

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Trade name : PWR4 Diesel AG

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Petrochemical
Fuel additives
Restrictions on use : No additional information available

1.3. Supplier

Supplier

Awsum Outcomes Inc
Bay 5, 409 38th Avenue NE
Calgary, Alberta, T2E 6R9
Canada
T 1 587-353-2000; Toll Free: 1-844-512-4093
info@awsum.global - www.awsum.global

1.4. Emergency telephone number

Emergency number 1-888-CANUTEC (226-8832) (North American use) and/or
1-613-996-6666 (International use)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Flammable liquids Category 3	H226	Flammable liquid and vapor
Acute toxicity (oral) Category 4	H302	Harmful if swallowed
Skin corrosion/irritation Category 2	H315	Causes skin irritation
Serious eye damage/eye irritation Category 2A	H319	Causes serious eye irritation
Carcinogenicity Category 1B	H350	May cause cancer
Reproductive toxicity Category 2	H361	Suspected of damaging fertility or the unborn child
Specific target organ toxicity – Single exposure, Category 3, Narcosis	H336	May cause drowsiness or dizziness
Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation	H335	May cause respiratory irritation
Specific target organ toxicity (repeated exposure) Category 2	H373	May cause damage to organs through prolonged or repeated exposure
Aspiration hazard Category 1	H304	May be fatal if swallowed and enters airways
Hazardous to the aquatic environment – Acute Hazard Category 1	H400	Very toxic to aquatic life
Hazardous to the aquatic environment – Chronic Hazard Category 1	H410	Very toxic to aquatic life with long lasting effects

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Danger

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Hazard statements (GHS US)	: H226 - Flammable liquid and vapor H302 - Harmful if swallowed H304 - May be fatal if swallowed and enters airways H315 - Causes skin irritation H319 - Causes serious eye irritation H335 - May cause respiratory irritation H336 - May cause drowsiness or dizziness H350 - May cause cancer H361 - Suspected of damaging fertility or the unborn child H373 - May cause damage to organs through prolonged or repeated exposure H400 - Very toxic to aquatic life H410 - Very toxic to aquatic life with long lasting effects
Precautionary statements (GHS US)	: P201 - Obtain special instructions before use. P202 - Do not handle until all safety precautions have been read and understood. P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P240 - Ground/Bond container and receiving equipment. P241 - Use explosion-proof electrical, ventilating, lighting equipment. P242 - Use only non-sparking tools. P243 - Take precautionary measures against static discharge. P260 - Do not breathe vapors. P261 - Avoid breathing vapors. P264 - Wash hands thoroughly after handling. P270 - Do not eat, drink or smoke when using this product. P271 - Use only outdoors or in a well-ventilated area. P273 - Avoid release to the environment. P280 - Wear protective gloves, protective clothing, eye protection, face protection. P301+P310 - If swallowed: Immediately call a POISON CENTER, a doctor. P330 - Rinse mouth. P331 - Do NOT induce vomiting. P302+P352 - If on skin: Wash with plenty of water. P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308+P313 - If exposed or concerned: Get medical advice/attention. P312 - Call a POISON CENTER, a doctor if you feel unwell. P314 - Get medical advice/attention if you feel unwell. P321 - Specific treatment (see supplemental first aid instruction on this label). P332+P313 - If skin irritation occurs: Get medical advice/attention. P337+P313 - If eye irritation persists: Get medical advice/attention. P362+P364 - Take off contaminated clothing and wash it before reuse. P370+P378 - In case of fire: Use water spray, foam, dry chemical powder, carbon dioxide (CO ₂) to extinguish. P391 - Collect spillage. P403+P233 - Store in a well-ventilated place. Keep container tightly closed. P235 - Keep cool. P405 - Store locked up. P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

Other hazards which do not result in classification	: When heated above 100 °C/212 °F 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 temperature.
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2.4. Unknown acute toxicity (GHS US)

No additional information available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

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

Name	Product identifier	% (w/w)	GHS US classification
solvent naphtha (petroleum), light arom.	CAS-No.: 64742-95-6	≥ 35 – ≤ 45	Flam. Liq. 3, H226 STOT SE 3, H336 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
2-ethylhexyl nitrate	CAS-No.: 27247-96-7	≥ 25 – ≤ 35	Flam. Liq. 4, H227 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation:dust,mist), H332 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
1,2,4-trimethylbenzene	CAS-No.: 95-63-6	≥ 10 – ≤ 15	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
mesitylene	CAS-No.: 108-67-8	≥ 5 – ≤ 10	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
(2-methoxymethylethoxy)propanol	CAS-No.: 34590-94-8	≥ 1 – ≤ 3	Flam. Liq. 4, H227 STOT SE 3, H335
2-ethylhexan-1-ol	CAS-No.: 104-76-7	≥ 1 – ≤ 3	Flam. Liq. 4, H227 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335

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Name	Product identifier	% (w/w)	GHS US classification
xylene	CAS-No.: 1330-20-7	$\geq 1 - \leq 3$	Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Chronic 3, H412
cumene	CAS-No.: 98-82-8	$\geq 1 - \leq 3$	Flam. Liq. 3, H226 Carc. 1B, H350 Asp. Tox. 1, H304 STOT SE 3, H335 Aquatic Chronic 2, H411
1,2,3-trimethylbenzene	CAS-No.: 526-73-8	$\geq 1 - \leq 2.7$	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H336 STOT SE 3, H335 Asp. Tox. 1, H304
cymene	CAS-No.: 25155-15-1	$\geq 0.5 - < 1$	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Repr. 2, H361 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
methyl-1H-benzotriazole	CAS-No.: 29385-43-1	$\geq 0.1 - \leq 0.3$	Acute Tox. 4 (Oral), H302 Repr. 2, H361 Aquatic Chronic 2, H411

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general	: If medical advice is needed, have product container or label at hand. Never give anything by mouth to an unconscious person.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Get medical advice/attention if you feel unwell. Give oxygen or artificial respiration if necessary.
First-aid measures after skin contact	: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: Immediately rinse with water for a prolonged period while holding the eyelids wide open. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: If swallowed, seek medical advice immediately and show this container or label. Rinse mouth out with water. Do NOT induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation	: Inhalation may cause irritation (cough, short breathing, difficulty in breathing). Depression of the central nervous system, headaches, dizziness, drowsiness, loss of coordination.
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Symptoms/effects after skin contact	: Causes skin irritation. Redness. Itching. Absorbed through the skin. Repeated exposure may cause skin dryness or cracking.
Symptoms/effects after eye contact	: Causes serious eye irritation. Redness. Lacrimation. Itching. Blurred vision.
Symptoms/effects after ingestion	: Harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea. Abdominal pain. May result in aspiration into the lungs, causing chemical pneumonia.
Most Important Symptoms/Effects	: reduced fetal weight, increase in fetal deaths, skeletal malformations.
Chronic symptoms	: May cause cancer. Suspected of damaging fertility. Suspected of damaging the unborn child. May cause damage to organs through prolonged or repeated exposure.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically. Symptoms may be delayed. Keep under medical supervision for at least 48 hours.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Alcohol-resistant foam. Carbon dioxide. Use extinguishing agent suitable for surrounding fire.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Fire hazard	: Flammable liquid and vapor. Vapors are heavier than air and may travel considerable distance to an ignition source and flash back to source of vapors. In case of fire and/or explosion do not breathe fumes.
Explosion hazard	: Vapors may form explosive mixture with air. Heating may cause a fire or explosion.
Reactivity in case of fire	: When heated above 100 °C/212 °F 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 temperature.
Hazardous decomposition products in case of fire	: Toxic fumes may be released. Carbon dioxide. Carbon monoxide. Nitrogen oxides.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	: Evacuate the danger area. Move containers from fire area if it can be done without personal risk. Exercise caution when fighting any chemical fire. Fight fire with normal precautions from a reasonable distance. Use water spray or fog for cooling exposed containers. Prevent fire-fighting water from entering environment. Eliminate all ignition sources if safe to do so.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Wear fire/flame resistant/retardant clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Avoid contact with skin and eyes. No flames, no sparks. Eliminate all sources of ignition. Use special care to avoid static electric charges.
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6.1.1. For non-emergency personnel

Protective equipment	: Wear recommended personal protective equipment.
Emergency procedures	: Evacuate unnecessary personnel. Ventilate spillage area. Avoid breathing vapors. Do not get in eyes, on skin, or on clothing. Do not touch or walk on the spilled product. No action shall be taken without appropriate training or involving any personal risk.

6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	: Evacuate unnecessary personnel. Avoid breathing vapours, mist. Use non-sparking tools.

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6.2. Environmental precautions

Avoid release to the environment. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

- For containment : Stop leak, if possible without risk. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Remove ignition sources.
- Methods for cleaning up : Caution : this product can cause the floor to be slippery. Move containers from spill area. Small quantities of liquid spill: take up in non-combustible absorbent material and shovel into container for disposal. For large spills, confine the spill in a dike and charge it with wet sand or earth for subsequent safe disposal. Place in a suitable container for disposal in accordance with the waste regulations (see Section 13). Clean contaminated surfaces with an excess of water. Prevent entry to sewers and public waters. Use non-sparking tools.
- Other information : Dispose of via an authorised person/ licensed waste disposal contractor or by other suitable waste treatment techniques.

6.4. Reference to other sections

For further information refer to section 13. For further information refer to section 8: "Exposure controls/personal protection".

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Provide adequate ventilation to minimize dust and/or vapor concentrations. Avoid breathing vapors. Wear personal protective equipment. Avoid contact with skin and eyes. Avoid contact during pregnancy and while nursing. Eliminate all ignition sources if safe to do so. Handling this product may result in electrostatic accumulation. Use proper grounding procedures. Take precautionary measures against static discharge. Use explosion-proof equipment. Use only non-sparking tools. Empty containers retain product residue and can be hazardous. Do not re-use container for any purpose.
- Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Always wash hands after handling the product. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store in a well-ventilated place. Keep cool. Store in a dry place. Handle empty containers with care because residual vapors are flammable. Keep only in the original container. Keep container closed when not in use. Containers which are opened should be properly resealed and kept upright to prevent leakage. Keep away from food, drink and animal feedingstuffs. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Refer to Section 10 on Incompatible Materials. Store in accordance with local, regional, national or international regulation. Do not store in unlabelled containers.
- Incompatible products : Strong oxidizing agents.
- Incompatible materials : Direct sunlight. Heat sources. Sources of ignition.
- Storage area : Store in dry, cool, well-ventilated area.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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No additional information available

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solvent naphtha (petroleum), light arom. (64742-95-6)	
No additional information available	
2-ethylhexyl nitrate (27247-96-7)	
No additional information available	
1,2,4-trimethylbenzene (95-63-6)	
USA - ACGIH - Occupational Exposure Limits	
Local name	1,2,4-Trimethyl benzene
ACGIH OEL TWA [ppm]	10 ppm
Remark (ACGIH)	TLV® Basis: CNS impair; hematologic eff. Notations: A4 (Not classifiable as a Human Carcinogen)
Regulatory reference	ACGIH 2023
mesitylene (108-67-8)	
USA - ACGIH - Occupational Exposure Limits	
Local name	1,3,5-Trimethyl benzene
ACGIH OEL TWA [ppm]	10 ppm
Remark (ACGIH)	TLV® Basis: CNS impair; hematologic eff
Regulatory reference	ACGIH 2023
(2-methoxymethylethoxy)propanol (34590-94-8)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Dipropylene glycol methyl ether (DPGME)
ACGIH OEL TWA [ppm]	50 ppm
Remark (ACGIH)	TLV® Basis: Liver & CNS eff
Regulatory reference	ACGIH 2023
USA - OSHA - Occupational Exposure Limits	
Local name	Dipropylene glycol methyl ether
OSHA PEL (TWA) [1]	600 mg/m ³
OSHA PEL (TWA) [2]	100 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
2-ethylhexan-1-ol (104-76-7)	
USA - ACGIH - Occupational Exposure Limits	
Local name	2-Ethyl-1-hexanol
ACGIH OEL TWA [ppm]	5 ppm
Remark (ACGIH)	TLV® Basis: URT irr & eye irr. Notations: A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans)
Regulatory reference	ACGIH 2023
xylene (1330-20-7)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Xylene, mixed isomers (Dimethylbenzene)

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xylene (1330-20-7)	
ACGIH OEL TWA [ppm]	20 ppm
Remark (ACGIH)	TLV® Basis: URT & eye irr; hematologic eff; ototoxicity (for mixtures containing p-xylene); CNS impair. Notations: OTO (for mixtures containing p-xylene); A4 (Not classifiable as a Human Carcinogen); BEI
Regulatory reference	ACGIH 2023
USA - ACGIH - Biological Exposure Indices	
Local name	XYLENES (Technical or commercial grade)
BEI (BLV)	1.5 g/g Kreatinin Parameter: Methylhippuric acids - Medium: urine - Sampling time: End of shift
Regulatory reference	ACGIH 2023
USA - OSHA - Occupational Exposure Limits	
Local name	Xylenes (o-, m-, p-isomers)
OSHA PEL (TWA) [1]	435 mg/m ³
OSHA PEL (TWA) [2]	100 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
1,2,3-trimethylbenzene (526-73-8)	
USA - ACGIH - Occupational Exposure Limits	
Local name	1,2,3-Trimethyl benzene
ACGIH OEL TWA [ppm]	10 ppm
Remark (ACGIH)	TLV® Basis: CNS impair; hematologic eff
Regulatory reference	ACGIH 2023
cumene (98-82-8)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Cumene
ACGIH OEL TWA [ppm]	5 ppm
Remark (ACGIH)	TLV® Basis: URT adenoma; neurological eff. Notations: A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans)
Regulatory reference	ACGIH 2023
USA - OSHA - Occupational Exposure Limits	
Local name	Cumene
OSHA PEL (TWA) [1]	245 mg/m ³
OSHA PEL (TWA) [2]	50 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1
cymene (25155-15-1)	
No additional information available	
methyl-1H-benzotriazole (29385-43-1)	
No additional information available	

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Monitoring methods

Monitoring methods

Refer to all applicable national, international and local regulations or provisions.

8.2. Appropriate engineering controls

- Appropriate engineering controls : Provide local exhaust or general room ventilation. Ensure exposure is below occupational exposure limits (where available). Handle in accordance with good industrial hygiene and safety procedures. Avoid all unnecessary exposure. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
- Environmental exposure controls : Avoid release to the environment. Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Wear recommended personal protective equipment. Personal protective equipment should be chosen according to the NIOSH standards and in discussion with the supplier of the protective equipment.

Hand protection:

Chemical resistant gloves (according to NIOSH standard). Please follow the instructions related to the permeability and the penetration time provided by the manufacturer. Selection of protective gloves should be made based on the type of task performed. Recommended materials. Nitrile rubber. Breakthrough time : 30 minutes. Thickness ≥ 0.4 mm

Eye protection:

Chemical goggles or safety glasses

Skin and body protection:

Wear suitable protective clothing. Skin protection appropriate to the conditions of use should be provided. Safety footwear

Respiratory protection:

Where excessive vapor, mist, or dust may result, use approved respiratory protection equipment. All respirators must conform to specifications for efficiency and performance indicated by OSHA Standard 29 CFR 1910.134 and NIOSH Standards

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Transparent.
Color	: amber
Odor	: Characteristic
Odor threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 46 °C (114.8 °F; Pensky-Martens closed cup)
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: 0.9212
Density	: 0.92 g/cm ³
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available

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Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: 6.1 mm ² /s (40 °C, 104 °F)
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Flammable liquid and vapor. Can form explosive mixtures with air. Heating may cause a fire or explosion.

10.2. Chemical stability

Unstable at temperatures greater than 100 °C/212 °F.

10.3. Possibility of hazardous reactions

Hazardous polymerization: Will not occur.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7). Protect from sunlight. Overheating. Extremely high or low temperatures. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Harmful if swallowed.
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

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ATE US (oral)	1428.571 mg/kg body weight
solvent naphtha (petroleum), light arom. (64742-95-6)	
LD50 oral rat	3492 mg/kg (female)
LD50 oral	6984 mg/kg (rat, male)
LD50 dermal rabbit	> 3160 mg/kg (OECD 402)
LC50 Inhalation - Rat (Vapours)	6193 mg/l/4h (OECD 403)
2-ethylhexyl nitrate (27247-96-7)	
LD50 oral rat	> 9600 mg/kg

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2-ethylhexyl nitrate (27247-96-7)	
LD50 dermal rabbit	> 4800 mg/kg
LC50 Inhalation - Rat	> 4.6 mg/l (1 h)
ATE US (oral)	500 mg/kg body weight
ATE US (dermal)	1100 mg/kg body weight
ATE US (dust, mist)	1.5 mg/l/4h
1,2,4-trimethylbenzene (95-63-6)	
LD50 oral rat	6000 mg/kg
LD50 dermal rabbit	> 3440 mg/kg (similar substance)
LC50 Inhalation - Rat (Vapours)	> 10200 mg/l/4h (similar substance)
ATE US (gases)	4500 ppmV/4h
ATE US (vapors)	11 mg/l/4h
ATE US (dust, mist)	1.5 mg/l/4h
mesitylene (108-67-8)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rat	> 3440 mg/kg (similar substance)
LC50 Inhalation - Rat (Vapours)	> 10.2 mg/l/4h (similar substance)
Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: May cause cancer.
xylene (1330-20-7)	
IARC group	3 - Not classifiable
cumene (98-82-8)	
IARC group	2B - Possibly carcinogenic to humans
National Toxicity Program (NTP) Status	Reasonably anticipated to be Human Carcinogen
Reproductive toxicity	: Suspected of damaging fertility or the unborn child.
STOT-single exposure	: May cause drowsiness or dizziness. May cause respiratory irritation.
STOT-repeated exposure	: May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	: May be fatal if swallowed and enters airways.
Viscosity, kinematic	: 6.1 mm ² /s (40 °C, 104 °F)
Symptoms/effects after inhalation	: Inhalation may cause irritation (cough, short breathing, difficulty in breathing). Depression of the central nervous system, headaches, dizziness, drowsiness, loss of coordination.
Symptoms/effects after skin contact	: Causes skin irritation. Redness. Itching. Absorbed through the skin. Repeated exposure may cause skin dryness or cracking.
Symptoms/effects after eye contact	: Causes serious eye irritation. Redness. Lacrimation. Itching. Blurred vision.
Symptoms/effects after ingestion	: Harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea. Abdominal pain. May result in aspiration into the lungs, causing chemical pneumonia.
Most Important Symptoms/Effects	: reduced fetal weight, increase in fetal deaths, skeletal malformations.
Chronic symptoms	: May cause cancer. Suspected of damaging fertility. Suspected of damaging the unborn child. May cause damage to organs through prolonged or repeated exposure.
Other information	: No experimental study on the product is available. The information given is based on our knowledge of the components and the classification of the product is determined by calculation.

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SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Very toxic to aquatic life with long lasting effects. Do not allow product to spread into the environment.

solvent naphtha (petroleum), light arom. (64742-95-6)	
LC50 - Fish [1]	8.2 mg/l (96 h, Pimephales promelas, similar substance)
EC50 - Crustacea [1]	4.5 mg/l (48 h, Daphnia magna, similar substance)
EC50 72h - Algae [1]	3.1 mg/l (72 h, Pseudokirchneriella subcapitata)
NOEC chronic fish	2.6 mg/l (14 d, Pimephales promelas, similar substance)
NOEC chronic crustacea	0.4 mg/l (21 d, Daphnia magna, similar substance)
NOEC chronic algae	0.5 mg/l (72 h, Pseudokirchneriella subcapitata)

2-ethylhexyl nitrate (27247-96-7)	
LC50 - Fish [1]	2 mg/l (96 h, Danio rerio)
EC50 - Crustacea [1]	0.83 mg/l (48 h, Daphnia magna)
EC50 72h - Algae [1]	> 2.53 mg/l (72 h, Pseudokirchneriella subcapitata)
NOEC chronic algae	2.22 mg/l (72 h, Pseudokirchneriella subcapitata)

1,2,4-trimethylbenzene (95-63-6)	
LC50 - Fish [1]	7.72 mg/l (96 h, Pimephales promelas)
EC50 - Crustacea [1]	3.6 mg/l (48 h, Daphnia magna)

mesitylene (108-67-8)	
LC50 - Fish [1]	12.52 mg/l (96 h, Carassius auratus)
EC50 - Crustacea [1]	6 mg/l (48 h, Daphnia magna)
EC50 72h - Algae [1]	53 mg/l (48 h, Desmodesmus subspicatus)
NOEC chronic crustacea	0.4 mg/l (21 d, Daphnia magna)
NOEC chronic algae	16 mg/l (48 h, Desmodesmus subspicatus)

12.2. Persistence and degradability

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Persistence and degradability	Biodegradability in water: no data available.

2-ethylhexyl nitrate (27247-96-7)	
Biodegradation	0 % (28 d, OECD 310)

mesitylene (108-67-8)	
Biodegradation	42 % (28 d)

12.3. Bioaccumulative potential

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Bioaccumulative potential	No data available concerning bioaccumulation.

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solvent naphtha (petroleum), light arom. (64742-95-6)	
BCF - Fish [1]	10 – 2500
2-ethylhexyl nitrate (27247-96-7)	
BCF - Fish [1]	1196
Partition coefficient n-octanol/water (Log Pow)	5.24
1,2,4-trimethylbenzene (95-63-6)	
BCF - Fish [1]	243
Partition coefficient n-octanol/water (Log Pow)	3.63
mesitylene (108-67-8)	
BCF - Fish [1]	3.42
Partition coefficient n-octanol/water (Log Pow)	161

12.4. Mobility in soil

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Ecology - soil	Adsorbs into the soil.
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12.5. Other adverse effects

Other adverse effects : No other effects known.

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations. Do not pierce or burn, even after use.
Additional information	: Flammable vapors may accumulate in the container.
Ecology - waste materials	: Avoid release to the environment.

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

14.1. UN number

DOT NA No	: UN1993
UN-No. (TDG)	: UN1993
UN-No. (IMDG)	: 1993
UN-No. (IATA)	: 1993

14.2. UN proper shipping name

Proper Shipping Name (DOT)	: Flammable liquids, n.o.s. (Solvent naphtha (petroleum), light arom. ; 2-ethylhexyl nitrate)
Proper Shipping Name (TDG)	: FLAMMABLE LIQUID, N.O.S. (Solvent naphtha (petroleum), light arom. ; 2-ethylhexyl nitrate)
Proper Shipping Name (IMDG)	: FLAMMABLE LIQUID, N.O.S. (Solvent naphtha (petroleum), light arom. ; 2-ethylhexyl nitrate)
Proper Shipping Name (IATA)	: Flammable liquid, n.o.s. (Solvent naphtha (petroleum), light arom. ; 2-ethylhexyl nitrate)

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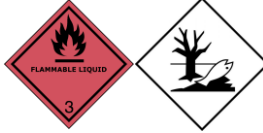
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14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT) : 3
Hazard labels (DOT) : 3



TDG

Transport hazard class(es) (TDG) : 3
Hazard labels (TDG) : 3



IMDG

Transport hazard class(es) (IMDG) : 3
Hazard labels (IMDG) : 3



IATA

Transport hazard class(es) (IATA) : 3
Hazard labels (IATA) : 3



14.4. Packing group

Packing group (DOT) : III
Packing group (TDG) : III
Packing group (IMDG) : III
Packing group (IATA) : III

14.5. Environmental hazards

Dangerous for the environment : Yes
Marine pollutant : Yes



Other information : No supplementary information available.

14.6. Special precautions for user

DOT

UN-No.(DOT) : UN1993

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DOT Special Provisions (49 CFR 172.102)	: B1 - If the material has a flash point at or above 38 C (100 F) and below 93 C (200 F), then the bulk packaging requirements of 173.241 of this subchapter are applicable. If the material has a flash point of less than 38 C (100 F), then the bulk packaging requirements of 173.242 of this subchapter are applicable. B52 - Notwithstanding the provisions of 173.24b of this subchapter, non-reclosing pressure relief devices are authorized on DOT 57 portable tanks. IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672). T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3) TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = $97 / 1 + a (tr - tf)$ Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling. TP29 - A portable tank having a minimum test pressure of 1.5 bar (150.0 kPa) may be used provided the calculated test pressure is 1.5 bar or less based on the MAWP of the hazardous materials, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.
DOT Packaging Exceptions (49 CFR 173.xxx)	: 150
DOT Packaging Non Bulk (49 CFR 173.xxx)	: 203
DOT Packaging Bulk (49 CFR 173.xxx)	: 242
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: 60 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: 220 L
DOT Vessel Stowage Location	: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.
TDG	
UN-No. (TDG)	: UN1993
TDG Special Provisions	: 16 - (1) The technical name of at least one of the most dangerous substances that predominantly contributes to the hazard or hazards posed by the dangerous goods must be shown, in parentheses, on the shipping document following the shipping name in accordance with clause 3.5(1)(c)(ii)(A) of Part 3 (Documentation). The technical name must also be shown, in parentheses, on a small means of containment or on a tag following the shipping name in accordance with subsections 4.11(2) and (3) of Part 4 (Dangerous Goods Safety Marks). (2) Despite subsection (1), the technical name for the following dangerous goods is not required to be shown on a shipping document or on a small means of containment when Canadian law for domestic transport or an international convention for international transport prohibits the disclosure of the technical name: (a) UN1544, ALKALOID SALTS, SOLID, N.O.S. or ALKALOIDS, SOLID, N.O.S.; (b) UN1851, MEDICINE, LIQUID, TOXIC, N.O.S.; (c) UN3140, ALKALOID SALTS, LIQUID, N.O.S. or ALKALOIDS, LIQUID, N.O.S.; (d) UN3248, MEDICINE, LIQUID, FLAMMABLE, TOXIC, N.O.S; or (e) UN3249, MEDICINE, SOLID, TOXIC, N.O.S. (3) Despite subsection (1), the technical name for the following dangerous goods is not required to be shown on a small means of containment: (a) UN2814, INFECTIOUS SUBSTANCE, AFFECTING HUMANS; or (b) UN2900, INFECTIOUS SUBSTANCE, AFFECTING ANIMALS, 150 - An approved ERAP is required for the dangerous goods referred to in paragraph 7.2(1)(f) of Part 7 (Emergency Response Assistance Plan). SOR-2019-101
Explosive Limit and Limited Quantity Index	: 5 L
Excepted quantities (TDG)	: E1
Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index	: 60 L
Emergency Response Guide (ERG) Number	: 128

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IMDG

Special provision (IMDG)	: 223, 274, 955
Limited quantities (IMDG)	: 5 L
Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	: LP01, P001
IBC packing instructions (IMDG)	: IBC03
Tank instructions (IMDG)	: T4
Tank special provisions (IMDG)	: TP1, TP29
EmS-No. (Fire)	: F-E - FIRE SCHEDULE Echo - NON-WATER-REACTIVE FLAMMABLE LIQUIDS
EmS-No. (Spillage)	: S-E - SPILLAGE SCHEDULE Echo - FLAMMABLE LIQUIDS, FLOATING ON WATER
Stowage category (IMDG)	: A

IATA

PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y344
PCA limited quantity max net quantity (IATA)	: 10L
PCA packing instructions (IATA)	: 355
PCA max net quantity (IATA)	: 60L
CAO packing instructions (IATA)	: 366
CAO max net quantity (IATA)	: 220L
Special provision (IATA)	: A3
ERG code (IATA)	: 3L

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

1,2,4-trimethylbenzene	CAS-No. 95-63-6	≥ 10 – ≤ 15%
xylene	CAS-No. 1330-20-7	≥ 1 – ≤ 3%
cumene	CAS-No. 98-82-8	≥ 1 – ≤ 3%

xylene (1330-20-7)

Listed on EPA Hazardous Air Pollutant (HAPS)

CERCLA RQ	100 lb
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cumene (98-82-8)

Listed on EPA Hazardous Air Pollutant (HAPS)

CERCLA RQ

5000 lb

15.2. International regulations

CANADA

solvent naphtha (petroleum), light arom. (64742-95-6)

Listed on the Canadian DSL (Domestic Substances List)

2-ethylhexyl nitrate (27247-96-7)

Listed on the Canadian DSL (Domestic Substances List)

1,2,4-trimethylbenzene (95-63-6)

Listed on the Canadian DSL (Domestic Substances List)

mesitylene (108-67-8)

Listed on the Canadian DSL (Domestic Substances List)

(2-methoxymethylethoxy)propanol (34590-94-8)

Listed on the Canadian DSL (Domestic Substances List)

2-ethylhexan-1-ol (104-76-7)

Listed on the Canadian DSL (Domestic Substances List)

xylene (1330-20-7)

Listed on the Canadian DSL (Domestic Substances List)

1,2,3-trimethylbenzene (526-73-8)

Listed on the Canadian DSL (Domestic Substances List)

cumene (98-82-8)

Listed on the Canadian DSL (Domestic Substances List)

cymene (25155-15-1)

Listed on the Canadian DSL (Domestic Substances List)

methyl-1H-benzotriazole (29385-43-1)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

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National regulations

solvent naphtha (petroleum), light arom. (64742-95-6)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

1,2,4-trimethylbenzene (95-63-6)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

mesitylene (108-67-8)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

(2-methoxymethylethoxy)propanol (34590-94-8)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

2-ethylhexan-1-ol (104-76-7)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

xylene (1330-20-7)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

cumene (98-82-8)

Listed on IARC (International Agency for Research on Cancer)
Listed as carcinogen on NTP (National Toxicology Program)
Listed on INSQ (Mexican National Inventory of Chemical Substances)

cymene (25155-15-1)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

methyl-1H-benzotriazole (29385-43-1)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. US State regulations



WARNING:

This product can expose you to Cumene, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

SECTION 16: Other information

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Data sources : Supplier's safety documents. ECHA (European Chemicals Agency).

Training advice : Training staff on good practice.

Full text of H-phrases

H226	Flammable liquid and vapor
H227	Combustible liquid
H302	Harmful if swallowed

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Full text of H-phrases	
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
H361	Suspected of damaging fertility or the unborn child
H373	May cause damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

Safety Data Sheet (SDS), USA

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.