronic, Fire

Inventory				
Component	**CAS**	**Canada DSL**	**Canada NDSL**	**TSCA**
1,2,4-Trimethylbenzene	95-63-6	Yes	No	Yes
Benzene	71-43-2	Yes	No	Yes
Butane	106-97-8	Yes	No	Yes
Ethanol	64-17-5	Yes	No	Yes
Ethylbenzene	100-41-4	Yes	No	Yes
Full-range alkylate (petroleum) naphtha	64741-64-6	Yes	No	Yes
Hexane	110-54-3	Yes	No	Yes
Hydrocarbons, C3-11, catalytic cracker distillates	68476-46-0	Yes	No	Yes
Naphtha (petroleum), heavy catalytic reformed	64741-68-0	Yes	No	Yes
Naphtha (petroleum), isomerization	64741-70-4	No	Yes	Yes
Naphthalene	91-20-3	Yes	No	Yes
Toluene	108-88-3	Yes	No	Yes
Xylene	1330-20-7	Yes	No	Yes

Canada

Labor

Canada - WHMIS - Classifications of Substances

• Naphtha (petroleum), heavy catalytic reformed	64741-68-0	Not Listed
• Naphthalene	91-20-3	B4, D2A
• Ethylbenzene	100-41-4	B2, D2A, D2B
• Toluene	108-88-3	B2, D2A, D2B
• Xylene	1330-20-7	B2, D2A, D2B
• Benzene	71-43-2	B2, D2A, D2B
• Butane	106-97-8	A, B1
• Ethanol	64-17-5	B2, D2B
• Hexane	110-54-3	B2, D2A, D2B
• 1,2,4-Trimethylbenzene	95-63-6	B3
• Full-range alkylate (petroleum) naphtha	64741-64-6	Not Listed
• Naphtha (petroleum), isomerization	64741-70-4	Not Listed

• Hydrocarbons, C3-11, catalytic cracker distillates	68476-46-0	Not Listed

Canada - WHMIS - Ingredient Disclosure List

• Naphtha (petroleum), heavy catalytic reformed	64741-68-0	Not Listed
• Naphthalene	91-20-3	1 %
• Ethylbenzene	100-41-4	0.1 %
• Toluene	108-88-3	1 %
• Xylene	1330-20-7	Not Listed
• Benzene	71-43-2	0.1 %
• Butane	106-97-8	1 %
• Ethanol	64-17-5	0.1 %
• Hexane	110-54-3	1 %
• 1,2,4-Trimethylbenzene	95-63-6	0.1 %
• Full-range alkylate (petroleum) naphtha	64741-64-6	Not Listed
• Naphtha (petroleum), isomerization	64741-70-4	Not Listed
• Hydrocarbons, C3-11, catalytic cracker distillates	68476-46-0	Not Listed

Environment

Canada - CEPA - Priority Substances List

• Naphtha (petroleum), heavy catalytic reformed	64741-68-0	Not Listed
• Naphthalene	91-20-3	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Toluene	108-88-3	Priority Substance List 1 (substance not considered toxic)
• Xylene	1330-20-7	Priority Substance List 1 (substance not considered toxic)
• Benzene	71-43-2	Priority Substance List 1 (substance considered toxic)
• Butane	106-97-8	Not Listed
• Ethanol	64-17-5	Not Listed
• Hexane	110-54-3	Not Listed
• 1,2,4-Trimethylbenzene	95-63-6	Not Listed
• Full-range alkylate (petroleum) naphtha	64741-64-6	Not Listed
• Naphtha (petroleum), isomerization	64741-70-4	Not Listed
• Hydrocarbons, C3-11, catalytic cracker distillates	68476-46-0	Not Listed

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

• Naphtha (petroleum), heavy catalytic reformed	64741-68-0	Not Listed
• Naphthalene	91-20-3	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Benzene	71-43-2	Not Listed
• Butane	106-97-8	Not Listed
• Ethanol	64-17-5	Not Listed
• Hexane	110-54-3	Not Listed
• 1,2,4-Trimethylbenzene	95-63-6	Not Listed
• Full-range alkylate (petroleum) naphtha	64741-64-6	Not Listed
• Naphtha (petroleum), isomerization	64741-70-4	Not Listed

• Hydrocarbons, C3-11, catalytic cracker distillates	68476-46-0	Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

• Naphtha (petroleum), heavy catalytic reformed	64741-68-0	Not Listed
• Naphthalene	91-20-3	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Benzene	71-43-2	5 ppm STEL (See 29 CFR 1910.1028, 15 min); 0.5 ppm Action Level; 1 ppm TWA
• Butane	106-97-8	Not Listed
• Ethanol	64-17-5	Not Listed
• Hexane	110-54-3	Not Listed
• 1,2,4-Trimethylbenzene	95-63-6	Not Listed
• Full-range alkylate (petroleum) naphtha	64741-64-6	Not Listed
• Naphtha (petroleum), isomerization	64741-70-4	Not Listed
• Hydrocarbons, C3-11, catalytic cracker distillates	68476-46-0	Not Listed

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

• Naphtha (petroleum), heavy catalytic reformed	64741-68-0	Not Listed
• Naphthalene	91-20-3	
• Ethylbenzene	100-41-4	(listed under Ethyl benzene)
• Toluene	108-88-3	
• Xylene	1330-20-7	(isomers and mixtures)
• Benzene	71-43-2	(including Benzene from gasoline)
• Butane	106-97-8	Not Listed
• Ethanol	64-17-5	Not Listed
• Hexane	110-54-3	
• 1,2,4-Trimethylbenzene	95-63-6	Not Listed
• Full-range alkylate (petroleum) naphtha	64741-64-6	Not Listed
• Naphtha (petroleum), isomerization	64741-70-4	Not Listed
• Hydrocarbons, C3-11, catalytic cracker distillates	68476-46-0	Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• Naphtha (petroleum), heavy catalytic reformed	64741-68-0	Not Listed
• Naphthalene	91-20-3	100 lb final RQ; 45.4 kg final RQ
• Ethylbenzene	100-41-4	1000 lb final RQ; 454 kg final RQ
• Toluene	108-88-3	1000 lb final RQ; 454 kg final RQ
• Xylene	1330-20-7	100 lb final RQ; 45.4 kg final RQ
• Benzene	71-43-2	10 lb final RQ (received an adjusted RQ of 10 lbs based on potential carcinogenicity in an August 14, 1989 final rule); 4.54 kg final RQ (received an adjusted RQ of 10 lbs based on potential carcinogenicity in an August 14, 1989 final rule)
• Butane	106-97-8	Not Listed

• Ethanol	64-17-5	Not Listed
• Hexane	110-54-3	5000 lb final RQ; 2270 kg final RQ
• 1,2,4-Trimethylbenzene	95-63-6	Not Listed
• Full-range alkylate (petroleum) naphtha	64741-64-6	Not Listed
• Naphtha (petroleum), isomerization	64741-70-4	Not Listed
• Hydrocarbons, C3-11, catalytic cracker distillates	68476-46-0	Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

• Naphtha (petroleum), heavy catalytic reformed	64741-68-0	Not Listed
• Naphthalene	91-20-3	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Benzene	71-43-2	Not Listed
• Butane	106-97-8	Not Listed
• Ethanol	64-17-5	Not Listed
• Hexane	110-54-3	Not Listed
• 1,2,4-Trimethylbenzene	95-63-6	Not Listed
• Full-range alkylate (petroleum) naphtha	64741-64-6	Not Listed
• Naphtha (petroleum), isomerization	64741-70-4	Not Listed
• Hydrocarbons, C3-11, catalytic cracker distillates	68476-46-0	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• Naphtha (petroleum), heavy catalytic reformed	64741-68-0	Not Listed
• Naphthalene	91-20-3	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Benzene	71-43-2	Not Listed
• Butane	106-97-8	Not Listed
• Ethanol	64-17-5	Not Listed
• Hexane	110-54-3	Not Listed
• 1,2,4-Trimethylbenzene	95-63-6	Not Listed
• Full-range alkylate (petroleum) naphtha	64741-64-6	Not Listed
• Naphtha (petroleum), isomerization	64741-70-4	Not Listed
• Hydrocarbons, C3-11, catalytic cracker distillates	68476-46-0	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• Naphtha (petroleum), heavy catalytic reformed	64741-68-0	Not Listed
• Naphthalene	91-20-3	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Benzene	71-43-2	Not Listed
• Butane	106-97-8	Not Listed
• Ethanol	64-17-5	Not Listed
• Hexane	110-54-3	Not Listed
• 1,2,4-Trimethylbenzene	95-63-6	Not Listed
• Full-range alkylate (petroleum) naphtha	64741-64-6	Not Listed
• Naphtha (petroleum), isomerization	64741-70-4	Not Listed
• Hydrocarbons, C3-11, catalytic cracker distillates	68476-46-0	Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• Naphtha (petroleum), heavy catalytic reformed	64741-68-0	Not Listed
• Naphthalene	91-20-3	0.1 % de minimis concentration
• Ethylbenzene	100-41-4	0.1 % de minimis concentration
• Toluene	108-88-3	1.0 % de minimis concentration
• Xylene	1330-20-7	1.0 % de minimis concentration
• Benzene	71-43-2	0.1 % de minimis concentration
• Butane	106-97-8	Not Listed
• Ethanol	64-17-5	Not Listed
• Hexane	110-54-3	1.0 % de minimis concentration
• 1,2,4-Trimethylbenzene	95-63-6	1.0 % de minimis concentration
• Full-range alkylate (petroleum) naphtha	64741-64-6	Not Listed
• Naphtha (petroleum), isomerization	64741-70-4	Not Listed
• Hydrocarbons, C3-11, catalytic cracker distillates	68476-46-0	Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

• Naphtha (petroleum), heavy catalytic reformed	64741-68-0	Not Listed
• Naphthalene	91-20-3	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Benzene	71-43-2	Not Listed
• Butane	106-97-8	Not Listed
• Ethanol	64-17-5	Not Listed
• Hexane	110-54-3	Not Listed
• 1,2,4-Trimethylbenzene	95-63-6	Not Listed
• Full-range alkylate (petroleum) naphtha	64741-64-6	Not Listed
• Naphtha (petroleum), isomerization	64741-70-4	Not Listed
• Hydrocarbons, C3-11, catalytic cracker distillates	68476-46-0	Not Listed

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

• Naphtha (petroleum), heavy catalytic reformed	64741-68-0	Not Listed
• Naphthalene	91-20-3	carcinogen, initial date 4/19/02
• Ethylbenzene	100-41-4	carcinogen, initial date 6/11/04
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Benzene	71-43-2	carcinogen, initial date 2/27/87
• Butane	106-97-8	Not Listed
• Ethanol	64-17-5	carcinogen, initial date 4/29/11 (in alcoholic beverages)
• Hexane	110-54-3	Not Listed
• 1,2,4-Trimethylbenzene	95-63-6	Not Listed
• Full-range alkylate (petroleum) naphtha	64741-64-6	Not Listed
• Naphtha (petroleum), isomerization	64741-70-4	Not Listed
• Hydrocarbons, C3-11, catalytic cracker distillates	68476-46-0	Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

• Naphtha (petroleum), heavy catalytic reformed	64741-68-0	Not Listed
• Naphthalene	91-20-3	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Toluene	108-88-3	developmental toxicity, initial date 1/1/91
• Xylene	1330-20-7	Not Listed
• Benzene	71-43-2	developmental toxicity, initial date 12/26/97
• Butane	106-97-8	Not Listed
• Ethanol	64-17-5	developmental toxicity, initial date 10/1/87 (in alcoholic beverages)
• Hexane	110-54-3	Not Listed
• 1,2,4-Trimethylbenzene	95-63-6	Not Listed
• Full-range alkylate (petroleum) naphtha	64741-64-6	Not Listed
• Naphtha (petroleum), isomerization	64741-70-4	Not Listed
• Hydrocarbons, C3-11, catalytic cracker distillates	68476-46-0	Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

• Naphtha (petroleum), heavy catalytic reformed	64741-68-0	Not Listed
• Naphthalene	91-20-3	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Toluene	108-88-3	7000 µg/day MADL (level represents absorbed dose)
• Xylene	1330-20-7	Not Listed
• Benzene	71-43-2	24 µg/day MADL (oral); 49 µg/day MADL (inhalation)
• Butane	106-97-8	Not Listed
• Ethanol	64-17-5	Not Listed
• Hexane	110-54-3	Not Listed
• 1,2,4-Trimethylbenzene	95-63-6	Not Listed
• Full-range alkylate (petroleum) naphtha	64741-64-6	Not Listed
• Naphtha (petroleum), isomerization	64741-70-4	Not Listed
• Hydrocarbons, C3-11, catalytic cracker distillates	68476-46-0	Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

• Naphtha (petroleum), heavy catalytic reformed	64741-68-0	Not Listed
• Naphthalene	91-20-3	5.8 µg/day NSRL
• Ethylbenzene	100-41-4	54 µg/day NSRL (inhalation); 41 µg/day NSRL (oral)
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Benzene	71-43-2	6.4 µg/day NSRL (oral); 13 µg/day NSRL (inhalation)
• Butane	106-97-8	Not Listed
• Ethanol	64-17-5	Not Listed
• Hexane	110-54-3	Not Listed
• 1,2,4-Trimethylbenzene	95-63-6	Not Listed
• Full-range alkylate (petroleum) naphtha	64741-64-6	Not Listed
• Naphtha (petroleum), isomerization	64741-70-4	Not Listed
• Hydrocarbons, C3-11, catalytic cracker distillates	68476-46-0	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

• Naphtha (petroleum), heavy catalytic reformed	64741-68-0	Not Listed

• Naphthalene	91-20-3	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Toluene	108-88-3	female reproductive toxicity, initial date 8/7/09
• Xylene	1330-20-7	Not Listed
• Benzene	71-43-2	Not Listed
• Butane	106-97-8	Not Listed
• Ethanol	64-17-5	Not Listed
• Hexane	110-54-3	Not Listed
• 1,2,4-Trimethylbenzene	95-63-6	Not Listed
• Full-range alkylate (petroleum) naphtha	64741-64-6	Not Listed
• Naphtha (petroleum), isomerization	64741-70-4	Not Listed
• Hydrocarbons, C3-11, catalytic cracker distillates	68476-46-0	Not Listed
U.S. - California - Proposition 65 - Reproductive Toxicity - Male		
• Naphtha (petroleum), heavy catalytic reformed	64741-68-0	Not Listed
• Naphthalene	91-20-3	Not Listed
• Ethylbenzene	100-41-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Benzene	71-43-2	male reproductive toxicity, initial date 12/26/97
• Butane	106-97-8	Not Listed
• Ethanol	64-17-5	Not Listed
• Hexane	110-54-3	Not Listed
• 1,2,4-Trimethylbenzene	95-63-6	Not Listed
• Full-range alkylate (petroleum) naphtha	64741-64-6	Not Listed
• Naphtha (petroleum), isomerization	64741-70-4	Not Listed
• Hydrocarbons, C3-11, catalytic cracker distillates	68476-46-0	Not Listed

Other Information

- WARNING: This product contains a chemical known to the State of California to cause cancer, birth defects, or other reproductive harm.

Section 16 - Other Information

Revision Date
- 23/October/2015

Preparation Date
- 30/November/2010

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Key to abbreviations

NDA = No data available