



SAFETY DATA SHEET

Version: 1.2
Revision Date: 6/15/20

This material is to be used for research purposes only under the supervision of a technically qualified individual. The toxicological properties may have not been completely characterized. Please determine your responsibilities under your local regulations.

1. Identification of the substance or mixture and of the supplier

Identification

Product Name: XPD
Additional identification
Chemical name: Not applicable for mixtures.

Recommended use and restriction on use

Recommended use: Not Determined
Restrictions on use:

Details of the supplier of the safety data sheet

Company Name: Opti-Lube Inc
Address: 1646 W Business Park Drive, Suite B
Orem, UT 84058
USA
Telephone: 801-491-3717

Emergency telephone number:

FOR TRANSPORT EMERGENCY CALL (+1) 801-850-8553, OR WITHIN THE USA 801-491-3717

2. Hazard(s) identification

Hazard Classification

Physical Hazards

Flammable liquids Category 4

Health Hazards

Acute toxicity (Oral) Category 4
Acute toxicity (Inhalation) Category 4
Acute toxicity (Dermal) Category 4
Skin Corrosion/Irritation Category 2
Serious eye damage/Eye irritation Category 2A
Carcinogenicity Category 2
Organ Systemic Toxicity - Single Exposure Category 3 - narcotic effects, respiratory irritation
Organ Systemic Toxicity - Repeat Exposure Category 2
Aspiration Hazard Category 1
Aquatic Toxicity (Acute) Category 2
Aquatic Toxicity (Chronic) Category 2



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Label Elements**Hazard Symbol:****Signal Word:**

Danger

Hazard Statement:

	Combustible liquid.
H226:	Flammable liquid and vapour.
H302:	Harmful if swallowed.
H304:	May be fatal if swallowed and enters airways.
H312:	Harmful in contact with skin.
H315:	Causes skin irritation.
H319:	Causes serious eye irritation.
H332:	Harmful if inhaled.
H335:	May cause respiratory irritation.
H336:	May cause drowsiness or dizziness.
H350:	May cause cancer.
	Causes damage to organs (lungs, eyes). May cause damage to organs (central nervous system) through prolonged or repeated exposure.
H373:	May cause damage to organs through prolonged or repeated exposure. (hematopoietic system [blood forming], respiratory system, and nose)
H401:	Toxic to aquatic life.
H411:	Toxic to aquatic life with long lasting effects.

Precautionary Statement:**Prevention:**

P201: Obtain special instructions before use. P202: Do not handle until all safety precautions have been read and understood. 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/light/ and other equipment. P242: Use only non-sparking tools. P243: Take precautionary measures against static discharge. P260: Do not breathe dust / fume / gas / mist / vapors / spray. Avoid release to the environment. Wash hands, forearms, and face thoroughly after handling. Wear nitril protective gloves and wear protective clothing including eye protection. face protection. Use only outdoors or in a well-ventilated area.

Response:

P301 + 310: IF SWALLOWED: Immediately call a POISON CENTER or doctor / physician. P303 + 361 + 353: IF ON SKIN (or hair): Remove / take off immediately all contaminated clothing. Rinse skin with water / shower. P304 + 340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P305 + 351 + 338: IF IN EYES: Rinse cautiously with water for several minutes.



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Remove contact lenses if present and easy to do – continue rinsing. P308 + 313: IF exposed or concerned: Get medical advice/attention. P312: Call a POISON CENTER or doctor / physician if you feel unwell. P314: Get Medical advice/attention if you feel unwell. P330: Rinse mouth. P331: Do NOT induce vomiting. P332 + 313: If skin irritation occurs, get medical advice / attention. P337 + 313: If eye irritation persists, get medical advice / attention. P391: Collect spillage. IN CASE OF FIRE: Use water spray or fog, foam, carbon dioxide, dry chemical to extinguish.

Storage: P403 + 235: Store in a well ventilated place. Keep cool. P405: Store locked up.

Disposal: P501: Dispose of contents/container to in accordance with local/regional/national/international regulation (to be specified).

3. Composition/Information on Ingredients

Chemical name	CAS number	Percent by Weight
Solvent Naptha, Light Aromatic	64742-95-6	18.4 - 23%
2-Ethylhexyl Nitrate	27247-96-7	15 - 17.5%
1,2,4-Trimethylbenzene	95-63-6	10.58 - 15.3 %
Proprietary blend of hydrocarbons	Trade Secret	7 - 10.5 %
1,3,5-Trimethylbenzene (mesitylene)	108-67-8	3.71 - 7.28 %
Solvent Naptha, Heavy Aromatic	64742-94-5	3.515 - 7.02 %
2-Ethylhexanol	104-76-7	0.7 - 3.5%
1,2,3-Trimethylbenzene	526-73-8	0.7 - 3.5 %
Linoleic acid	60-33-3	< 0.7 %
Cumene	98-82-8	< 0.45 %
Xylene	1330-20-7	< 0.31 %
Oleic acid (TOFA)	112-80-1	< 0.14 %
Kerosine, hydrodesulfurized	64742-81-0	< 0.14 %
Vinyl Acetate monomer	24937-78-8	< 0.07 %
Naphthalene	91-20-3	0.2 - 0.82 %
Ethylbenzene	100-41-4	< 0.035 %
Soy methyl ester	67784-80-9	5%
Aromatic Hydrocarbons	-----	2.05 - 3.49 %
2-Butoxyethanol	111-76-2	2 - 3 %
Cymenes	25155-15-1	0.0016 - 0.024 %
Copolymer of maleic and olefin	Trade Secret	0.4 - 0.6 %
1-ethyl-2-Methylbenzene	611-14-3	0.016 - 0.06 %
n-Propylbenzene	103-65-1	0.01 - 0.2 %
m-Ethyltoluene	620-14-4	0.032 - 0.096 %
2,6-Di-tert-butylphenol	128-39-2	0.038 - 0.05 %
Isooctanol mixture	68526-83-0	0.005 - 0.025 %



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* Note that the chemical identity of some or all of the above components is considered confidential business information and is being withheld as permitted by 29 CFR 1910.1200 and various State Right-To-Know Laws.

*A subset of the components listed above has been tested as a mixture.

4. First-aid Measures

General Information:	Warning before intervention. Before attempting to rescue casualties, isolate area from all potential sources of ignition including disconnecting electrical supply. Ensure adequate ventilation and check that a safe, breathable atmosphere is present before entry into confined spaces. Drench contaminated clothing with water before removing to avoid risk of sparks from static electricity.
Ingestion:	<p>If swallowed, do NOT induce vomiting, but have the victim rinse mouth with water, and then drink 2 - 4 cups of water. Get immediate medical attention. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep head below hips to prevent aspiration.</p> <p>Ingestion (swallowing) of this material may result in an altered state of consciousness and loss of coordination. Do NOT induce vomiting, if vomiting does occur, have victim lean forward to reduce risk of aspiration. Get medical attention immediately. Clean mouth with water and drink afterwards plenty of water. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. In case of ingestion, always assume that aspiration has occurred. The person should be sent immediately to a hospital. Do not wait for symptoms to develop. Do not induce vomiting as there is high risk of aspiration.</p>
Inhalation:	<p>Remove to fresh air. If not breathing, give artificial respiration and contact a physician immediately. If breathing is difficult, administer oxygen and contact a physician immediately.</p> <p>Symptoms: inhalation of vapors may cause headache, nausea, vomiting and an altered state of consciousness. If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If the casualty is unconscious and: Not breathing – ensure that there is no obstruction to breathing and give artificial respiration by trained personnel. If necessary, give external cardiac massage and obtain medical assistance. Breathing - place in the recovery position and keep the head below the level of the torso. Administer oxygen if necessary. Obtain medical attention if casualty has an altered state of consciousness or if symptoms do not resolve. Remove to fresh air as quickly as possible. Immediately begin artificial respiration if breathing has ceased. Provision of oxygen may help. Obtain medical advice for further treatment.</p>
Eye Contact:	<p>Immediately flush with plenty of water, alternately lifting the upper and lower eyelids. If appropriate, after 5 minutes, remove contact lenses and continue flushing the eyes for an additional 15 minutes. Get medical attention if irritation persists.</p> <p>Symptoms: slight irritation (unspecific). Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. If irritation, blurred vision or swelling occurs and persists, obtain medical advice from a specialist.</p>
Skin Contact:	<p>Wash skin with plenty of soap and water while removing contaminated clothing and shoes. Get medical attention if irritation develops or persists. Wash clothing separately before reuse.</p> <p>Symptoms: reddening, irritation. Remove contaminated clothing and footwear and dispose of safely. Wash affected area with soap and water. Seek medical attention if skin irritation, swelling or redness develops and persists.</p>



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Note To Physician: Activated charcoal mixture may be administered. To prepare activated charcoal mixture, suspend 50 grams activated charcoal in 400 mls of water and mix thoroughly. Administer 5 ml/kg or 350 ml for an average adult. Because of the danger of aspiration, emesis or gastric lavage should not be employed unless the risk justified by the presence of additional toxic substances. Activated charcoal may induce vomiting, but may be given after emesis or lavage to absorb toxic additives. Steroid therapy in mild to moderate cases does not improve outcome. Bacterial pneumonia often occurs after exposure, but prophylactic antibiotics are not indicated and should be reserved for documented bacterial pneumonia. Light hydrocarbons have been associated with cardiac sensitization in abuse situations. Hypoxia or the injection of adrenaline-like substances enhanced these effects.

5. Fire-fighting measures

Flash Point: 50.6 °C (123 F)

Explosive Limits: When heated above 100 C, may undergo a self-accelerating, exothermic reaction which causes a rapid rise in temperature and pressure. Rupture of storage vessels and fire should be anticipated in case of such temperatures. Spray storage vessels with water to maintain temperature below 100 C.

Autoignition Point: Not determined

Suitable Extinguishing Media: Dry chemical, water spray (fog), carbon dioxide, foam.

Fire Fighting Instructions: Do not use direct water jets on the burning product; they could cause splattering and spread the fire. Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam. As in any fire, wear self-contained breathing apparatus pressure-demand MSHA / NIOSH (approved or equivalent) and full protective gear. Avoid breathing smoke and vapor.

Flammable Properties And Hazards: Flammable Liquid. Vapors will burn releasing toxic vapors, fumes and smoke, including carbon monoxide and organic vapors. Containers exposed to intense heat from fires should be cooled with water to prevent vapor pressure buildup which could result in container rupture or explosion. Thermal decomposition products may include C, CO, CO₂, H₂O, organic vapors. Use water spray to keep fire-exposed containers cool.

Hazardous Combustion Products: Carbon Oxides

Reactivity in case of fire: On burning: release of carbon monoxide - carbon dioxide.

6. Accidental release measures

Protective Precautions, Protective Equipment and Emergency Procedures: Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep personnel removed and upwind of spill. Eliminate all ignition sources. Keep unnecessary and unprotected personnel from entering.

Environmental Precautions: Steps To Be Taken In Case Material Is Released Or Spilled: **Initial Containment:** Eliminate all sources of ignition - heat, sparks, flame, electricity, and impact. Contain spilled material with dikes or absorbents. Marine Pollutant. Do not allow material to enter soil, surface water, or sewer system.



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Large Spills Procedure: Stop the source of the leak, if it is safe to do so. Contain spilled material. Vacuum or sweep up material and place in a disposal container. Absorb residue with inert material (e.g. dry sand or earth,) then place in a chemical waste container. Do not flush to sewer. Use explosion-proof equipment during clean-up.

Small Spills Procedure: Absorb spills with inert material. Transfer to a chemical waste container and dispose of properly. Spills are extremely slippery and should be cleaned up immediately.

Miscellaneous: Treat or dispose of in accordance with all federal, state, and local requirements. Report spills to local authorities and / or the U.S. Coast Guard's National Response Center at (800) 424-8802 as appropriate or required.

7. Handling and Storage

Precautions To Be Taken In Handling: Ground and bond containers when transferring material. Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Keep away from food and drinking water. Secure container after each use. Store in a cool dry, secure area. Keep out of reach of children. Ground containers when transferring material. Avoid contact with strong oxidizing agents. Empty containers contain residue (solid, liquid, and / or vapor) and can be dangerous. Empty drums should be completely drained, properly bunged, and promptly returned to a drum reconditioner, or properly disposed of.

Precautions To Be Taken In Storing: Store in a tightly closed container. Store in a cool dry place. Eliminate all sources of ignition - heat, sparks, flame, electricity, impact and friction. Contact with hot surfaces may ignite the product. Keep container in a well-ventilated place. Store at ambient temperature. Keep out of direct sunlight. Meet the legal requirements.

Other Precautions: DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

Maximum Storage / Handling Temperature: 35°C / 95°F

Handling Temperatur: To handle the product, $\geq 10^{\circ}\text{C}$ above melting point.

8. Exposure Controls / Personal Protection

Control Parameters: Occupational Exposure Limits

Solvent Naptha, Light Aromatic	OSHA PEL 100 ppm, 400 mg/m ² ; TWA value 100 ppm, 400 mg/m ³
1,2,4-Trimethylbenzene	ACGIH TWA: 25 ppm
1,3,5-Trimethylbenzene (mesitylene)	ACGIH TWA: 25 ppm, OSHA PEL: 25 ppm
Solvent Naptha, Heavy Aromatic	OSHA PEL 100 ppm, 400 mg/m ² ; TWA value 100 ppm, 400 mg/m ³
1,2,3-Trimethylbenzene	ACGIH TWA: 25 ppm, OSHA PEL: 25 ppm
Cumene	OSHA PEL: 50 ppm 245 mg/m ³ , ACGIH TLV 50ppm, TWA: 246 mg/m ³
Xylene	OSHA TWA: 100 ppm / ACGIH TWA: 100 ppm / OSHA STEL: 150 ppm / ACGIH STEL: 150 ppm
Oleic acid (TOFA)	OSHA TWA: 5 mg/m ³ (oil mist) / ACGIH TWA: 5 mg/m ³ (oil mist); ACGIH TWA: 3 mg/m ³ (respirable); 10 mg/m ³ (inhalable)



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Kerosine, hydrodesulfurized	TLV 200 mg/m ³ , 8 hr time-weighted average
Vinyl Acetate monomer	ACGIH TWA: 10 ppm ; STEL value 15 ppm; OSHA TWA: 15 mg/m ³ (total dust); 5 mg/m ³ (respirable)
Naphthalene	OSHA PEL: 10 ppm, 50 mg/m ³ , OSHA TWA: 10 ppm, 50 mg/m ³ , ACGIH TWA: 10 ppm, 52 mg/m ³ , OSHA STEL: 15 ppm, 75 mg/m ³ , ACGIH STEL: 15 ppm, 79 mg/m ³ (on California Proposition 65 list)
Ethylbenzene	(on California Proposition 65 list)
Xylene (1330-20-7)	TWA 221 mg/m 350 ppm (OEL (EU)) indicative STEL 442 mg/m ³ 100 ppm (OEL (EU)) indicative Skin Designation: The substance can be absorbed through the skin.
Naphtha (petroleum), hydrotreated Heavy	(64742-48-9) TWA 10 ppm PEL TWA 50 mg/m ³ 10 ppm TWA 400 mg/m ³ 100 ppm Skin Designation: The substance can be absorbed through the skin.
Naphthalene (91-20-3)	TWA 10 ppm PEL TWA 50 mg/m ³ 10 ppm TWA 400 mg/m ³ 100 ppm Skin Designation: The substance can be absorbed through the skin.
1,2,4-Trimethylbenzene (95-63-6)	TWA 123 mg/m ³ 25 ppm
1,3,5-Trimethylbenzene (108-67-8)	TWA 123 mg/m ³ 23 ppm
1,2,3-Trimethylbenzene (526-73-8)	TWA 123 mg/m ³ 25 ppm
Cumene (98-82-8)	TWA 245 mg/m ³ 50 ppm PEL TWA 50 ppm
2-Butoxyethanol (111-76-2)	ACGIH TWA 20 ppm OSHA TWA 50 ppm NOISH IDLH 700 ppm

- Eye Protection:** Wear safety glasses with side shields (or goggles) and a face shield.
- Engineering Controls (Ventilation etc.):** Ensure that eyewash stations and safety showers are proximal to the work-station location.
- Respiratory Protection:** If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA Standard 63 FR 1152, January 8, 1998. Respirator type: Air-purifying respirator with an appropriate, government approved (where applicable), air-purifying filter, cartridge or canister. Contact health and safety professional or manufacturer for specific information.
- Skin Protection:** Can be absorbed through the skin (CAS# 91-20-3)Wear long sleeves to prevent repeated or prolonged skin contact. Wear protective, chemical gloves to minimize skin contamination. When prolonged or frequently repeated contact could occur, use protective clothing impervious to this material. Wash hands thoroughly after handling. Apron and long sleeves are recommended.
- Engineering Controls:** Good general ventilation (typically 10 air changes per hour) 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.
- 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.



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9. Physical and chemical properties

Form:	Liquid
Appearance (Color):	Clear, amber (1.5)
Odor:	Aromatic hydrocarbon
Odor Threshold:	Not determined
Melting Point:	Not determined
Boiling Point:	>200 °C (392 °F)
Autoignition Point:	Not determined
Flash Point:	50.6 °C (123 °F)
Explosive Limits:	Not determined
Upper / Lower Flammability or Explosive Limits:	Not determined
Specific Gravity (Water = 1):	0.897 at 60 °F
Vapor Pressure (vs. Air or mm Hg):	Not determined
Vapor Density (vs. Air = 1):	Not determined
Relative Density:	7.48 lbs/gal
Evaporation Rate:	Not determined
Solubility in Water:	Insoluble
pH:	Not determined
Percent Volatile:	Not determined
Partition Coefficient:	n-octanol / water: Not determined
Decomposition Temperature:	Not determined
Viscosity:	3.43 cSt @40 °C (calculated)
Explosive Properties:	Risk of explosion if heated under confinement.

10. Stability and reactivity

Stability:	Stable under ordinary conditions of use and storage.
Incompatibility - Materials To Avoid:	Avoid contact with strong oxidizing agents, such as nitric and sulfuric acids, halogens, hydrogen peroxide and chlorinating agents. Incompatible with (strong) acids and (strong) bases. May burn or react violently with fluorine / oxygen mixtures with 50-100% fluorine. Decomposes with heat. Avoid direct sunlight.
Hazardous Decomposition Or Byproducts:	In the case of fire, a complex mixture of airborne solids, liquids and gases, including carbon monoxide, carbon dioxide, smoke and other organic compounds will be evolved when this material undergoes combustion or thermal or oxidative degradation. Thermal decomposition products may include C, CO, CO ₂ , H ₂ O, organic vapors.
Hazardous Polymerization:	Will not occur.
Conditions To Avoid:	Sources of ignition and temperatures above 50 °C (122 °F) – 60 °C (140 °F).



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11. Toxicological Information

Ethylbenzene	LD50 Rat oral 5.46 g/kg; LD50 Rat oral 3500 mg/kg; LD50 Mouse ip 2272 mg/kg; LD50 Rabbit skin 17,800 mg/kg
2-Ethylhexanol	LC50 Guinea pig inhalation > 227 ppm/6 hr; LD50 Guinea pig dermal > 8300 mg/kg; LD50 Rabbit dermal 1986 mg/kg; LC50 Mouse > 227 ppm/6 hr; LD50 Mouse ip 780 mg/kg
Solvent Naphtha, Heavy Aromatic	LD50 Rabbit skin >2mL/kg; LC50 Rat inhalation > 590 mg/m ³ 4 hr; LDLo Rat oral 5 mL/kg
Solvent Naphtha, Light Aromatic	LD50 Rat oral 8400mg/kg; LD50 Quail oral > 2150mg/kg; no deaths reported at 4 ml/kg (Rat). Slightly irritating (skin, rabbit, 4 hours). Slightly irritating (eye, rabbit). No deaths at 710 ppm (v) (Rat) 4 Hour (inhalation).
1,2,4-Trimethylbenzene	LD50 Rabbit dermal >3160 mg/kg; LC50 Rat inhalation >2000 ppm/48 hr; LD50 Rat (male, Wistar) oral 6.0 g/kg /98% Pseudocumene/; LD50 Rat (male) oral 3550 mg/kg (3040-4130 mg/kg, 95% confidence limits); LD50 Rat (female, Charles River CD) oral 3280 mg/kg (2720-3960 mg/kg, 95% confidence limits)
1,3,5-Trimethylbenzene	LD100 Rat ip 1.5-2.0 g/kg (minimum fatal dose)
1,2,3-Trimethylbenzene	LDLo rat oral 10mL/kg
Xylene	LC50 Mouse inhalation 3900 ppm for 6 hr exposure; LD50 Rat (female) ip 3.8 mg/kg
Cumene	LC50 Mouse inhalation 2,000 ppm/7 hr; LD50 Rat oral 2.91 g/kg; LC50 Rat inhalation 8000 ppm/4 hr; LD50 Rat oral 1400 mg/kg; LC50 Mouse inhalation 24,700 mg/cu m/2 hr; LD50 Rat dermal 10.6 g/kg
Naphthalene	LD50 Sprague Dawley rat oral 2.6 g/kg, LD50 New Zealand White rabbit dermal >2.0 g/kg, LD50 Male CD-1 mouse gavage 533 mg/kg, LD50 Female CD-1 mouse gavage 710 mg/kg, LD50 Mouse ip 150 mg/kg, LD50 Mouse subcutaneous 969 mg/kg, LD50 Mouse iv 100 mg/kg, LD50 Mouse oral 533 mg/kg, LD50 Guinea pig oral 1200 mg/kg, LD50 Rat oral 490 mg/kg, LD50 Rat dermal >20 g/kg, LD50 Male Sherman rat oral 2200 mg/kg, LD50 Female Sherman rat oral 2400 mg/kg
2-Ethylhexyl Nitrate	LD50 Oral - Rat - 960 mg/kg
Linoleic Acid	LD50 Mouse ip 280 mg/kg
Oleic Acid	LD50 Rat oral 74 g/kg; LD50 Rat iv 2.4 mg/kg; LD50 Mouse iv 230 mg/kg; LD50 Guinea pig dermal >3000 mg/kg
Palmitic Acid	LD50 Rat >10000 mg/kg
Vinyl Acetate Monomer	Skin absorption LD50 is 2,335 mg/kg in rabbits. Severe eye irritant (rabbit). Oral LD 50 for Vinyl Acetate Monomer is 2,920 mg/kg in rats. LC50 is 4,000 ppm in rats (4 hr inhalation).
Solvent Naptha	LD50 rat (Oral): >2,000 mg/kg, LD50 rat (Dermal): > 2,000 mg/kg, LC50 rat (Inhalation): >5 mg/l/4h inhalation form: Aerosol (mist)



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1,2,4-Trimethylbenzene	LD50 rat (oral): 5000 mg/kg, LD50 rabbit (dermal): >3160 mg/kg, LC50 rat (inhalation): 18 mg/l/4h
1,3,5-Trimethylbenzene	LD50 rat (oral): 5000 mg/m ³ Based on 1,2,4-trimethylbenzene, LD50 rabbit (dermal): >3160 mg/kg Based on 1,2,4-trimethylbenzene, LC50 rat (inhalation): 24 mg/l/4h (Exposure time: 4h)
1,2,3-Trimethylbenzene	LD50 rat(oral): 5000 mg/kg Based on 1,2,4-trimethylbenzene, LD50 rabbit (dermal): >3160 mg/kg 1,2,4-trimethylbenzene, LC50 rat (inhalation): 10.2 mg/l/4h Based on a mixture of trimethylbenzenes
n-Propylbenzene	LD50 rat (oral): 6040 (6040-7500) mg/kg, LD50 rat (dermal): 10600 mg/kg Based on Isopropyl benzene, LC50 rat (inhalation): 422 g/m ³ (Exposure time: 2h)
Xylenes (o-, m-, p- isomers)	LD50 rat (oral): 4300 mg/kg, LD50 rabbit (dermal): >4200 mg/kg, LC50 rat (inhalation): 21.7 mg/l/4h
Cumene	LD50 rat (oral): 1400 mg/kg, LD50 rat (dermal): 10600 mg/kg, LC50 rat (inhalation): 39 mg/l/4h
2-Butoxyethanol	LD50 guinea pig (oral): 1414 mg/kg Based on ethyl tertiary butyl ether, LD50 guinea pig (dermal): >2000 mg/kg, LC0 guinea pig (inhalation): >3.1 mg/lg (Exposure time: 1 hour)
Isooctanol mixture	LD50 rabbit (dermal): >2520 mg/kg, LD50 rat (oral): >1480 mg/kg
Target Organ Systemic Toxicant- Single Exposure	Routes of exposure: Inhalation Target Organs: Central nervous system Symptoms: May cause drowsiness or dizziness. High concentrations may cause central nervous system depression. Causes damage to organs (lungs). May cause damage to organs (central nervous system, brain).
Target Organ System Systemic Toxicant- Repeated Exposure	Solvent naptha, Causes damage to organs (nervous system) through prolonged or repeated exposure. May cause damage to organs, (hematopoietic system [blood forming], respiratory system) through prolonged or repeated exposure.
Aspiration Hazard	May be fatal if swallowed and enters airways.
Carcinogenicity:	Suspected of causing cancer. Cancer Lists: NTP Carcinogen, Known: No, Anticipated: No, IARC Category: None
1, 2, 4-trimethylbenzene (95-63-6)	National Toxicology Program (NTP) Status: Not listed
Xylenes (o-m-, p- isomers) (1330-20-7)	IARC group 3- Not classifiable
Cumene (98-82-8)	IARC group 2B- Possibly carcinogenic to humans, National Toxicology Program (NTP) Status: Reasonably anticipated to be a Human Carcinogen
Naphthalene (91-20-3)	IARC 2B- Possibly carcinogenic to humans, National Toxicology Program (NTP) Status: Reasonably Anticipated to be a Human Carcinogen



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Germ Cell Mutagenicity:	No data available
Target Organs:	Heart, Auditory System
STOT - Single Exposure:	No data available
Repeated dose toxicity	<i>Information on Solvent Naphtha</i> - Assessment of chronic effects: Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects. <i>Information on Ethylene Glycol Monobutyl Ether</i> - Long-term exposure via inhalation at concentrations up to 125 ppm caused an increase in the incidence of liver tumors in male mice and forestomach tumors in female mice. A slight increase in adrenal tumors was observed in female rats. The NTP has determined that EGBE displays some evidence of carcinogenicity in mice, and equivocal evidence of carcinogenicity in female rats.
Other Acute:	Prolonged or repeated skin contact may cause drying, cracking or irritation.

12. Ecological Information

Ecotoxicity: Very toxic to aquatic organisms; may cause long-term adverse effects in the aquatic environment. The product hasn't been tested. The statement derived from the properties of the individual components.

General Ecological Information: Environmental:

- Based on a recommended classification scheme, an estimated Koc value of 67, determined from an experimental log Kow and a recommended regression-derived equation, indicates that ethylene glycol mono-n-butyl ether is expected to have high mobility in soil.
- An estimated BCF value of 2.5 was calculated for ethylene glycol mono-n-butylether, using an experimental log Kow of 0.83 and a recommended regression-derived equation. According to a recommended classification scheme, this BCF value suggests that bioconcentration in aquatic organisms is low.
- An estimated BCF value of 2.5, from an experimental log Kow, suggests that ethylene glycol mono-n-butyl ether bioconcentration in aquatic organisms will be low, according to a recommended classification scheme. Bioconcentration in aquatic organisms is moderate to high based on BCF values of 31-275, measured in carp.
- 1,2,4-Trimethylbenzene is expected to photodegrade in natural waters. If released to the atmosphere, 1,2,4-trimethylbenzene will exist solely in the vapor phase in the ambient atmosphere. Vapor-phase 1,2,4-trimethylbenzene is degraded in the atmosphere by reaction with photochemically-produced hydroxyl radicals and nitrate radicals with half-lives of about 12 hours and 6-30 days, respectively.

Mobility in Soil

Surface Tension: ca. 0.03 N/m (20 °C)

13. Disposal considerations

Disposal Methods:

Under the CERCLA / RCRA regulations currently in effect, this material is regulated as a hazardous waste or material. Therefore, it must be disposed of in a "permitted" hazardous waste facility in compliance with EPA and/or other applicable local, state



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and federal regulations. Do not dispose of into waste water treatment facilities. Treat or dispose of waste material in accordance with all local, state/provincial, and national requirements. This material, if discarded, is considered a hazardous waste under RCRA Regulation 40 CFR 261.

Contaminated Packaging:

Container packaging may exhibit hazards.

14. Transport Information**DOT**

UN Number: NA 1993
Packing Group: III
UN Proper Shipping Name: Combustible liquid, n.o.s. (Petroleum naphtha, 2 - Ethylhexyl nitrate) Combustible liquid, n.o.s. (Contains SOLVENT NAPHTHA, 1,3,5-trimethylbenzene)

Land Transport ADR/RID and GGVS/GGVE (Cross Border / Domestic)

Transport Hazard Class(es): 3*
Secondary Hazard Class: Marine Pollutant (1,3,5-Trimethylbenzene, naphthalene)

Maritime Transport IMDG/GGVSea

UN Number: UN 1993
Packing Group: III
UN Proper Shipping Name: Flammable, n.o.s. (Contains SOLVENT NAPHTHA, 1,3,5-trimethylbenzene)
Transport Hazard Class(es): 3
Marine Pollutant: Yes** (2- Ethylhexyl nitrate, 1,3,5-trimethylbenzene)

IATA-DGR and Air Transport ICAO-TI

UN Number: UN 1993
Packing Group: III
UN Proper Shipping Name: Flammable liquid, n.o.s. (Contains SOLVENT NAPHTHA, 1,3,5-trimethylbenzene)
Transport Hazard Class(es): 3

Substance	RQ	Weight to Require RQ on BOL
Cumene	5,000 lbs.	500,000 lbs. of product
Naphthalene	100 lbs.	>11,000 lbs. of product
Xylenes	100 lbs.	>10,000 lbs. of product

* This material is not regulated for US DOT transportation in quantities less than 119 gallons per 49 CFR 173:120 (b)(1). Does not apply to transportation by vessel, aircraft or package shipping services.

** This material is a marine pollutant when shipped in quantities greater than 119 gallons.

Shipping descriptions may vary based on mode of transport, quantities, temperature of the material, package size, and/or origin and destination. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transport of the material. Review classification requirements before shipping materials at elevated temperatures.



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15. Regulatory Information

EPCRA 311/312 Categories:

1. Immediate (Acute) Health Effects: YES
2. Delayed (Chronic) Health Effects: YES
3. Fire Hazard: YES
4. Sudden Release of Pressure Hazard: NO
5. Reactivity Hazard: NO

Components	CAS Number	State Right to Know				
		NJ	PA	MA*	MN	RI
Ethylbenzene	100-41-4	Yes	Yes		Yes	Yes
2-Ethylhexanol	104-76-7	No	Yes		No	No
Solvent Naphtha, Heavy Aromatic	64742-94-5	Yes	Yes		No	No
Solvent Naphtha, Light Aromatic	64742-95-6	No	No		No	No
1,2,4-Trimethylbenzene	95-63-6	Yes	Yes		No	No
1,3,5-Trimethylbenzene	108-67-8	No	No		No	No
1,2,3-Trimethylbenzene	526-73-8	No	No		No	No
Xylene	1330-20-7	Yes	Yes		Yes	Yes
Cumene	98-82-8	Yes	Yes		Yes	Yes
Naphthalene	91-20-3	Yes	Yes		Yes	Yes
2-Ethylhexyl Nitrate	27247-96-7	Yes	Yes		No	No
Linoleic acid	60-33-3	No	No		No	No
Oleic acid	112-80-1	No	Yes		No	Yes
Vinyl Acetate monomer	24937-78-8	No	No		No	No
2-Butoxyethanol	111-76-2	Yes	Yes		Yes	Yes

*Massachusetts: All known ingredients of this product which could be on the Massachusetts Right-To-Know list are fully disclosed in the "chemical ingredients" section of this SDS.

CA Prop. 65: This product contains a chemical(s) known to the state of California to cause cancer and birth defects or other reproductive harm.

Components	CAS Number	Canadian Disclosure List	Clean Air Act - Section 112 SC Toxic Air Pollutants List	Title V
Ethylbenzene	100-41-4	Yes	No	Yes
2-Ethylhexanol	104-76-7	Yes		
Solvent Naphtha, Heavy Aromatic	64742-94-5			
Solvent Naphtha, Light Aromatic	64742-95-6			
1,2,4-Trimethylbenzene	95-63-6	Yes		Yes
1,3,5-Trimethylbenzene	108-67-8	Yes		
1,2,3-Trimethylbenzene	526-73-8	Yes		
Xylene	1330-20-7		Yes	Yes
Cumene	98-82-8	Yes	Yes	Yes



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Naphthalene	91-20-3	Yes	Yes	Yes
2-Ethylhexyl Nitrate	27247-96-7		No	No
Linoleic acid	60-33-3			
Oleic acid	112-80-1			
Vinyl Acetate monomer	24937-78-8		Yes	Yes

Components	CAS Number	Section 302 (EHS) TPQ	Section 304 EHS RQ lbs	CERCLA RQ lbs	Section 313	RCRA CODE	CAA 112(r) TQ
Ethylbenzene	100-41-4			1,000	313		
2-Ethylhexanol	104-76-7						
Solvent Naphtha, Heavy Aromatic	64742-94-5						
Solvent Naphtha, Light Aromatic	64742-95-6						
1,2,4-Trimethylbenzene	95-63-6				313		
1,3,5-Trimethylbenzene	108-67-8						
1,2,3-Trimethylbenzene	526-73-8						
Xylene	1330-20-7			100	313	U239	
Cumene	98-82-8			5,000	313	U055	
Naphthalene	91-20-3			100	313	U165	
2-Ethylhexyl Nitrate	27247-96-7						
Linoleic acid	60-33-3						
Oleic acid	112-80-1						
Vinyl Acetate monomer	24937-78-8	1,000	5,000	5,000	X		15,000

16. Other information, including date of preparation or last revision

HMIS Hazard ID

Health	2
Flammability	2
Physical Hazards	0

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating Not Possible;

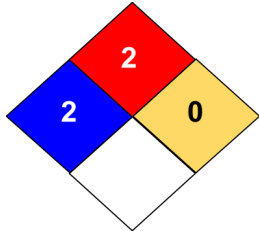
*Chronic health effect



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NFPA Hazard ID



Flammability
Health
Reactivity

Flammability

Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe; RNP - Rating Not Possible;

Issue Date: 6/15/20

Version #: 1.2

Source of Information: Internal Company data and other publically available resources.

Further Information: Contact Supplier (see Section 1)

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