

SAFETY DATA SHEET

Diesel Deep Clean Summer Fuel Treatment



Section 1. Identification

Product identifier:	Diesel Deep Clean Summer Fuel Treatment
Other means of identification:	Diesel Deep Clean Fuel Treatment
Product number:	11304, 11308
Recommended use:	Diesel fuel treatment
Supplier's details:	Lucas Oil Products, Inc. 3199 Harrison Way NW Corydon, IN 47112 USA Toll Free: (800) 342-2512 Tel: (951) 270-0154 Fax: (951) 270-1902 Website: www.LucasOil.com
Emergency telephone number:	ChemTel 24 hours/day 365 days/year 1-800-255-3924(USA, Canada, Puerto Rico, US Virgin Islands) +1-813-248-0585 (International)

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 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SKIN SENSITIZATION - Category 1 CARCINOGENICITY - Category 2 TOXIC TO REPRODUCTION (Unborn child) - Category 2

GHS label elements

Hazard pictograms:



Signal word:	Warning
Hazard statements:	Combustible liquid. Harmful if swallowed, in contact with skin or if inhaled. May cause an allergic skin reaction. Suspected of causing cancer. Suspected of damaging the unborn child.

Precautionary statements

Prevention:

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Keep away from flames and hot surfaces. No smoking. Use only outdoors or in a well-ventilated area. Avoid breathing vapor. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Contaminated work clothing must not be allowed out of the workplace.

Section 2. Hazards identification

Response: IF exposed or concerned: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell. Rinse mouth. Take off contaminated clothing and wash it before reuse. Wash contaminated clothing before reuse. IF ON SKIN: Call a POISON CENTER or doctor if you feel unwell. Wash with plenty of water. If skin irritation or rash occurs: Get medical advice or attention. In case of fire, use water spray (fog), foam, dry chemical or CO₂.

Storage: Store locked up. Store in a well-ventilated place. Keep cool.

Disposal: Dispose of contents and container in accordance with all local, regional, national and international regulations.

Additional hazards: 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.

Section 3. Composition/information on ingredients

Substance/mixture: Mixture

Ingredient name	CAS number	Conc. (% w/w)	US GHS Classification
2-ethylhexyl nitrate	27247-96-7	≥55 - ≤65	Flammable liquid – Cat. 4 Acute toxicity (oral) – Cat. 4 Acute toxicity (dermal) – Cat. 4 Acute toxicity (inhalation) – Cat. 4
Solvent naphtha (petroleum), heavy arom.	64742-94-5	≥5 - ≤7.3	Flammable liquid – Cat. 4 Specific Target Organ Toxicity (single exposure) – Cat. 3 (narcotic effects) Aspiration hazard – Cat. 1
2-ethylhexan-1-ol	104-76-7	≥3 - ≤5	Flammable liquid – Cat. 4 Acute toxicity (inhalation) – Cat. 4 Skin Irritation – Cat. 2 Eye Irritation – Cat. 2A Specific Target Organ Toxicity (single exposure) – Cat. 3 (respiratory tract irritation)
Solvent naphtha (petroleum), heavy arom.	64742-94-5	≥1 - ≤2.6	Flammable liquid – Cat. 4 Specific Target Organ Toxicity (single exposure) – Cat. 3 (narcotic effects) Aspiration hazard – Cat. 1
(Z)-(carboxymethyl)dimethyl-3-[(1-oxo-9-octadecenyl)amino]propylammonium hydroxide	25054-76-6	≥1 - ≤2.1	Skin Irritation – Cat. 2 Eye Irritation – Cat. 2A
naphthalene	91-20-3	≥0.5 - <1	Flammable liquid – Cat. 2 Acute toxicity (oral) – Cat. 4 Carcinogenicity – Cat. 2
methyl-1H-benzotriazole	29385-43-1	≥0.3 - ≤0.5	Acute toxicity (oral) – Cat. 4 Toxic to Reproduction – Cat. 2 (unborn child) Acute toxicity (oral) – Cat. 4

Section 3. Composition/information on ingredients

3,6,9-triazaundecamethylenediamine	112-57-2	≥0.1 - ≤0.3	Acute toxicity (oral) – Cat. 4 Acute toxicity (dermal) – Cat. 4 Skin Corrosion – Cat. 1B Serious eye damage – Cat. 1 Skin sensitization – Cat. 1
N-[3-(dimethylamino)propyl]oleamide	109-28-4	≥0.1 - ≤0.3	Skin Corrosion – Cat. 1B Serious eye damage – Cat. 1 Skin sensitization – Cat. 1A

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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 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 for at least 15 minutes, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Inhalation:

If inhaled, remove to fresh air. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. 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 necessary, call a poison center or physician. 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 need to be kept under medical surveillance for 48 hours. If not breathing, give artificial respiration. If breathing is difficult, administer oxygen.

Skin contact:

Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Get medical attention. If necessary, call a poison center or physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse. Continue to rinse for at least 15 minutes.

Ingestion:

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. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. 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.

Over-exposure signs/symptoms

Eye contact:

No specific data.

Inhalation:

Adverse symptoms may include the following: reduced fetal weight, increase in fetal deaths, skeletal malformations
Inhalation of vapors may cause a sharp decrease in blood pressure with resulting loss of consciousness.

Skin contact:

Adverse symptoms may include the following: irritation, redness, reduced fetal weight, increase in fetal deaths, skeletal malformations
Overexposure to organic nitrates by inhalation of vapor or skin contact may cause headache, dizziness, nausea, and decreased blood pressure.

Ingestion:

Adverse symptoms may include the following: 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. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures**Extinguishing media**

Suitable extinguishing media:	In case of fire, use water spray (fog), foam, dry chemical or CO ₂ .
Unsuitable extinguishing media:	Do not use water jet.

Specific hazards arising from the chemical:

Combustible liquid. Risk of explosion if heated under confinement. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard. 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. Fight fire from protected location or maximum possible distance.

Do not fight fire when it reaches the material. Withdraw from fire and let it burn.

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. Spray storage vessels with water to maintain temperature below 100°C/212°F.

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.

Section 6. Accidental release measures

Methods and materials for containment and cleaning up

Small spill:

Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large 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). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. 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 ingest. 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.

Do not heat this product.

Product transfer:

Prior to starting transfer pump, ensure all valves in the product discharge line are open and that the line is unobstructed. Immediately after starting the transfer pump, verify that the product is flowing. If product is not flowing, shut the pump off immediately. Operating the transfer pump in a dead-headed (blocked) condition without product flow can result in an explosion damaging equipment and causing personal injury. A pneumatic driven diaphragm pump or pumps of other designs equipped with high temperature (75°C) shut-off devices are recommended when pumps are provided at fixed locations.

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. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

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. Do not heat the product. Warehouses equipped with fire suppression systems are recommended. This product should not be stored in the same area with tanks containing flammable liquids. Fire suppression systems should be adequate to keep product cool in the event of a fire.

Section 8. Exposure controls/personal protection

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

Control parameters

Occupational exposure limits:

Ingredient name	Exposure limits
naphthalene	<p>ACGIH TLV (United States, 1/2022). Absorbed through skin. TWA: 10 ppm 8 hours. TWA: 52 mg/m³ 8 hours.</p> <p>OSHA PEL (United States, 5/2018). TWA: 10 ppm 8 hours. TWA: 50 mg/m³ 8 hours.</p>

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. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

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. Contaminated work clothing should not be allowed out of the workplace. 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:

Wear chemical resistant gloves. Nitrile gloves of minimum thickness 0.4 mm have an expected breakthrough time of 480 minutes or less when in frequent contact with the product. Due to variable exposure conditions the user must consider that the practical use of a chemical-protective glove in practice may be much shorter than the permeation time above. Manufacturer's directions for use, especially about the minimum thickness and the minimum breakthrough time, must be observed. This information does not replace suitability tests by the end user since glove protection varies depending on the conditions under which the product is used.

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	Not available.
Odor	Not available.
Odor threshold	Not available.
pH	Not available.
Melting point	Not available.
Boiling point	Not available.
Flash point	Closed cup: 68°C (154.4°F) [Pensky-Martens]
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Lower and upper explosive (flammable) limits	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	0.96
Solubility(ies)	Not available.
Partition coefficient: n-octanol/water	Not applicable.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Kinematic Viscosity	6.1cSt (40°C (104°F)) minimum
Explosive properties	Not available.
Oxidizing properties	Not available.

Section 10. Stability and reactivity

Reactivity:	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability:	Unstable at temperatures greater than 100°C/212°F.
Possibility of hazardous reactions:	Hazardous reactions or instability may occur under certain conditions of storage or use. Conditions may include the following: heating under confinement Reactions may include the following: risk of explosion
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.
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	Test	Result	Species	Dose	Exposure	Remarks
2-ethylhexyl nitrate	None available.	LC50 Inhalation Vapor	Rat	>4.6 mg/l	1 hours	-
Solvent naphtha (petroleum), heavy arom.	None available.	LD50 Dermal	Rabbit	>4800 mg/kg	-	-
	None available.	LD50 Oral	Rat	>9600 mg/kg	-	-
	403 Acute Inhalation Toxicity	LC50 Inhalation Dusts and mists	Rat	>4778 mg/m ³	4 hours	Based on data for a similar substance.
	403 Acute Inhalation Toxicity	LC50 Inhalation Vapor	Rat	>4688 mg/m ³	4 hours	-
	402 Acute Dermal Toxicity	LD50 Dermal	Rabbit	>2000 mg/kg	-	Based on data for a similar substance.
2-ethylhexanol	401 Acute Oral Toxicity	LD50 Oral	Rat	6318 mg/kg	-	-
	403 Acute Inhalation Toxicity	LC50 Inhalation Dusts and mists	Rat	1 to 5.3 mg/l	4 hours	-
	None available.	LC50 Inhalation Vapor	Rat	>0.89 mg/l	4 hours	-
	None available.	LD50 Dermal	Rat	1970 mg/kg	-	WOE does not support classification
Solvent naphtha (petroleum), heavy arom.	401 Acute Oral Toxicity	LD50 Oral	Rat	2047 mg/kg	-	-
	403 Acute Inhalation Toxicity	LC50 Inhalation Dusts and mists	Rat	>4778 mg/m ³	4 hours	Based on data for a similar substance.
	403 Acute Inhalation Toxicity	LC50 Inhalation Vapor	Rat	>4688 mg/m ³	4 hours	Based on data for a similar substance.
	402 Acute Dermal Toxicity	LD50 Dermal	Rabbit	>2000 mg/kg	-	Based on data for a similar substance.
	401 Acute Oral Toxicity	LD50 Oral	Rat	6318 mg/kg	-	Based on data for a similar substance.
Long-chain alkenyl amido alkyl ammonio acetate	402 Acute Dermal Toxicity	LD50 Dermal	Rabbit	>2000 mg/kg	-	-
	423 Acute Oral toxicity - Acute Toxic Class Method	LD50 Oral	Rat	>2000 mg/kg	-	-
naphthalene	403 Acute Inhalation Toxicity	LC50 Inhalation Vapor	Rat	>0.4 mg/l	4 hours	No effects at saturation.
	402 Acute Dermal Toxicity	LD50 Dermal	Rat	>16000 mg/kg	-	-
	401 Acute Oral Toxicity	LD50 Oral	Mouse	533 mg/kg	-	-
methyl-1H-benzotriazole	None available.	LC50 Inhalation Vapor	Rat	>1730 mg/m ³	1 hours	-
	402 Acute Dermal Toxicity	LD50 Dermal	Rabbit	>2000 mg/kg	-	Based on data for a similar substance.
	401 Acute Oral Toxicity	LD50 Oral	Rat	720 mg/kg	-	-
Tetraethylenepentamine	None available.	LD50 Dermal	Rabbit	1260 mg/kg	-	-

Section 11. Toxicological information

Amino long chain alkyl amide	None available.	LD50 Oral	Rat	1716 mg/kg	-	-
	402 Acute Dermal Toxicity	LD50 Dermal	Rat	>2000 mg/kg	-	-
	423 Acute Oral toxicity - Acute Toxic Class Method	LD50 Oral	Rat	>2000 mg/kg	-	-

Conclusion/Summary : Harmful if swallowed, in contact with skin or if inhaled.

Irritation/Corrosion

Product/ingredient name	Test	Species	Result	Remarks
2-ethylhexyl nitrate	405 Acute Eye Irritation/Corrosion	Rabbit	Eyes - Not an Irritant	-
	404 Acute Dermal Irritation/Corrosion	Rabbit	Skin - Not an Irritant	-
Solvent naphtha (petroleum), heavy arom.	405 Acute Eye Irritation/Corrosion	Rabbit	Eyes - Not an Irritant	-
	404 Acute Dermal Irritation/Corrosion	Rabbit	Skin - Not an Irritant	Based on data for a similar substance.
	404 Acute Dermal Irritation/Corrosion	Rabbit	Skin - Not an Irritant	-
2-ethylhexanol	405 Acute Eye Irritation/Corrosion	Rabbit	Eyes - Irritant	-
	404 Acute Dermal Irritation/Corrosion	Rabbit	Skin - Irritant	-
Solvent naphtha (petroleum), heavy arom.	405 Acute Eye Irritation/Corrosion	Rabbit	Eyes - Not an Irritant	Based on data for a similar substance.
	404 Acute Dermal Irritation/Corrosion	Rabbit	Skin - Not an Irritant	Based on data for a similar substance.
Long-chain alkenyl amido alkyl ammonio acetate	405 Acute Eye Irritation/Corrosion	Rabbit	Eyes - Irritant	-
	404 Acute Dermal Irritation/Corrosion	Rabbit	Skin - Irritant	-
naphthalene	None available.	Rabbit	Eyes - Not an Irritant	-
	None available.	Rabbit	Skin - Not an Irritant	-
methyl-1H-benzotriazole	405 Acute Eye Irritation/Corrosion	Rabbit	Eyes - Not an Irritant	-
	404 Acute Dermal Irritation/Corrosion	Rabbit	Skin - Not an Irritant	-
Tetraethylenepentamine	405 Acute Eye Irritation/Corrosion	Rabbit	Eyes - Visible necrosis	Based on data for a similar substance.
	404 Acute Dermal Irritation/Corrosion	Rabbit	Skin - Visible necrosis	Based on data for a similar substance.
Amino long chain alkyl amide	404 Acute Dermal Irritation/Corrosion	Rabbit	Skin - Visible necrosis	Based on data for a similar substance.

Conclusion/Summary

Skin : Causes mild skin irritation.

Eyes : Not available.

Respiratory : Not available.

Sensitization

Product/ingredient name	Test	Route of exposure	Species	Result	Remarks

Section 11. Toxicological information

2-ethylhexyl nitrate	406 Skin Sensitization	skin	Guinea pig	Not sensitizing	-
Solvent naphtha (petroleum), heavy arom.	406 Skin Sensitization	skin	Guinea pig	Not sensitizing	Based on data for a similar substance.
Solvent naphtha (petroleum), heavy arom.	406 Skin Sensitization	skin	Guinea pig	Not sensitizing	Based on data for a similar substance.
Long-chain alkenyl amido alkyl ammonio acetate	406 Skin Sensitization	skin	Guinea pig	Not sensitizing	-
naphthalene	406 Skin Sensitization	skin	Guinea pig	Not sensitizing	-
methyl-1H-benzotriazole	406 Skin Sensitization	skin	Guinea pig	Not sensitizing	-
Tetraethylenepentamine	None available.	skin	Guinea pig	Sensitizing	-
Amino long chain alkyl amide	406 Skin Sensitization	skin	Guinea pig	Sensitizing	-

Conclusion/Summary

Skin : May cause an allergic skin reaction.

Respiratory : Not available.

Mutagenicity

Product/ingredient name	Test	Experiment	Result	Remarks
2-ethylhexyl nitrate	471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative	-
	476 <i>In vitro</i> Mammalian Cell Gene Mutation Test	Experiment: In vitro Subject: Mammalian-Animal	Negative	-
	473 <i>In vitro</i> Mammalian Chromosomal Aberration Test	Experiment: In vitro Subject: Mammalian-Human	Negative	-
Solvent naphtha (petroleum), heavy arom.	471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative	-
	473 <i>In vitro</i> Mammalian Chromosomal Aberration Test	Experiment: In vitro Subject: Mammalian-Animal	Negative	Based on data for a similar substance.
	474 Mammalian Erythrocyte Micronucleus Test	Experiment: In vivo Subject: Mammalian-Animal	Negative	-
2-ethylhexanol	475 Mammalian Bone Marrow Chromosomal Aberration Test	Experiment: In vivo Subject: Mammalian-Animal	Negative	Based on data for a similar substance.
	471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative	-
	473 <i>In vitro</i> Mammalian Chromosomal Aberration Test	Experiment: In vitro Subject: Mammalian-Animal	Negative	-
Solvent naphtha (petroleum), heavy arom.	471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative	Based on data for a similar substance.
	473 <i>In vitro</i> Mammalian Chromosomal Aberration Test	Experiment: In vitro Subject: Mammalian-Animal	Negative	Based on data for a similar substance.
	475 Mammalian Bone Marrow Chromosomal Aberration Test	Experiment: In vivo Subject: Mammalian-Animal	Negative	Based on data for a similar substance.
	474 Mammalian Erythrocyte Micronucleus Test	Experiment: In vivo Subject: Mammalian-Animal	Negative	Based on data for a similar substance.
Long-chain alkenyl amido alkyl ammonio acetate	471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative	-
	476 <i>In vitro</i> Mammalian Cell Gene Mutation Test	Experiment: In vitro Subject: Mammalian-Animal	Negative	Based on data for a similar substance.
	473 <i>In vitro</i> Mammalian Chromosomal Aberration	Experiment: In vitro Subject: Mammalian-Human	Negative	Based on data for a similar substance.

Section 11. Toxicological information

naphthalene	Test 473 <i>In vitro</i> Mammalian Chromosomal Aberration Test	Experiment: <i>In vitro</i> Subject: Mammalian-Animal	Positive	WOE does not support classification
	471 Bacterial Reverse Mutation Test	Experiment: <i>In vitro</i> Subject: Bacteria	Negative	-
	479 Genetic Toxicology: <i>In vitro</i> Sister Chromatid Exchange Assay in Mammalian Cells	Experiment: <i>In vitro</i> Subject: Mammalian-Animal	Negative	-
	None available.	Experiment: <i>In vitro</i> Subject: Mammalian-Human	Negative	-
	486 Unscheduled DNA Synthesis (UDS) Test with Mammalian Liver Cells <i>in vivo</i>	Experiment: <i>In vivo</i> Subject: Mammalian-Animal	Negative	-
methyl-1H-benzotriazole	471 Bacterial Reverse Mutation Test	Experiment: <i>In vitro</i> Subject: Bacteria	Negative	-
	476 <i>In vitro</i> Mammalian Cell Gene Mutation Test	Experiment: <i>In vitro</i> Subject: Mammalian-Animal	Negative	Based on data for a similar substance.
Tetraethylenepentamine	471 Bacterial Reverse Mutation Test	Experiment: <i>In vitro</i> Subject: Bacteria	Positive	WOE does not support classification
	476 <i>In vitro</i> Mammalian Cell Gene Mutation Test	Experiment: <i>In vitro</i> Subject: Mammalian-Animal	Positive	Based on data for a similar substance.
	487 <i>In vitro</i> Micronucleus Test	Experiment: <i>In vitro</i> Subject: Mammalian-Human	Negative	-
	474 Mammalian Erythrocyte Micronucleus Test	Experiment: <i>In vivo</i> Subject: Mammalian-Animal	Negative	Based on data for a similar substance.
Amino long chain alkyl amide	471 Bacterial Reverse Mutation Test	Experiment: <i>In vitro</i> Subject: Bacteria	Negative	-
	476 <i>In vitro</i> Mammalian Cell Gene Mutation Test	Experiment: <i>In vitro</i> Subject: Mammalian-Animal	Negative	-

Conclusion/Summary : Not available.

Carcinogenicity

Product/ingredient name	Test	Species	Exposure	Result	Remarks
2-ethylhexanol	451 Carcinogenicity Studies	Mouse	18 months; 5 days per week	Negative - Oral - NOAEL	-
	451 Carcinogenicity Studies	Rat	24 months; 5 days per week	Negative - Oral - NOAEL	-
naphthalene	None available.	Rat	105 weeks; 5 days per week	Positive - Inhalation - NOAEL	-

Conclusion/Summary : North America and South America GHS classification: Suspected of causing cancer.
For other regional GHS classifications: Not classified.

Classification

Product/ingredient name	OSHA	IARC	NTP
naphthalene	-	2B	Reasonably anticipated to be a human carcinogen.

Reproductive toxicity

Section 11. Toxicological information

Product/ingredient name	Test	Route of exposure	Species	Maternal toxicity	Fertility	Development toxin	Remarks
2-ethylhexyl nitrate	421 Reproduction/ Developmental Toxicity Screening Test	Oral	Rat	Positive	Negative	Negative	-
Solvent naphtha (petroleum), heavy arom.	416 Two-Generation Reproduction Toxicity Study	Inhalation	Rat	Positive	Negative	Positive	Based on data for a similar substance. WOE does not support classification
2-ethylhexanol	416 Two-Generation Reproduction Toxicity Study	Oral	Rat	Negative	Negative	Negative	-
Solvent naphtha (petroleum), heavy arom.	416 Two-Generation Reproduction Toxicity Study	Inhalation	Rat	Positive	Negative	Positive	Based on data for a similar substance. WOE does not support classification
Amino long chain alkyl amide	421 Reproduction/ Developmental Toxicity Screening Test	Oral	Rat	Equivocal	Negative	Negative	-

Conclusion/Summary : North America and South America GHS classification: Suspected of damaging the unborn child.
For other regional GHS classifications: Not classified.

Teratogenicity

Product/ingredient name	Test	Species	Result	Remarks
2-ethylhexyl nitrate	414 Prenatal Developmental Toxicity Study	Rat	Negative - Inhalation	Based on data for a similar substance.
	None available.	Rat	Negative - Oral	Based on data for a similar substance.
	None available.	Rat	Negative - Oral	Based on data for a similar substance.
Solvent naphtha (petroleum), heavy arom.	414 Prenatal Developmental Toxicity Study	Rat	Negative - Oral	Based on data for a similar substance.
2-ethylhexanol	414 Prenatal Developmental Toxicity Study	Rat	Negative - Dermal	-
	414 Prenatal Developmental Toxicity Study	Rat	Negative - Inhalation	-
	414 Prenatal Developmental Toxicity Study	Mouse	Negative - Oral	-
Solvent naphtha (petroleum), heavy arom.	414 Prenatal Developmental Toxicity Study	Rat	Negative - Oral	Based on data for a similar substance.
Long-chain alkenyl amido alkyl ammonio acetate	414 Prenatal Developmental Toxicity Study	Rat	Negative - Oral	Based on data for a similar substance.
naphthalene	414 Prenatal Developmental Toxicity Study	Rat	Negative - Oral	-
methyl-1H-benzotriazole	414 Prenatal Developmental Toxicity Study	Rat	Positive - Oral	-
Tetraethylenepentamine	414 Prenatal Developmental Toxicity Study	Rabbit	Negative - Dermal	Based on data for a similar substance.
	414 Prenatal Developmental Toxicity Study	Rat	Negative - Oral	Based on data for a similar substance.
	414 Prenatal Developmental Toxicity Study	Rat	Negative - Oral	Based on data for a similar substance.

Section 11. Toxicological information

	Toxicity Study			similar substance.
--	----------------	--	--	--------------------

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Solvent naphtha (petroleum), heavy arom. 2-ethylhexanol	Category 3 Category 3	- -	Narcotic effects Respiratory tract irritation
Solvent naphtha (petroleum), heavy arom.	Category 3	-	Narcotic effects

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Name	Result
Solvent naphtha (petroleum), heavy arom.	ASPIRATION HAZARD - Category 1
Solvent naphtha (petroleum), heavy arom.	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure : Skin, Eyes, Ingestion, and Inhalation

Potential acute health effects

- Eye contact** : No known significant effects or critical hazards.
Inhalation : Harmful if inhaled.
Skin contact : Harmful in contact with skin. May cause an allergic skin reaction.
Ingestion : Harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : No specific data.
Inhalation : Adverse symptoms may include the following:
 Inhalation of vapors may cause a sharp decrease in blood pressure with resulting loss of consciousness.
 reduced fetal weight
 increase in fetal deaths
 skeletal malformations
Skin contact : Adverse symptoms may include the following:
 irritation
 redness
 reduced fetal weight
 increase in fetal deaths
 skeletal malformations
 Overexposure to organic nitrates by inhalation of vapor or skin contact may cause headache, dizziness, nausea, and decreased blood pressure.
Ingestion : Adverse symptoms may include the following:
 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 : Not available.

Potential delayed effects : Not available.

Long term exposure

Section 11. Toxicological information

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Product/ingredient name	Test	Species	Dose	Exposure	Result	Remarks
2-ethylhexyl nitrate	None available.	Rabbit	500 mg/kg	-	Sub-acute NOAEL Dermal	-
	413 Subchronic Inhalation Toxicity: 90-day Study	Rat	863 mg/m ³	90 days	Sub-chronic NOAEL Inhalation Vapor	Based on data for a similar substance.
	408 Repeated Dose 90-Day Oral Toxicity Study in Rodents	Rat	300 mg/kg	-	Sub-chronic NOAEL Oral	Based on data for a similar substance.
Solvent naphtha (petroleum), heavy arom.	452 Chronic Toxicity Studies	Rat	900 mg/m ³	12 months	Chronic NOAEL Inhalation Vapor	Based on data for a similar substance.
	413 Subchronic Inhalation Toxicity: 90-day Study	Rat	0.38 mg/l	13 weeks	Sub-chronic NOAEL Inhalation Vapor	-
	408 Repeated Dose 90-Day Oral Toxicity Study in Rodents	Rat	250 mg/kg	-	Sub-chronic NOAEL Oral	-
2-ethylhexanol	413 Subchronic Inhalation Toxicity: 90-day Study	Rat	640 mg/m ³	90 days	Sub-chronic NOAEL Inhalation Vapor	-
	408 Repeated Dose 90-Day Oral Toxicity Study in Rodents	Rat	125 mg/kg	-	Sub-chronic NOEL Oral	-
	408 Repeated Dose 90-Day Oral Toxicity Study in Rodents	Rat	300 mg/kg	-	Sub-chronic NOAEL Oral	Based on data for a similar substance.
Solvent naphtha (petroleum), heavy arom.	452 Chronic Toxicity Studies	Rat	900 mg/m ³	12 months	Chronic NOAEL Inhalation Vapor	Based on data for a similar substance.
	413 Subchronic Inhalation Toxicity: 90-day Study	Rat	0.38 mg/l	13 weeks	Sub-chronic NOAEL Inhalation Vapor	Based on data for a similar substance.
	408 Repeated Dose 90-Day Oral Toxicity Study in Rodents	Rat	300 mg/kg	-	Sub-chronic NOAEL Oral	Based on data for a similar substance.
Long-chain alkenyl amido alkyl ammonio acetate	408 Repeated Dose 90-Day Oral Toxicity Study in Rodents	Rat	300 mg/kg	-	Sub-chronic NOAEL Oral	Based on data for a similar substance.
	413 Subchronic Inhalation Toxicity: 90-day Study	Rat	0.011 mg/l	13 weeks	Sub-chronic LOAEL Inhalation Vapor	-
	411 Subchronic Dermal Toxicity: 90-day Study	Rat	1000 mg/kg	-	Sub-chronic NOAEL Dermal	-
naphthalene	408 Repeated Dose 90-Day Oral Toxicity Study in Rodents	Rat	200 mg/kg	-	Sub-chronic NOAEL Oral	-
	None available.	Rat	1 ppm	90 days	Sub-chronic NOAEL Inhalation Vapor	-
	407 Repeated Dose	Rat	150 mg/kg	-	Sub-acute	-

Section 11. Toxicological information

Tetraethylenepentamine	28-day Oral Toxicity Study in Rodents	Rat	50 mg/kg	-	NOAEL Oral	Based on data for a similar substance.
	408 Repeated Dose 90-Day Oral Toxicity Study in Rodents	Rabbit	50 mg/kg	-	Sub-chronic LOAEL Oral	
	410 Repeated Dose Dermal Toxicity: 21/28-day Study	Rabbit	200 mg/kg	-	Sub-acute NOAEL Dermal	
Amino long chain alkyl amide	410 Repeated Dose Dermal Toxicity: 21/28-day Study	Rat	270 mg/kg	-	Sub-chronic NOAEL Oral	Based on data for a similar substance.
	408 Repeated Dose 90-Day Oral Toxicity Study in Rodents	Rat	50 mg/kg	-	Sub-acute NOAEL Oral	
	407 Repeated Dose 28-day Oral Toxicity Study in Rodents					

- Conclusion/Summary** : Not available.
- General** : Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
- 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.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure	Remarks
2-ethylhexyl nitrate	Acute EC50 >2.53 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours	-
	Acute EC50 0.83 mg/l	Daphnia - Daphnia magna	48 hours	-
	Acute EL50 >1000 mg/l	Micro-organism	3 hours	-
	Acute LC50 2 mg/l	Fish - Danio rerio	96 hours	-
	Chronic EC10 2.22 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours	-
	Acute EL50 >1 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours	-
	Acute EL50 1.4 mg/l	Daphnia - Daphnia magna	48 hours	Based on data for a similar substance.
	Acute LL50 2 to 5 mg/l	Fish - Oncorhynchus mykiss	96 hours	-
Solvent naphtha (petroleum), heavy arom.	Chronic NOEL 1 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours	-
	Chronic NOEL 0.48 mg/l	Daphnia - Daphnia magna	21 days	Based on data for a similar substance.
2-ethylhexanol	Acute EC50 39 mg/l	Daphnia - Daphnia magna	48 hours	-
	Acute EL50 16.6 mg/l	Algae - Desmodesmus subspicatus	72 hours	-
	Acute LC50 17.1 mg/l	Fish - Leuciscus idus melanotus	96 hours	-
	Chronic EL10 5.3 mg/l	Algae - Desmodesmus	72 hours	-

Section 12. Ecological information

Solvent naphtha (petroleum), heavy arom.	Acute EL50 >1 mg/l	subspicatus Algae - Pseudokirchneriella subcapitata	72 hours	-
	Acute EL50 1.4 mg/l	Daphnia - Daphnia magna	48 hours	Based on data for a similar substance.
	Acute LL50 2 to 5 mg/l	Fish - Oncorhynchus mykiss	96 hours	-
	Chronic NOEL 1 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours	-
	Chronic NOEL 0.48 mg/l	Daphnia - Daphnia magna	21 days	Based on data for a similar substance.
Long-chain alkenyl amido alkyl ammonio acetate	Acute EC50 85.4 mg/l	Algae - Pseudokirchnerella subcapitata	72 hours	Based on data for a similar substance.
	Acute EC50 33.6 mg/l	Daphnia - Daphnia magna	48 hours	Based on data for a similar substance.
	Acute EL50 >100 mg/l	Micro-organism	3 hours	Based on data for a similar substance.
	Acute LC50 0.406 mg/l	Fish - Oncorhynchus mykiss	96 hours	Based on data for a similar substance.
	Chronic NOEC 42.9 mg/l	Algae - Pseudokirchnerella subcapitata	72 hours	Based on data for a similar substance.
naphthalene	Acute EC50 2.96 mg/l	Algae - Pseudokirchneriella subcapitata	96 hours	-
	Acute EC50 2.16 mg/l	Daphnia - Daphnia magna	48 hours	-
	Acute LC50 1.6 mg/l	Fish - Oncorhynchus mykiss	96 hours	-
	Chronic NOEC 0.59 mg/l	Daphnia - Daphnia pulex	125 days	-
	Chronic NOEC 0.12 mg/l	Fish - Oncorhynchus gorbuscha	40 days	-
methyl-1H-benzotriazole	Acute EL50 75 mg/l Fresh water	Algae - Pseudokirchneriella subcapitata	72 hours	Based on data for a similar substance.
	Acute EL50 8.58 mg/l Fresh water	Daphnia - Daphnia galeata	48 hours	Based on data for a similar substance.
	Acute EL50 1060 mg/l	Micro-organism	24 hours	Based on data for a similar substance.
	Acute LL50 180 mg/l Fresh water	Fish - Danio rerio	96 hours	Based on data for a similar substance.
	Chronic EL10 1.18 mg/l Fresh water	Algae - Desmodesmus subspicatus	72 hours	Based on data for a similar substance.
Tetraethylenepentamine	Chronic EL10 0.4 mg/l Fresh water	Daphnia - Daphnia galeata	21 days	Based on data for a similar substance.
	Acute EC50 6.8 mg/l	Algae - Selenastrum capricornutum	72 hours	-
	Acute EC50 1600 mg/l	Micro-organism	60 minutes	-
	Acute LC50 14.6 mg/l	Daphnia - Daphnia magna	48 hours	-
	Acute LC50 310 mg/l	Fish - Pimephales promelas	96 hours	-
Amino long chain alkyl amide	Chronic NOEC 0.5 mg/l	Algae - Selenastrum capricornutum	72 hours	-
	Acute EC50 >0.96	Algae - Pseudokirchneriella	72 hours	Based on data

Section 12. Ecological information

	mg/l	subcapitata		
	Acute EL50 0.28 mg/l	Daphnia - Daphnia magna	48 hours	for a similar substance. Based on data for a similar substance.
	Acute EL50 480 mg/l	Micro-organism	3 hours	-
	Acute LL50 0.22 mg/l	Fish - Danio rerio	96 hours	-
	Chronic EC10 0.32 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours	Based on data for a similar substance.
	Chronic EL10 0.07 mg/l	Daphnia - Daphnia magna	21 days	Based on data for a similar substance.

Conclusion/Summary : Very toxic to aquatic life with long lasting effects.

Persistence and degradability

Product/ingredient name	Test	Result	Remarks
2-ethylhexyl nitrate	OECD 310 Ready Biodegradability - CO ₂ in Sealed Vessels (Headspace Test)	0 % - Not readily - 28 days	-
Solvent naphtha (petroleum), heavy arom.	OECD 301F Ready Biodegradability - Manometric Respirometry Test	58.6 % - Inherent - 28 days	Based on data for a similar substance.
2-ethylhexanol	OECD 301C Ready Biodegradability - Modified MITI Test (I)	100 % - Readily - 14 days	-
Solvent naphtha (petroleum), heavy arom.	OECD 301F Ready Biodegradability - Manometric Respirometry Test	58.6 % - Inherent - 28 days	Based on data for a similar substance.
Long-chain alkenyl amido alkyl ammonio acetate naphthalene	- OECD 302C Inherent Biodegradability: Modified MITI Test (II)	77 % - Readily - 29 days 0 to 2 % - Not readily - 28 days	Based on data for a similar substance. -
methyl-1H-benzotriazole	OECD 301F Ready Biodegradability - Manometric Respirometry Test	4 % - Not readily - 28 days	-
Tetraethylenepentamine	OECD 301D Ready Biodegradability - Closed Bottle Test	0 % - Not readily - 28 days	-
Amino long chain alkyl amide	OECD 301B Ready	91 % - Readily - 28 days	-

Section 12. Ecological information

	Biodegradability - CO ₂ Evolution Test		
--	---	--	--

Bioaccumulative potential








Product/ingredient name	LogP _{ow}	BCF	Potential
2-ethylhexyl nitrate	5.24	1196	high
Solvent naphtha (petroleum), heavy arom.	2.8 to 6.5	99 to 5780	high
2-ethylhexanol	2.9	25.33	low
Solvent naphtha (petroleum), heavy arom.	2.8 to 6.5	99 to 5780	high
Long-chain alkenyl amido alkyl ammonio acetate	0.8	-	low
naphthalene	3.4	36.5 to 168	low
methyl-1H-benzotriazole	1.081	-	low
Amino long chain alkyl amide	1.842	-	low

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 at all times 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 emptied 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.

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. (2-ethylhexyl nitrate, Solvent naphtha) Marine pollutant	Environmentally hazardous substance, liquid, n.o.s. (2-ethylhexyl nitrate, Solvent naphtha). Marine pollutant	Environmentally hazardous substance, liquid, n.o.s. (2-ethylhexyl nitrate, Solvent naphtha). Marine pollutant	Environmentally hazardous substance, liquid, n.o.s. (2-ethylhexyl nitrate, Solvent naphtha)
Transport hazard class(es)	Combustible liquid. 	9  	9  	9  
Packing group	III	III	III	III
Environmental hazards	Yes.	Yes.	Yes.	Yes.

Additional information: The above transport information is provided to assist in the proper classification of this product and may not be suitable for all shipping conditions.

Section 15. Regulatory information

U.S. Federal regulations

United States - TSCA Section 5
TSCA 5(a)2 final significant new use rules
 None of the components are listed.

TSCA 5(a)2 proposed significant new use rules
 None of the components are listed.

TSCA 5(e) substance consent order
 Alkenyl succinimide P-08-0069

SARA 302/304

Composition/information on ingredients

Name	%	EHS	SARA 302 TPQ		SARA 304 RQ	
			(lbs)	(gallons)	(lbs)	(gallons)
nitric acid	≤0.01	Yes.	1000	85.7	1000	85.7

CERCLA : CERCLA: Hazardous substances.: naphthalene: 100 lbs. (45.4 kg); phenanthrene: 5000 lbs. (2270 kg); ethylbenzene: 1000 lbs. (454 kg); xylene: 100 lbs. (45.4 kg); nitric acid: 1000 lbs. (454 kg); benzene: 10 lbs. (4.54 kg);

SARA 313

	Product name	CAS number	%
Form R - Reporting requirements	naphthalene	91-20-3	≥0.5 - <1

State - California Prop. 65

⚠ WARNING: This product contains a chemical known to the State of California to cause cancer.
⚠ WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm. www.P65Warnings.ca.gov

Ingredient name	%	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
Naphthalene	≥0.5 - <1	Yes.	No.	Yes.	-
Carbon-black extracts	≤0.01	Yes.	No.	-	-
Ethylbenzene	≤0.001	Yes.	No.	Yes.	-
Benzene	≤0.001	Yes.	Yes.	Yes.	Yes.

Canadian regulations

Canada Significant New Activity Notice : None of the components are listed.

Canadian NPRI : The following components are listed: heavy aromatic solvent naphtha

CEPA Toxic substances : None of the components are listed.

International Inventory Status

Australia : All components are listed or exempted.
Canada : All components are listed or exempted.
China : At least one component is not listed.
Japan : At least one component is not listed.
Republic of Korea : At least one component is not listed.
New Zealand : All components are listed or exempted.
Philippines : All components are listed or exempted.

United States TSCA : All components are active or exempted.

Section 16. Other information

Date of issue//Date of revision : 4/4/2023 // 8/16/2024 (Rev. 1.2)

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
- WOE = Weight of Evidence

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.