

SAFETY DATA SHEET

Gen 49D



Section 1. Identification

GHS product identifier : Gen 49D
Product code : Not available.
Other means of identification : Not available.
Product type : Liquid.

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

Identified uses : Diesel Fuel Additive.

Supplier/Manufacturer : Awsum Outcomes Inc.
 Bay 5, 409 38th Avenue NE Calgary Alberta Canada T2E 6R9
 Tel: 1 587-353-2000
 Toll Free: 1-844-512-4093
 Email: sales@wvi.global
 Web: www.awsumoutcomes.com

Emergency telephone number (with hours of operation) : CANUTEC - 24 hr Emergency No. 1-888-CANUTEC (226-8832) (North American use) and/or 1-613-996-6666 (International use)
 1-844-512-4093 8am to 4pm MST

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 4
 ACUTE TOXICITY (oral) - Category 4
 CARCINOGENICITY - Category 2
 TOXIC TO REPRODUCTION (Unborn child) - Category 2
 ASPIRATION HAZARD - Category 1
 AQUATIC HAZARD (ACUTE) - Category 2
 AQUATIC HAZARD (LONG-TERM) - Category 2

GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H227 - Combustible liquid.
 H302 - Harmful if swallowed.
 H361 - Suspected of damaging the unborn child.
 H351 - Suspected of causing cancer.
 H304 - May be fatal if swallowed and enters airways.
 H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements

Section 2. Hazards identification

Prevention	: P201 - Obtain special instructions before use. P202 - Do not handle until all safety precautions have been read and understood. P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing. P210 - Keep away from flames and hot surfaces. - No smoking. P273 - Avoid release to the environment. P270 - Do not eat, drink or smoke when using this product. P264 - Wash hands thoroughly after handling.
Response	: P391 - Collect spillage. P308 + P313 - IF exposed or concerned: Get medical attention. P301 + P310 + P330 + P331 - IF SWALLOWED: Immediately call a POISON CENTER or physician. Rinse mouth. Do NOT induce vomiting.
Storage	: P405 - Store locked up. P403 - Store in a well-ventilated place. P235 - Keep cool.
Disposal	: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
Hazards not otherwise classified	: None known.

Section 3. Composition/information on ingredients

Substance/mixture	: Mixture
Other means of identification	: Not available.

Ingredient name	%	CAS number
2-Ethylhexyl nitrate	30 - 60	27247-96-7
Solvent Naphtha (Petroleum), Heavy Arom.	30 - 60	64742-94-5
Xylene	1 - 5	1330-20-7
Naphthalene	1 - 5	91-20-3
2-(2-Methoxyethoxy)ethanol	1 - 5	111-77-3
1,2,4-Trimethylbenzene	1 - 5	95-63-6
Ethylbenzene	0.1 - 1	100-41-4

United States: The exact percentage (concentration) in the composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200.

Canada: The exact percentage (concentration) in the composition has been withheld as a trade secret in accordance with the amended HPR as of April 2018.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact	: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Get medical attention.
Inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may

Section 4. First aid measures

- need to be kept under medical surveillance for 48 hours.
- Skin contact** : Flush contaminated skin with plenty of water. Continue to rinse for at least 20 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : No known significant effects or critical hazards.
- Ingestion** : Harmful if swallowed. May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

- Eye contact** : No known significant effects or critical hazards.
- Inhalation** : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:
reduced fetal weight
increase in fetal deaths
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:
nausea or vomiting
reduced fetal weight
increase in fetal deaths
skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use dry chemical, CO₂, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water jet or water-based fire extinguishers.

Specific hazards arising from the chemical

: Combustible liquid. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous thermal decomposition products

: Decomposition products may include the following materials:
 carbon dioxide
 carbon monoxide
 nitrogen oxides

Special protective actions for fire-fighters

: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters

: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions

: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

Methods and materials for containment and cleaning up

Spill : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures

- Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not swallow. Avoid breathing vapor or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene

- : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures. Remove contaminated clothing and protective equipment before entering eating areas.

Conditions for safe storage, including any incompatibilities

- : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls/personal protection

Control parameters

United States

Occupational exposure limits

Ingredient name	Exposure limits
2-Ethylhexyl nitrate Solvent Naphtha (Petroleum), Heavy Arom. Xylene	None. None. ACGIH TLV (United States, 3/2018). TWA: 100 ppm 8 hours. TWA: 434 mg/m ³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 651 mg/m ³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 100 ppm 8 hours. TWA: 435 mg/m ³ 8 hours.
Naphthalene	ACGIH TLV (United States, 3/2018). Absorbed through skin. TWA: 10 ppm 8 hours. TWA: 52 mg/m ³ 8 hours. NIOSH REL (United States, 10/2016). TWA: 10 ppm 10 hours. TWA: 50 mg/m ³ 10 hours. STEL: 15 ppm 15 minutes. STEL: 75 mg/m ³ 15 minutes. OSHA PEL (United States, 5/2018). TWA: 10 ppm 8 hours. TWA: 50 mg/m ³ 8 hours.
2-(2-Methoxyethoxy)ethanol 1,2,4-Trimethylbenzene	None. ACGIH TLV (United States, 3/2018). TWA: 25 ppm 8 hours. TWA: 123 mg/m ³ 8 hours.

Section 8. Exposure controls/personal protection

Ethylbenzene	<p>NIOSH REL (United States, 10/2016). TWA: 25 ppm 10 hours. TWA: 125 mg/m³ 10 hours.</p> <p>ACGIH TLV (United States, 3/2018). TWA: 20 ppm 8 hours.</p> <p>NIOSH REL (United States, 10/2016). TWA: 100 ppm 10 hours. TWA: 435 mg/m³ 10 hours. STEL: 125 ppm 15 minutes. STEL: 545 mg/m³ 15 minutes.</p> <p>OSHA PEL (United States, 5/2018). TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours.</p>
--------------	---

Canada

Occupational exposure limits

Ingredient name	Exposure limits
Xylene	<p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 100 ppm 8 hours. 15 min OEL: 651 mg/m³ 15 minutes. 15 min OEL: 150 ppm 15 minutes. 8 hrs OEL: 434 mg/m³ 8 hours.</p> <p>CA British Columbia Provincial (Canada, 7/2018). TWA: 100 ppm 8 hours. STEL: 150 ppm 15 minutes.</p> <p>CA Quebec Provincial (Canada, 1/2014). TWAEV: 100 ppm 8 hours. TWAEV: 434 mg/m³ 8 hours. STEV: 150 ppm 15 minutes. STEV: 651 mg/m³ 15 minutes.</p> <p>CA Ontario Provincial (Canada, 1/2018). STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.</p> <p>CA Saskatchewan Provincial (Canada, 7/2013). STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.</p>
Naphthalene	<p>CA Alberta Provincial (Canada, 6/2018). Absorbed through skin. 15 min OEL: 15 ppm 15 minutes. 8 hrs OEL: 10 ppm 8 hours. 8 hrs OEL: 52 mg/m³ 8 hours. 15 min OEL: 79 mg/m³ 15 minutes.</p> <p>CA British Columbia Provincial (Canada, 7/2018). Absorbed through skin. TWA: 10 ppm 8 hours.</p> <p>CA Ontario Provincial (Canada, 1/2018). Absorbed through skin. TWA: 10 ppm 8 hours.</p> <p>CA Quebec Provincial (Canada, 1/2014). TWAEV: 10 ppm 8 hours. TWAEV: 52 mg/m³ 8 hours. STEV: 15 ppm 15 minutes. STEV: 79 mg/m³ 15 minutes.</p> <p>CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin. STEL: 15 ppm 15 minutes. TWA: 10 ppm 8 hours.</p>
1,2,4-Trimethylbenzene	<p>CA Alberta Provincial (Canada, 6/2018). 8 hrs OEL: 123 mg/m³ 8 hours. 8 hrs OEL: 25 ppm 8 hours.</p> <p>CA British Columbia Provincial (Canada, 7/2018). TWA: 25 ppm 8 hours.</p> <p>CA Quebec Provincial (Canada, 1/2014). TWAEV: 25 ppm 8 hours. TWAEV: 123 mg/m³ 8 hours.</p> <p>CA Ontario Provincial (Canada, 1/2018). TWA: 25 ppm 8 hours.</p> <p>CA Saskatchewan Provincial (Canada, 7/2013). STEL: 30 ppm 15 minutes. TWA: 25 ppm 8 hours.</p>

Section 8. Exposure controls/personal protection

Ethylbenzene

CA Alberta Provincial (Canada, 6/2018).
8 hrs OEL: 100 ppm 8 hours.
8 hrs OEL: 434 mg/m³ 8 hours.
15 min OEL: 543 mg/m³ 15 minutes.
15 min OEL: 125 ppm 15 minutes.
CA British Columbia Provincial (Canada, 7/2018).
TWA: 20 ppm 8 hours.
CA Ontario Provincial (Canada, 1/2018).
TWA: 20 ppm 8 hours.
CA Quebec Provincial (Canada, 1/2014).
TWA_{EV}: 100 ppm 8 hours.
TWA_{EV}: 434 mg/m³ 8 hours.
STEV: 125 ppm 15 minutes.
STEV: 543 mg/m³ 15 minutes.
CA Saskatchewan Provincial (Canada, 7/2013).
STEL: 125 ppm 15 minutes.
TWA: 100 ppm 8 hours.

Appropriate engineering controls

- : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Environmental exposure controls

- : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.

Individual protection measures

Hygiene measures

- : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

- : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection

- : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Body protection

- : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection

- : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

- : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance

Physical state	: Liquid.
Color	: Amber.
Odor	: Aromatic.
Odor threshold	: Not available.
pH	: Not available.
Melting point	: Not available.
Boiling point/boiling range	: 192.08°C (377.7°F)
Flash point	: Closed cup: >60°C (>140°F) [Pensky-Martens.]
Evaporation rate	: 0.46 (Butyl acetate = 1)
Flammability (solid, gas)	: Not available.
Lower and upper explosive (flammable) limits	: Not available.
Vapor pressure	: 0.091 kPa (0.68 mm Hg) @ 20°C (68°F)
Vapor density	: 3.2 [Air = 1]
Relative density	: 0.938 [ASTM D 4052]
Solubility	: Insoluble in water.
Partition coefficient: n-octanol/water	: Not available.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Viscosity	: Kinematic (40°C (104°F)): <0.13 cm ² /s (<13 cSt)
Flow time (ISO 2431)	: Not available.

Section 10. Stability and reactivity

Reactivity	: Flammable in the presence of the following material or conditions: open flames, sparks and static discharge.
Chemical stability	: The product is stable. Decomposes violently when heated above 100°C (212°F).
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.
Incompatible materials	: Reactive or incompatible with the following materials: oxidizing materials.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Xylene	LC50 Inhalation Gas.	Rat	5000 ppm	4 hours
Naphthalene	LD50 Oral	Rat	4300 mg/kg	-
	LD50 Dermal	Rabbit	>20 g/kg	-
	LD50 Oral	Rat	490 mg/kg	-
1,2,4-Trimethylbenzene	LC50 Inhalation Vapor	Rat	18000 mg/m ³	4 hours
	LD50 Oral	Rat	5 g/kg	-
Ethylbenzene	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	3500 mg/kg	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Solvent Naphtha (Petroleum), Heavy Arom.	Skin - Mild irritant	Rabbit	-	24 hours 500 µl	-
Xylene	Eyes - Mild irritant	Rabbit	-	87 mg	-
	Eyes - Severe irritant	Rabbit	-	24 hours 5 mg	-
	Skin - Mild irritant	Rat	-	8 hours 60 µl	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 mg	-
	Skin - Moderate irritant	Rabbit	-	100%	-
Naphthalene	Skin - Mild irritant	Rabbit	-	495 mg	-
Ethylbenzene	Eyes - Severe irritant	Rabbit	-	500 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 15 mg	-

Sensitization

There is no data available.

Mutagenicity

There is no data available.

Carcinogenicity

Classification

Product/ingredient name	OSHA	IARC	NTP
Xylene	-	3	-
Naphthalene	-	2B	Reasonably anticipated to be a human carcinogen.
Ethylbenzene	-	2B	-

Reproductive toxicity

There is no data available.

Teratogenicity

There is no data available.

Specific target organ toxicity (single exposure)

Name	Category	Target organs
1,2,4-Trimethylbenzene	Category 3	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Name	Category	Target organs
Ethylbenzene	Category 2	hearing organs

Aspiration hazard

Name	Result
Solvent Naphtha (Petroleum), Heavy Arom.	ASPIRATION HAZARD - Category 1
Ethylbenzene	ASPIRATION HAZARD - Category 1

Section 11. Toxicological information

Information on the likely routes of exposure : Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.
Inhalation : No known significant effects or critical hazards.
Skin contact : No known significant effects or critical hazards.
Ingestion : Harmful if swallowed. May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No known significant effects or critical hazards.
Inhalation : Adverse symptoms may include the following:
 reduced fetal weight
 increase in fetal deaths
 skeletal malformations
Skin contact : Adverse symptoms may include the following:
 reduced fetal weight
 increase in fetal deaths
 skeletal malformations
Ingestion : Adverse symptoms may include the following:
 nausea or vomiting
 reduced fetal weight
 increase in fetal deaths
 skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : No known significant effects or critical hazards.
Potential delayed effects : No known significant effects or critical hazards.

Long term exposure

Potential immediate effects : No known significant effects or critical hazards.
Potential delayed effects : No known significant effects or critical hazards.

Potential chronic health effects

General : No known significant effects or critical hazards.
Carcinogenicity : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.
Mutagenicity : No known significant effects or critical hazards.
Teratogenicity : Suspected of damaging the unborn child.
Developmental effects : No known significant effects or critical hazards.
Fertility effects : No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE value
Oral	1082.85 mg/kg
Dermal	2386.01 mg/kg
Inhalation (gases)	141252.51 ppm
Inhalation (vapors)	24.59 mg/L

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
Naphthalene	Acute EC50 1.6 mg/L Fresh water Acute LC50 2350 µg/L Marine water Acute LC50 213 µg/L Fresh water Chronic NOEC 0.5 mg/L Marine water Chronic NOEC 1.5 mg/L Fresh water	Daphnia - Daphnia magna - Neonate Crustaceans - Palaemonetes pugio Fish - Melanotaenia fluviatilis - Larvae Crustaceans - Uca pugnax - Adult Fish - Oreochromis mossambicus	48 hours 48 hours 96 hours 3 weeks 60 days
2-(2-Methoxyethoxy)ethanol	Acute EC50 >930 ppm Fresh water Acute LC50 7500000 µg/L Fresh water	Daphnia - Daphnia magna Fish - Lepomis macrochirus	48 hours 96 hours
1,2,4-Trimethylbenzene	Acute LC50 4910 µg/L Marine water	Crustaceans - Elasmopus pecteniscus - Adult	48 hours
Ethylbenzene	Acute LC50 7720 µg/L Fresh water Acute LC50 13.3 mg/L Marine water Acute LC50 13.9 mg/L Fresh water	Fish - Pimephales promelas Crustaceans - Artemia sp. - Nauplii Daphnia - Daphnia magna - Neonate	96 hours 48 hours 48 hours

Persistence and degradability

There is no data available.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
2-Ethylhexyl nitrate	5.24	-	high
Solvent Naphtha (Petroleum), Heavy Arom.	2.8 to 6.5	99 to 5780	high
Xylene	3.12	8.1 to 25.9	low
Naphthalene	3.4	36.5 to 168	low
2-(2-Methoxyethoxy)ethanol	-0.47	-	low
1,2,4-Trimethylbenzene	3.63	243	low
Ethylbenzene	3.6	-	low

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations








Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

United States - RCRA Toxic hazardous waste "U" List

Section 13. Disposal considerations

Ingredient	CAS #	Status	Reference number
Xylene Naphthalene	1330-20-7 91-20-3	Listed Listed	U239 U165

Section 14. Transport information

	DOT Classification	TDG Classification	IMDG	IATA
UN number	NA1993	UN3082	UN3082	UN3082
UN proper shipping name	COMBUSTIBLE LIQUID, N.O.S. (Xylene, Naphthalene)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-Ethylhexyl nitrate, 1,2,4-Trimethylbenzene)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-Ethylhexyl nitrate, 1,2,4-Trimethylbenzene). Marine pollutant (2-Ethylhexyl nitrate, 1,2,4-Trimethylbenzene)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (2-Ethylhexyl nitrate, 1,2,4-Trimethylbenzene)
Transport hazard class(es)	3 	9  	9  	9  
Packing group	III	III	III	III
Environmental hazards	No.	Yes.	Yes.	Yes.

AERG : 128,171

DOT-RQ Details

- Xylene 100 lbs / 45.4 kg [13.946 gal / 52.791 L]
- Naphthalene 100 lbs / 45.4 kg

Additional information

DOT Classification

- Non-bulk packages (less than or equal to 119 gal) of combustible liquids are not regulated as hazardous materials in package sizes less than the product reportable quantity.
Reportable quantity 2004 lbs / 909.82 kg [256.24 gal / 969.96 L]. Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.

TDG Classification

- Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.43-2.45 (Class 9), 2.7 (Marine pollutant mark). Non-bulk packages of this product are not regulated as dangerous goods when transported by road or rail.

IMDG

- This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.

IATA

- This product is not regulated as a dangerous good when transported in sizes of ≤5 L or ≤5 kg, provided the packagings meet the general provisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.

- 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.

Section 15. Regulatory information

U.S. Federal regulations : **United States inventory (TSCA 8b)**: All components are listed or exempted.
Clean Water Act (CWA) 307: Naphthalene; Ethylbenzene; Toluene
Clean Water Act (CWA) 311: Xylene; Naphthalene; Ethylbenzene; Toluene

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs) : Listed

Clean Air Act Section 602 Class I Substances : Not listed

Clean Air Act Section 602 Class II Substances : Not listed

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

No products were found.

SARA 304 RQ : Not applicable.

SARA 311/312

Classification : FLAMMABLE LIQUIDS - Category 4
 ACUTE TOXICITY (oral) - Category 4
 CARCINOGENICITY - Category 2
 TOXIC TO REPRODUCTION (Unborn child) - Category 2
 ASPIRATION HAZARD - Category 1

Composition/information on ingredients

Name	Classification
2-Ethylhexyl nitrate	FLAMMABLE LIQUIDS - Category 4 ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 ASPIRATION HAZARD - Category 1
Solvent Naphtha (Petroleum), Heavy Arom. Xylene	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SKIN CORROSION/IRRITATION - Category 2
Naphthalene	FLAMMABLE SOLIDS - Category 2 ACUTE TOXICITY (oral) - Category 4 CARCINOGENICITY - Category 2
2-(2-Methoxyethoxy)ethanol	FLAMMABLE LIQUIDS - Category 4 TOXIC TO REPRODUCTION (Unborn child) - Category 2
1,2,4-Trimethylbenzene	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (inhalation) - Category 4 SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
Ethylbenzene	FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (inhalation) - Category 4 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A CARCINOGENICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (hearing organs) - Category 2 ASPIRATION HAZARD - Category 1

SARA 313

Section 15. Regulatory information


	Product name	CAS number
Form R - Reporting requirements	Xylene Naphthalene 2-(2-Methoxyethoxy)ethanol 1,2,4-Trimethylbenzene Ethylbenzene	1330-20-7 91-20-3 111-77-3 95-63-6 100-41-4
Supplier notification	Xylene Naphthalene 2-(2-Methoxyethoxy)ethanol 1,2,4-Trimethylbenzene Ethylbenzene	1330-20-7 91-20-3 111-77-3 95-63-6 100-41-4

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State regulations

- Massachusetts** : The following components are listed: Xylene; Naphthalene; 2-(2-Methoxyethoxy)ethanol; 1,2,4-Trimethylbenzene
- New York** : The following components are listed: Xylene; Naphthalene; Ethylbenzene
- New Jersey** : The following components are listed: Xylene; Naphthalene; 2-(2-Methoxyethoxy)ethanol; 1,2,4-Trimethylbenzene; Ethylbenzene
- Pennsylvania** : The following components are listed: Xylene; Naphthalene; 2-(2-Methoxyethoxy)ethanol; 1,2,4-Trimethylbenzene; Ethylbenzene

California Prop. 65

 **WARNING:** This product can expose you to chemicals including Naphthalene, Ethylbenzene and Cumene, which are known to the State of California to cause cancer, and Toluene, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Canadian lists

- Canada inventory (DSL NDSL)** : All components are listed or exempted.
- Canadian NPRI** : The following components are listed: Solvent Naphtha (Petroleum), Heavy Arom.; Xylene; Naphthalene; 2-(2-Methoxyethoxy)ethanol; 1,2,4-Trimethylbenzene
- CEPA Toxic substances** : The following components are listed: Naphthalene; 2-(2-Methoxyethoxy)ethanol

Section 16. Other information

Procedure used to derive the classification

Classification	Justification
FLAMMABLE LIQUIDS - Category 4 ACUTE TOXICITY (oral) - Category 4 CARCINOGENICITY - Category 2 TOXIC TO REPRODUCTION (Unborn child) - Category 2 ASPIRATION HAZARD - Category 1 AQUATIC HAZARD (ACUTE) - Category 2 AQUATIC HAZARD (LONG-TERM) - Category 2	On basis of test data Calculation method Calculation method Calculation method Expert judgment Calculation method Calculation method

History

- Date of issue mm/dd/yyyy** : 07/15/2019
- Date of previous issue** : Not applicable
- Version** : 1
- Prepared by** : KMK Regulatory Services Inc.

Section 16. Other information

Key to abbreviations

- : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.