Safety Data Sheet

HiTEC® 6431 Fuel Additive

SDS no. H6431

Section 1. Identification

Product identifier : HiTEC® 6431 Fuel Additive

Product use : Petrochemical industry: Gasoline Detergent Additive

Date of issue/Revisions : 28 November 2023

In case of emergency - Chemical

+1-703-527-3887 (International)
+65-3158-1349 (Asia Pacific)
+61-290372994 (Australia)
4001-204937 (China)
+81-345209637 (Japan)
00-308-13-2549 (South Korea)
+1-703-741-5979 (Spanish language)
+44-870-8200418 (UK)
1-800-424-9300 (US & Canada)

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Section 2. Hazards identification

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 3
SKIN CORROSION/IRRITATION - Category 3
CARCINOGENICITY - Category 1B
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects) - Category 3
ASPIRATION HAZARD - Category 1
SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 2
LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2

GHS label elements

Hazard pictograms :

Signal word : Danger

Hazard statements : Flammable liquid and vapour.
May be fatal if swallowed and enters airways.
Causes mild skin irritation.
May cause respiratory irritation.
May cause drowsiness or dizziness.
May cause cancer.
Toxic to aquatic life with long lasting effects.

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 heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating or lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Ground container and receiving equipment. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Avoid breathing vapour.

Response : Collect spillage. 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: Immediately call a POISON CENTER or doctor. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. If skin irritation occurs: Get medical advice or attention. In case of fire, use water spray (fog), foam, dry chemical or CO_2.

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

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

Other hazards which do not result in classification : None known.

Please note some GHS hazard classifications listed above may not be applicable in your country or region and are shown for informational purposes only.

Section 2. Hazards identification

For other GHS hazard classifications not listed above, the classification is not applicable in your region.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	CAS number	%	GHS Classification	Type
Solvent naphtha (petroleum), light arom.	64742-95-6	≥35 - ≤45	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (oral) - Category 5 SKIN CORROSION/IRRITATION - Category 3 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects) - Category 3 ASPIRATION HAZARD - Category 1 SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 2 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2	[1]
Alkaryl polyether	Proprietary	≥25 - ≤35	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 3 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3	[1]
Polyolefin alkyl phenol alkyl amine	Proprietary	≥15 - ≤25	SKIN CORROSION/IRRITATION - Category 2 SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 2	[1]
1,2,4-trimethylbenzene	95-63-6	≥10 - ≤15	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 ASPIRATION HAZARD - Category 1 SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 2 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2	[1] [2]
mesitylene	108-67-8	≥3 - ≤5	FLAMMABLE LIQUIDS - Category 3 SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE	[1] [2]

Section 3. Composition/information on ingredients

			(Respiratory tract irritation) - Category 3 ASPIRATION HAZARD - Category 1 SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 2 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2	
2-ethylhexan-1-ol	104-76-7	≥1 - ≤3	FLAMMABLE LIQUIDS - Category 4 ACUTE TOXICITY (oral) - Category 5 ACUTE TOXICITY (dermal) - Category 5 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 SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 3	[1] [2]
1,2,3-trimethylbenzene	526-73-8	≥1 - ≤1.5	FLAMMABLE LIQUIDS - Category 3 SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects) - Category 3 ASPIRATION HAZARD - Category 1 SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 2 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2	[1] [2]
xylene	1330-20-7	≥1 - ≤1.5	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (oral) - Category 5 ACUTE TOXICITY (dermal) - Category 4 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 SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2 ASPIRATION HAZARD - Category 1 SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 2	[1] [2]

Section 3. Composition/information on ingredients

			LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3	
cymene	25155-15-1	≥0.5 - <1	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (oral) - Category 5 ACUTE TOXICITY (inhalation) - Category 3 SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A REPRODUCTIVE TOXICITY - Category 2 ASPIRATION HAZARD - Category 1 SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 2 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2	[1]
cumene	98-82-8	≥0.3 - ≤0.5	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (oral) - Category 5 CARCINOGENICITY - Category 1B SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3 ASPIRATION HAZARD - Category 1 SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 2 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2	[1] [2]
(tetrapropenyl)succinic acid	27859-58-1	≥0.1 - ≤0.3	ACUTE TOXICITY (oral) - Category 5 SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1 REPRODUCTIVE TOXICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE (liver) - Category 2	[1]

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.

Please note some GHS hazard classifications listed above may not be applicable in your country or region and are shown for informational purposes only.

Type

[1] Substance classified with a physical, health or environmental hazard
[2] Substance with a workplace exposure limit

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 : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse. Continue to rinse for at least 15 minutes.

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 : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.

Skin contact : Causes mild skin irritation.

Ingestion : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness

Section 4. First aid measures

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : Adverse symptoms may include the following:
nausea or vomiting

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. Firefighting 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 : Flammable liquid and vapour. 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. 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 spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialised 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 spilt 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 material 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 the 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 spilt 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. 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 vapour 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. Take precautionary measures against electrostatic discharges. 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. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Section 7. Handling and storage

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 oxidising 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 unlabelled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
1,2,4-trimethylbenzene	**Safe Work Australia (Australia, 10/2022). [Trimethyl benzene]** TWA: 123 mg/m³ 8 hours. TWA: 25 ppm 8 hours. **Japan Society for Occupational Health (Japan, 9/2022).** OEL-M: 25 ppm 8 hours. OEL-M: 120 mg/m³ 8 hours. **Workplace Safety and Health Act (Singapore, 2/2006). [Trimethyl benzene]** PEL (long term): 25 ppm 8 hours. PEL (long term): 123 mg/m³ 8 hours. **Ministry of Employment and Labor (Republic of Korea, 1/2020). [Trimethyl benzene (mixed isomers)]** TWA: 25 ppm 8 hours.
mesitylene	**Safe Work Australia (Australia, 10/2022). [Trimethyl benzene]** TWA: 123 mg/m³ 8 hours. TWA: 25 ppm 8 hours. **Japan Society for Occupational Health (Japan, 9/2022).** OEL-M: 25 ppm 8 hours. OEL-M: 120 mg/m³ 8 hours. **Workplace Safety and Health Act (Singapore, 2/2006). [Trimethyl benzene]** PEL (long term): 25 ppm 8 hours. PEL (long term): 123 mg/m³ 8 hours. **Ministry of Employment and Labor (Republic of Korea, 1/2020). [Trimethyl benzene (mixed isomers)]** TWA: 25 ppm 8 hours.
2-ethylhexan-1-ol	**Japan Society for Occupational Health (Japan, 9/2022).** OEL-M: 5.3 mg/m³ 8 hours. OEL-M: 1 ppm 8 hours.
1,2,3-trimethylbenzene	**Safe Work Australia (Australia, 10/2022). [Trimethyl benzene]** TWA: 123 mg/m³ 8 hours. TWA: 25 ppm 8 hours. **Japan Society for Occupational Health**

Section 8. Exposure controls/personal protection

	(Japan, 9/2022). OEL-M: 25 ppm 8 hours. OEL-M: 120 mg/m³ 8 hours. **Workplace Safety and Health Act (Singapore, 2/2006). [Trimethyl benzene]** PEL (long term): 25 ppm 8 hours. PEL (long term): 123 mg/m³ 8 hours. **Ministry of Employment and Labor (Republic of Korea, 1/2020). [Trimethyl benzene (mixed isomers)]** TWA: 25 ppm 8 hours.
xylene	**GBZ 2.1 (China, 11/2022). [Xylene (all isomers)]** PC-TWA: 50 mg/m³ 8 hours. PC-STEL: 100 mg/m³ 15 minutes. **Safe Work Australia (Australia, 10/2022). [Xylene (o-, m-, p- isomers)]** STEL: 655 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 350 mg/m³ 8 hours. TWA: 80 ppm 8 hours. **Industrial Safety and Health Act (Japan, 6/2020). [xylene]** TWA: 50 ppm 8 hours. **Japan Society for Occupational Health (Japan, 9/2022).** OEL-M: 50 ppm 8 hours. OEL-M: 217 mg/m³ 8 hours. **Workplace Safety and Health Act (Singapore, 2/2006). [Xylene]** PEL (long term): 100 ppm 8 hours. PEL (long term): 434 mg/m³ 8 hours. PEL (short term): 651 mg/m³ 15 minutes. PEL (short term): 150 ppm 15 minutes. **Ministry of Employment and Labor (Republic of Korea, 1/2020). [Xylene (all isomers)]** STEL: 150 ppm 15 minutes. TWA: 100 ppm 8 hours.
cumene	**Safe Work Australia (Australia, 10/2022). Absorbed through skin.** TWA: 125 mg/m³ 8 hours. TWA: 25 ppm 8 hours. STEL: 75 ppm 15 minutes. STEL: 375 mg/m³ 15 minutes. **Japan Society for Occupational Health (Japan, 9/2022). Absorbed through skin.** OEL-M: 50 mg/m³ 8 hours. OEL-M: 10 ppm 8 hours. **Workplace Safety and Health Act (Singapore, 2/2006).** PEL (long term): 50 ppm 8 hours. PEL (long term): 246 mg/m³ 8 hours. **Ministry of Employment and Labor (Republic of Korea, 1/2020). Absorbed through skin.** TWA: 50 ppm 8 hours.

Section 8. Exposure controls/personal protection

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, vapour 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. 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 : Hand Protection: Wear chemical resistant gloves. Nitrile gloves of minimum thickness 0.4 mm have an expected breakthrough time of 30 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. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

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

Physical state : Liquid.

Colour : Yellow. [Light]

Odour : Amine-like.

Odour threshold : Not available.

Section 9. Physical and chemical properties

pH : Not available.

Melting point : Not available.

Boiling point : >155°C (>311°F)

Flash point : Closed cup: 44°C (111.2°F) [Pensky-Martens. Minimum]

Evaporation rate : Not available.

Flammability (solid, gas) : Not available.

Lower and upper explosive (flammable) limits : Not available.

Vapour pressure : Not available.

Relative vapour density : Not available.

Vapour density : Not available.

Density : 0.921 g/cm³

Relative density : 0.9229

Solubility(ies) :

Media	Result
cold water	Not soluble

Partition coefficient: n-octanol/water : Not applicable.

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Viscosity : Kinematic (40°C): 15 mm^2/s (15 cSt) Minimum

Explosive properties : Not available.

Oxidising properties : Not available.

Particle characteristics

Median particle size : Not applicable.

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

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 pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

Section 10. Stability and reactivity

Incompatible materials : Reactive or incompatible with the following materials: oxidising 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
Solvent naphtha (petroleum), light arom.	403 Acute Inhalation Toxicity	LC50 Inhalation Vapour	Rat	>6193 mg/m³	4 hours	-
	402 Acute Dermal Toxicity	LD50 Dermal	Rabbit	>3160 mg/kg	-	-
	None available.	LD50 Oral	Rat - Female	3492 mg/kg	-	-
	None available.	LD50 Oral	Rat - Male	6984 mg/kg	-	-
Alkaryl polyether	None available.	LD50 Dermal	Rabbit	>3000 mg/kg	-	Based on data for a similar substance.
	423 Acute Oral toxicity - Acute Toxic Class Method	LD50 Oral	Rat	>2000 mg/kg	-	-
1,2,4-trimethylbenzene	None available.	LC50 Inhalation Vapour	Rat	>10200 mg/m³	4 hours	Based on data for a similar substance.
	None available.	LD50 Dermal	Rat	>3440 mg/kg	-	Based on data for a similar substance.
	None available.	LD50 Oral	Rat	6000 mg/kg	-	-
mesitylene	None available.	LC50 Inhalation Vapour	Rat	>10.2 mg/l	4 hours	Based on data for a similar substance.
	None available.	LD50 Dermal	Rat	>3440 mg/kg	-	Based on data for a similar substance.
	None available.	LD50 Oral	Rat	>5000 mg/kg	-	-
2-ethylhexan-1-ol	403 Acute Inhalation Toxicity	LC50 Inhalation Dusts and mists	Rat	1 to 5.3 mg/l	4 hours	-
	None available.	LC50 Inhalation Vapour	Rat	>0.89 mg/l	4 hours	-
	None available.	LD50 Dermal	Rat	1970 mg/kg	-	WOE does not support classification
	401 Acute Oral Toxicity	LD50 Oral	Rat	2047 mg/kg	-	-
1,2,3-trimethylbenzene	None available.	LC50 Inhalation Vapour	Rat	24 mg/l	4 hours	-
	None available.	LD50 Oral	Rat	5000 mg/kg	-	-

Section 11. Toxicological information

xylene	403 Acute Inhalation Toxicity	LC50 Inhalation Vapour	Rat	29 mg/l	4 hours	-
	None available.	LD50 Dermal	Rabbit	12126 mg/kg	-	Based on data for a similar substance.
	None available.	LD50 Oral	Rat - Male	3523 mg/kg	-	-
cymene	None available.	LD50 Dermal	Rabbit	>5000 mg/kg	-	Based on data for a similar substance.
	None available.	LD50 Oral	Rat	4750 mg/kg	-	Based on data for a similar substance.
cumene	None available.	LD50 Dermal	Rabbit	>10000 mg/kg	-	-
	None available.	LD50 Oral	Rat	2260 mg/kg	-	-
(tetrapropenyl)succinic acid	401 Acute Oral Toxicity	LD50 Oral	Rat - Female	2100 mg/kg	-	-

Conclusion/Summary : Based on available data, the classification criteria are not met.

Irritation/Corrosion

Product/ingredient name	Test	Species	Result	Remarks
Solvent naphtha (petroleum), light arom.	405 Acute Eye Irritation/Corrosion	Rabbit	Eyes - Not irritant	-
	None available.	Rabbit	Skin - Mild irritant	-
Alkaryl polyether	405 Acute Eye Irritation/Corrosion	Rabbit	Eyes - Not irritant	Based on data for a similar substance.
	404 Acute Dermal Irritation/Corrosion	Rabbit	Skin - Not irritant	Based on data for a similar substance.
Polyolefin alkyl phenol alkyl amine	405 Acute Eye Irritation/Corrosion	Rabbit	Eyes - Not irritant	-
	404 Acute Dermal Irritation/Corrosion	Rabbit	Skin - Irritant	Not H315 at<50% On basis of test data
1,2,4-trimethylbenzene	None available.	Rabbit	Skin - Irritant	Based on data for a similar substance.
mesitylene	405 Acute Eye Irritation/Corrosion	Rabbit	Eyes - Irritant	Based on data for a similar substance.
	None available.	Rabbit	Skin - Irritant	-
2-ethylhexan-1-ol	405 Acute Eye Irritation/Corrosion	Rabbit	Eyes - Irritant	-
	404 Acute Dermal Irritation/Corrosion	Rabbit	Skin - Irritant	-
xylene	None available.	Rabbit	Eyes - Irritant	-
	None available.	Rabbit	Skin - Irritant	-
cymene	405 Acute Eye Irritation/Corrosion	Rabbit	Eyes - Irritant	Based on data for a similar substance.
	None available.	Rabbit	Skin - Irritant	Based on data for a similar substance.
cumene	405 Acute Eye Irritation/Corrosion	Rabbit	Eyes - Not irritant	-
	404 Acute Dermal Irritation/Corrosion	Rabbit	Skin - Not irritant	-
(tetrapropenyl)succinic acid	None available.	Rabbit	Eyes - Severe irritant	-
	404 Acute Dermal Irritation/Corrosion	Rabbit	Skin - Irritant	-

Section 11. Toxicological information

Skin : Causes mild skin irritation. Based on test data for this or similar products.

Eyes : Based on available data, the classification criteria are not met.

Respiratory : May cause respiratory irritation.

Sensitisation

Product/ingredient name	Test	Route of exposure	Species	Result	Remarks
Solvent naphtha (petroleum), light arom.	406 Skin Sensitization	skin	Guinea pig	Not sensitizing	-
Alkaryl polyether	406 Skin Sensitization	skin	Guinea pig	Not sensitizing	Based on data for a similar substance.
Polyolefin alkyl phenol alkyl amine	406 Skin Sensitization	skin	Guinea pig	Not sensitizing	-
1,2,4-trimethylbenzene	406 Skin Sensitization	skin	Guinea pig	Not sensitizing	Based on data for a similar substance.
mesitylene	406 Skin Sensitization	skin	Guinea pig	Not sensitizing	Based on data for a similar substance.
xylene	429 Skin Sensitisation: Local Lymph Node Assay	skin	Mouse	Not sensitizing	-
cymene	None available.	skin	Guinea pig	Not sensitizing	Based on data for a similar substance.
cumene	406 Skin Sensitization	skin	Guinea pig	Not sensitizing	-
(tetrapropenyl)succinic acid	406 Skin Sensitization	skin	Guinea pig	Not sensitizing	-

Conclusion/Summary

Skin : Based on available data, the classification criteria are not met.

Respiratory : Based on available data, the classification criteria are not met.

Mutagenicity

Product/ingredient name	Test	Experiment	Result	Remarks
Solvent naphtha (petroleum), light arom.	471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative	-
	476 In vitro Mammalian Cell Gene Mutation Test	Experiment: In vitro Subject: Mammalian-Animal	Negative	-
Alkaryl polyether	471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative	Based on data for a similar substance.
	473 In vitro Mammalian Chromosomal Aberration Test	Experiment: In vitro Subject: Mammalian-Animal	Negative	Based on data for a similar substance.
1,2,4-trimethylbenzene	471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative	-
	476 In vitro Mammalian Cell Gene Mutation Test	Experiment: In vitro Subject: Mammalian-Animal	Negative	Based on data for a similar substance.
mesitylene	471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative	-
	476 In vitro Mammalian Cell Gene Mutation Test	Experiment: In vitro Subject: Mammalian-Animal	Negative	Based on data for a similar substance.
2-ethylhexan-1-ol	471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative	-
	473 In vitro Mammalian Chromosomal Aberration	Experiment: In vitro Subject: Mammalian-Animal	Negative	-

Section 11. Toxicological information

	Test			
1,2,3-trimethylbenzene	None available.	Experiment: In vitro Subject: Bacteria	Positive	WOE does not support classification
	None available.	Experiment: In vitro Subject: Bacteria	Negative	-
	None available.	Experiment: In vitro Subject: Mammalian-Animal	Equivocal	-
	None available.	Experiment: In vivo Subject: Mammalian-Animal	Positive	WOE does not support classification
	None available.	Experiment: In vivo Subject: Mammalian-Animal	Negative	-
xylene	471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative	-
	None available.	Experiment: In vitro Subject: Mammalian-Animal	Negative	-
cymene	471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative	Based on data for a similar substance.
	476 In vitro Mammalian Cell Gene Mutation Test	Experiment: In vitro Subject: Mammalian-Animal	Negative	Based on data for a similar substance.
	473 In vitro Mammalian Chromosomal Aberration Test	Experiment: In vitro Subject: Mammalian-Human	Negative	Based on data for a similar substance.
cumene	471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative	-
	None available.	Experiment: In vitro Subject: Mammalian-Animal	Negative	-
	474 Mammalian Erythrocyte Micronucleus Test	Experiment: In vivo Subject: Mammalian-Animal	Equivocal	-
(tetrapropenyl)succinic acid	471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria	Negative	-
	490 *In vitro* Mammalian Cell Gene Mutation Tests Using the Thymidine Kinase Gene	Experiment: In vitro Subject: Mammalian-Animal	Negative	-

Conclusion/Summary : Based on available data, the classification criteria are not met.

Carcinogenicity

Product/ingredient name	Test	Species	Exposure	Result	Remarks
Solvent naphtha (petroleum), light arom.	451 Carcinogenicity Studies	Rat	113 months; 5 days per week	Negative - Inhalation - NOAEL	-
2-ethylhexan-1-ol	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	-
xylene	None available.	Rat	103 weeks; 5 days per week	Negative - Oral - NOAEL	-
cumene	451 Carcinogenicity Studies	Rat	105 weeks; 6 hours	Positive - Inhalation -	-

Section 11. Toxicological information

			per day	TC	

Conclusion/Summary : Suspected of causing cancer.

Reproductive toxicity

Product/ingredient name	Test	Route of exposure	Species	Maternal toxicity	Fertility	Developmental toxin	Remarks
Solvent naphtha (petroleum), light arom.	None available.	Inhalation	Rat	Negative	Negative	Negative	-
Polyolefin alkyl phenol alkyl amine	421 Reproduction/ Developmental Toxicity Screening Test	Oral	Rat	Positive	Negative	Negative	-
1,2,4-trimethylbenzene	416 Two-Generation Reproduction Toxicity Study	Inhalation	Rat	Positive	Negative	Negative	Based on data for a similar substance.
mesitylene	416 Two-Generation Reproduction Toxicity Study	Inhalation	Rat	Positive	Negative	Negative	Based on data for a similar substance.
2-ethylhexan-1-ol	416 Two-Generation Reproduction Toxicity Study	Oral	Rat	Negative	Negative	Negative	-
1,2,3-trimethylbenzene	None available.	Inhalation	Rat	-	Equivocal	Equivocal	-
xylene	None available.	Inhalation	Rat - Male	Positive	Equivocal	Negative	WOE does not support classification
cymene	422 Combined Repeated Dose Toxicity Study with the Reproduction/ Developmental Toxicity Screening Test	Oral	Rat	Positive	Positive	Positive	Based on data for a similar substance.
cumene	413 Subchronic Inhalation Toxicity: 90-day Study	Inhalation	Rat	Positive	Negative	Negative	-
(tetrapropenyl)succinic acid	421 Reproduction/ Developmental Toxicity Screening Test	Oral	Rat	Negative	Negative	Negative	-

Conclusion/Summary : Based on available data, the classification criteria are not met.

Teratogenicity

Product/ingredient name	Test	Species	Result	Remarks
Solvent naphtha (petroleum), light arom.	None available.	Rabbit	Negative - Inhalation	Based on data for a similar substance.
	None available.	Rat	Negative - Inhalation	Based on data for a similar substance.
1,2,4-trimethylbenzene	414 Prenatal Developmental Toxicity Study	Rat	Negative - Inhalation	-
mesitylene	414 Prenatal Developmental Toxicity Study	Rat	Negative - Inhalation	-

Section 11. Toxicological information

2-ethylhexan-1-ol	414 Prenatal Developmental Toxicity Study	Rat	Negative - Dermal	-
	414 Prenatal Developmental Toxicity Study	Rat	Negative - Inhalation	-
	414 Prenatal Developmental Toxicity Study	Mouse	Negative - Oral	-
1,2,3-trimethylbenzene	None available.	Rat	Equivocal - Inhalation	Based on data for a similar substance.
xylene	414 Prenatal Developmental Toxicity Study	Rat	Negative - Inhalation	-
cumene	414 Prenatal Developmental Toxicity Study	Rabbit	Negative - Inhalation	-
	414 Prenatal Developmental Toxicity Study	Rat	Negative - Inhalation	-
(tetrapropenyl)succinic acid	414 Prenatal Developmental Toxicity Study	Rat	Positive - Oral	-

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Solvent naphtha (petroleum), light arom.	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
1,2,4-trimethylbenzene	Category 3	-	Respiratory tract irritation
mesitylene	Category 3	-	Respiratory tract irritation
2-ethylhexan-1-ol	Category 3	-	Respiratory tract irritation
1,2,3-trimethylbenzene	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
xylene	Category 3	-	Respiratory tract irritation
cumene	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
xylene	Category 2	-	-
(tetrapropenyl)succinic acid	Category 2	-	liver

Aspiration hazard

Name	Result
Solvent naphtha (petroleum), light arom.	ASPIRATION HAZARD - Category 1
1,2,4-trimethylbenzene	ASPIRATION HAZARD - Category 1
mesitylene	ASPIRATION HAZARD - Category 1
1,2,3-trimethylbenzene	ASPIRATION HAZARD - Category 1
xylene	ASPIRATION HAZARD - Category 1
cymene	ASPIRATION HAZARD - Category 1
cumene	ASPIRATION HAZARD - Category 1

Section 11. Toxicological information

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

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.

Skin contact : Causes mild skin irritation.

Ingestion : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
pain or irritation
watering
redness

Inhalation : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness

Skin contact : Adverse symptoms may include the following:
irritation
redness

Ingestion : Adverse symptoms may include the following:
nausea or vomiting

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Product/ingredient name	Test	Species	Dose	Exposure	Result	Remarks
Solvent naphtha (petroleum), light arom.	None available.	Rat	353 ppm	13 weeks; 6 hours per day	Sub-chronic LOAEL Inhalation Vapour	-
	408 Repeated Dose 90-Day Oral Toxicity Study in Rodents	Rat	600 mg/kg	-	Sub-chronic NOAEL Oral	Based on data for a similar substance.

Section 11. Toxicological information

	452 Chronic Toxicity Studies	Rat	900 mg/m³	12 months; 6 hours per day	Chronic NOAEL Inhalation Vapour	-
Polyolefin alkyl phenol alkyl amine	421 Reproduction/ Developmental Toxicity Screening Test	Rat	100 mg/kg	-	Sub-acute NOAEL Oral	-
1,2,4-trimethylbenzene	408 Repeated Dose 90-Day Oral Toxicity Study in Rodents	Rat	600 mg/kg	-	Sub-chronic NOAEL Oral	Based on data for a similar substance.
	452 Chronic Toxicity Studies	Rat	1800 mg/ m³	12 months	Chronic NOAEL Inhalation Vapour	Based on data for a similar substance.
mesitylene	408 Repeated Dose 90-Day Oral Toxicity Study in Rodents	Rat	600 mg/kg	-	Sub-chronic NOAEL Oral	-
	413 Subchronic Inhalation Toxicity: 90-day Study	Rat	1.23 mg/l	3 months	Sub-chronic NOAEL Inhalation Vapour	Based on data for a similar substance.
2-ethylhexan-1-ol	408 Repeated Dose 90-Day Oral Toxicity Study in Rodents	Rat	250 mg/kg	-	Sub-chronic NOAEL Oral	-
	413 Subchronic Inhalation Toxicity: 90-day Study	Rat	640 mg/m³	90 days	Sub-chronic NOAEL Inhalation Vapour	-
	408 Repeated Dose 90-Day Oral Toxicity Study in Rodents	Rat	125 mg/kg	-	Sub-chronic NOEL Oral	-
1,2,3-trimethylbenzene	None available.	Rat	25 ppm	4 weeks	Sub-acute LOAEL Inhalation Vapour	-
	None available.	Rat	30 mg/kg	28 days	Sub-acute NOAEL Oral	-
	None available.	Rat	123 mg/m³	3 months	Sub-chronic NOAEL Inhalation Vapour	-
xylene	408 Repeated Dose 90-Day Oral Toxicity Study in Rodents	Rat	150 mg/kg	-	Sub-chronic LOAEL Oral	-
	None available.	Rat	3.5 mg/l	13 weeks	Sub-chronic NOAEL Inhalation Vapour	-
cymene	422 Combined Repeated Dose Toxicity Study with the Reproduction/ Developmental Toxicity Screening Test	Rat	50 mg/kg	-	Sub-acute NOAEL Oral	Based on data for a similar substance.
	None available.	Rat	1.23 mg/l	4 weeks; 6 hours per day	Sub-acute NOAEL Inhalation	Based on data for a similar substance.

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cumene	None available.	Rat	535.8 mg/kg	-	Vapour Sub-chronic NOAEL Oral	-
	413 Subchronic Inhalation Toxicity: 90-day Study	Rat	125 ppm	90 days	Sub-chronic NOAEL Inhalation Vapour	-
(tetrapropenyl)succinic acid	407 Repeated Dose 28-day Oral Toxicity Study in Rodents	Rat	100 mg/kg	-	Sub-acute NOAEL Oral	-
	408 Repeated Dose 90-Day Oral Toxicity Study in Rodents	Rat	50 mg/kg	-	Sub-chronic NOAEL Oral	-

Conclusion/Summary : Not available.

General : No known significant effects or critical hazards.

Carcinogenicity : May cause cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

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
Solvent naphtha (petroleum), light arom.	Acute EL50 3.1 mg/l	Algae - Raphidocelis subcapitata	72 hours	-
	Acute EL50 4.5 mg/l	Daphnia - Daphnia magna	48 hours	Based on data for a similar substance.
	Acute LL50 8.2 mg/l	Fish - Pimephales promelas	96 hours	Based on data for a similar substance.
	Chronic NOEC 0.4 mg/l	Daphnia - Daphnia magna	21 days	Based on data for a similar substance.
	Chronic NOEL 0.5 mg/l	Algae - Raphidocelis subcapitata	72 hours	-
	Chronic NOEL 2.6 mg/l	Fish - Pimephales promelas	14 days	Based on data for a similar substance.
Polyolefin alkyl phenol alkyl amine	Acute EC50 5.4 mg/l	Algae	96 hours	Based on data for a similar substance.
	Chronic NOEC 3.65 mg/l	Algae	96 hours	Based on data for a similar substance.
	Chronic NOEC 3.38 mg/l	Daphnia	21 days	Based on data for a similar substance.
1,2,4-trimethylbenzene	Acute LC50 3.6 mg/l	Daphnia - Daphnia magna	48 hours	-
	Acute LC50 7.72 mg/l	Fish - Pimephales promelas	96 hours	-
mesitylene	Acute EC50 53 mg/l	Algae - Desmodesmus	48 hours	-

Section 12. Ecological information

		subspicatus		
	Acute LC50 6 mg/l	Crustaceans - Daphnia magna	48 hours	-
	Acute LC50 12.52 mg/l	Fish - Carassius auratus	96 hours	-
	Chronic EC10 16 mg/l	Algae - Desmodesmus subspicatus	48 hours	-
	Chronic NOEC 0.4 mg/l	Crustaceans - Daphnia magna	21 days	-
2-ethylhexan-1-ol	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 subspicatus	72 hours	-
1,2,3-trimethylbenzene	Acute EC50 4.4 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours	-
	Acute EC50 2.7 mg/l	Daphnia - Daphnia magna	48 hours	-
	Acute LC50 7.8 mg/l	Fish - Oryzias latipes	96 hours	-
	Chronic NOEC 1.9 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours	-
xylene	EL50 >157 mg/l	Micro-organism	3 hours	Based on data for a similar substance.
	Acute EC50 4.36 mg/l	Algae - Raphidocelis subcapitata	73 hours	Based on data for a similar substance.
	Acute EC50 >3.4 mg/l	Crustaceans - Ceriodaphnia dubia	48 hours	Based on data for a similar substance.
	Acute LC50 2.6 mg/l	Fish - Oncorhynchus mykiss	96 hours	Based on data for a similar substance.
	Chronic EC10 1.9 mg/l	Algae - Raphidocelis subcapitata	73 hours	Based on data for a similar substance.
	Chronic EC10 1.91 mg/l	Crustaceans - Daphnia magna	21 days	Based on data for a similar substance.
	Chronic NOEC 0.714 mg/l	Fish - Danio rerio	35 days	Based on data for a similar substance.
cymene	Acute EC50 5.8 mg/l	Algae	72 hours	Based upon data for a similar product.
	Acute EC50 1.9 mg/l	Daphnia	48 hours	Based on data for a similar substance.
	Acute LC50 2 mg/l	Fish	96 hours	Based on data for a similar substance.
	Chronic NOEC 0.48 mg/l	Algae	72 hours	Based on data for a similar substance.
	Chronic NOEC 0.46 mg/l	Daphnia - Daphnia magna	21 days	Based on data for a similar substance.
	Chronic NOEC 0.69 mg/l	Fish	-	Based on data for a similar substance.

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cumene	EC50 >2000 mg/l	Micro-organism	3 hours	-
	Acute EC50 2.01 mg/l	Algae - Desmodesmus subspicatus	72 hours	-
	Acute EC50 2.14 mg/l	Crustaceans - Daphnia magna	48 hours	-
	Acute EC50 10.6 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours	-
	Acute LC50 4.8 mg/l	Fish - Oncorhynchus mykiss	96 hours	-
	Chronic EC10 1.35 mg/l	Algae - Desmodesmus subspicatus	72 hours	-
	Chronic NOEC 0.35 mg/l	Crustaceans - Daphnia magna	21 days	QSAR result.
	Chronic NOEC 0.38 mg/l	Fish - D. rerio and P. promelas	28 days	QSAR result.
(tetrapropenyl)succinic acid	EL50 >10000 mg/l	Micro-organism	3 hours	-
	Acute EL50 100 mg/l	Algae - Raphidocelis subcapitata	96 hours	-
	Acute EL50 >100 mg/l	Crustaceans - Daphnia magna	48 hours	-
	Acute LL50 >100 mg/l	Fish - Oncorhynchus mykiss	96 hours	-
	Chronic NOEL 33 mg/l	Algae - Raphidocelis subcapitata	96 hours	-

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

Persistence and degradability

Product/ingredient name	Test	Result	Remarks
Polyolefin alkyl phenol alkyl amine	OECD 301D Ready Biodegradability - Closed Bottle Test	4 % - Not readily - 28 days	Based on data for a similar substance.
mesitylene	-	42 % - Not readily - 28 days	-
2-ethylhexan-1-ol	OECD 301C Ready Biodegradability - Modified MITI Test (I)	100 % - Readily - 14 days	-
1,2,3-trimethylbenzene	-	42 % - Not readily - 28 days	Based on data for a similar substance.
xylene	OECD 301F Ready Biodegradability - Manometric Respirometry Test	87.8 % - Readily - 28 days	Based on data for a similar substance.
cumene	-	70 % - Readily - 20 days	-
(tetrapropenyl)succinic acid	OECD 301F Ready Biodegradability - Manometric Respirometry Test	18.3 % - Not readily - 28 days	-

Bioaccumulative potential

Section 12. Ecological information

Product/ingredient name	$LogP_{ow}$	BCF	Potential
Solvent naphtha (petroleum), light arom.	-	10 to 2500	high
1,2,4-trimethylbenzene	3.63	243	low
mesitylene	3.42	161	low
2-ethylhexan-1-ol	2.9	25.33	low
1,2,3-trimethylbenzene	3.66	194.98	low
xylene	3.12	8.1 to 25.9	low
cymene	4.1	-	high
cumene	3.55	35.48	low
(tetrapropenyl)succinic acid	4.76	-	high

Mobility in soil

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

Mobility : Not available.

Hazardous to the ozone layer : Not applicable.

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

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimised 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. Vapour 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 spilt material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	UN	ADG	IMDG	IATA
14.1 UN number	UN1993	UN1993	UN1993	UN1993
14.2 UN proper shipping name	FLAMMABLE LIQUID, N.O.S. (Solvent naphtha, Trimethylbenzenes)	FLAMMABLE LIQUID, N.O.S. (Solvent naphtha, Trimethylbenzenes)	FLAMMABLE LIQUID, N.O.S. (Solvent naphtha, Trimethylbenzenes) Marine pollutant	FLAMMABLE LIQUID, N.O.S. (Solvent naphtha, Trimethylbenzenes)
		3	3	3

Section 14. Transport information

14.3 Transport hazard class (es)	3 			
14.4 Packing group	III	III	III	III
14.5 Environmental hazards	Yes.	Yes.	Yes.	Yes.

14.6 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.

14.7 Transport in bulk according to IMO instruments : Not available.

Section 15. Regulatory information

China

List of Goods banned for Importing

None of the components are listed.

List of Goods banned for Exporting

None of the components are listed.

List of Toxic Chemicals Severely Restricted for Importing & Exporting by China

None of the components are listed.

Singapore

Singapore - hazardous chemicals under government control

None.

Australia

Standard for the Uniform Scheduling of Medicines and Poisons

Not applicable.

Model Work Health and Safety Regulations - Scheduled Substances

No listed substance

Japan

Fire Service Law

Category	Substance name/Type	Danger category
Category IV	Class II petroleums	III

Industrial Safety and Health Act

Label Requirements and Chemicals Requiring Notification

Section 15. Regulatory information

Ingredient name	%
Petroleum naphtha	≥35 - ≤45
Trimethylbenzene	≥15 - ≤25
Xylene	≥1.0 - ≤3.0
Cumene	≥0.30 - ≤0.50

Chemical Substances Control Law (CSCL)

Ingredient name	%	Status	Reference number
1,2,4-Trimethylbenzene	≥10 - ≤15	Priority assessment	49
1,3,5-Trimethylbenzene	≥3.0 - ≤5.0	Priority assessment	201
Xylene	≥1.0 - ≤3.0	Priority assessment	125

Poisonous and Deleterious Substances

None of the components are listed.

Pollutant Release and Transfer Registers (PRTR)

Ingredient name	%	Measured as	Status	Control number
Trimethylbenzene	≥15 - ≤25		Class 1	691
Xylene	≥1.0 - ≤3.0		Class 1	80

For information of a target concentration please contact your Afton representative.

Japan - Water Pollution Control Law

Ingredient name
Phenol derivative compounds

Korea

Regulation according to ISHA

ISHA article 117 (Harmful substances prohibited from manufacture) : None of the components are listed.

ISHA article 118 (Harmful substances requiring permission) : None of the components are listed.

Standard of Industrial Safety and Health Annex 12 (Hazardous substances subject to control) : The following components are listed: xylene

Section 15. Regulatory information

	Ingredient name	Remarks
ISHA Enforcement Regs Annex 19 (Exposure standards established for harmful factors) :	benzene	Impurity (<0.1%)

	Ingredient name	Remarks
ISHA Enforcement Regs Annex 21 (Harmful factors subject to Work Environment Measurement) :	xylene	Impurity

	Ingredient name	Remarks
ISHA Enforcement Regs Annex 22 (Harmful Factors Subject to Special Health Check-up) :	Xylene	Impurity

Wastes regulation : Designated waste

Regulation according to K-REACH/CCA

	Chemical name	%	Remarks
K-REACH/CCA Toxic chemicals :	Xylene	1 - <5	Impurity
	Benzene	<0.1	Impurity
	Naphthalene	<0.1	Impurity
	o-cresol	<0.01	Impurity
	Propylene oxide	<0.001	Impurity

K-REACH/CCA - Banned : None of the components are listed.

K-REACH/CCA - Restricted : None of the components are listed.

K-REACH/CCA Article - TRI : The following components are listed: Xylene including o-,m-,p- isomer

K-REACH/CCA Article 39 (Accident Precaution Chemicals) : None of the components are listed.

Dangerous Materials Safety Management Act :
Class: Class 4 - Flammable Liquid
Item: 4. Class 2 petroleums - Water-insoluble liquid
Threshold: 1000 L
Danger category: III
Signal word: Contact with sources of ignition prohibited

International Inventory Status

Australia (AIIC) : All components are listed or exempted.

Canada (DSL/NDSL) : All components are listed or exempted.

Section 15. Regulatory information

China (IECSC) : All components are listed or exempted.

Europe (REACh) : For information on compliance with this regulation please contact your Afton representative (EHS.CustomerVolumes@AftonChemical.com).

Japan (ENCS) : All components are listed or exempted.

Republic of Korea (ECL) : All components are listed or exempted.

New Zealand (NZIoC) : All components are listed or exempted.

Philippines (PICCS) : All components are listed or exempted.

Switzerland (SWISS) : For information on compliance with this regulation please contact your Afton representative (EHS.CustomerVolumes@AftonChemical.com).

Turkey (KKDIK) : For information on compliance with this regulation please contact your Afton representative (EHS.CustomerVolumes@AftonChemical.com).

Taiwan (TCSI) : All components are listed or exempted.

United Kingdom (UK REACh) : For information on compliance with this regulation please contact your Afton representative (EHS.CustomerVolumes@AftonChemical.com).

United States Active (TSCA) : All components are active or exempted.

Section 16. Other information

History

Date of issue/Date of revision : 11/28/2023

EHS Department (Tel: +1 804 788 5800)

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

Procedure used to derive the classification

Classification	Justification
FLAMMABLE LIQUIDS - Category 3	On basis of test data
SKIN CORROSION/IRRITATION - Category 3	Calculation method
CARCINOGENICITY - Category 1B	Calculation method
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3	Calculation method
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Narcotic effects) - Category 3	Calculation method
ASPIRATION HAZARD - Category 1	Calculation method
SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 2	Calculation method
LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2	Calculation method

Indicates information that has changed from previously issued version.

Notice to reader

Section 16. Other information

This information and these recommendations are offered in good faith and believed to be correct as of the date hereof. Information and recommendations are supplied upon the condition that the recipients will make their own decision as to safety and suitability for their purposes. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose, or of any other nature, are made with respect to the product or the information and recommendations. Afton makes no representation as to completeness or accuracy. In no event will Afton be responsible for damages of any nature whatsoever resulting from the use or reliance upon the information and recommendations.