



## SAFETY DATA SHEET

# Octamar™ LI-5

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

Product name	: Octamar™ LI-5
Product code	: FS-000196
Internal code	: 14021
Date of issue/ Date of revision	: 4/29/2024
Date of previous issue	: 4/29/2024
Version	: 10.05
Product description	: Mixture
Physical state	: Liquid.
Chemical identity	: Not available.
UFI	: YFR0-C07Y-D00K-EKF0

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

##### Identified uses

Petrochemical industry: Petrochemicals. Fuel additive.

#### 1.3 Details of the supplier of the safety data sheet

UK Supplier : Innospec Limited  
Innospec Manufacturing Park  
Oil Sites Road, Ellesmere Port  
Cheshire CH65 4EY  
United Kingdom

Telephone no.: : +44 (0)151 355 3611

Fax no. : +44 (0)151 356 2349

e-mail address of person responsible for this SDS : sdsinfo@innospecinc.com

EU Supplier : Innospec Limited  
Boite Postale 19, F-55300 St. Mihiel  
Han-sur-Meuse, Meuse, France  
+ 33 3 2991 7300

#### 1.4 Emergency telephone number

In Europe, Middle East, Africa, Asia Pacific and South America

24 hour / 7 day emergency response for our products is provided by the NCEC CARECHEM 24 global network



The main regional centres are listed here in Section 1. Other local contact numbers for specific language support in Asia Pacific are listed in Section 16.

#### Country information

#### Emergency telephone number

Europe ( all countries, all languages ) : +44 (0) 1235 239 670 London, UK

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

Middle East, Africa ( Arabic, French, English , Portuguese, Farsi)	:	+44 (0) 1235 239 671	London, UK
Asia Pacific ( all countries except China )	:	+65 3158 1074	Singapore
China	:	400 120 6011	Beijing China
Brazil	:	+55 11 3197 5891	Brazil
Mexico	:	+52 555 004 8763	Mexico

In USA, Canada and North America, 24 h/7 days of emergency response for our product is provided by the CHEMTREC(R) Emergency Call Center based in the USA.

Country information	:	Emergency telephone number
USA	:	800 424 9300
Canada, Puerto Rico, Virgin Islands	:	+1 800 424 9300
In case of difficulty using the toll-free number, or for ships at sea, call	:	+1 703 527 3887

► Indicates information that has changed from previously issued version.

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Product definition** : Mixture

#### Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Aquatic Chronic 2, H411

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

### 2.2 Label elements

**Hazard pictograms** :



**Signal word**

: No signal word.

**Hazard statements**

: H411 - Toxic to aquatic life with long lasting effects.

**Supplemental label elements**

: Not applicable.

#### Precautionary statements

<b>General</b>	: Not applicable.
<b>Prevention</b>	: P273 - Avoid release to the environment.
<b>Response</b>	: P391 - Collect spillage.
<b>Storage</b>	: Not applicable.
<b>Disposal</b>	: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Hazardous ingredients** : Not applicable.

#### Special packaging requirements

**Containers to be fitted with child-resistant fastenings** : Not applicable.

**Tactile warning of danger** : Not applicable.

### 2.3 Other hazards

## SECTION 2: Hazards identification

**Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII** : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

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

### **SECTION 3: Composition/information on ingredients**

## 3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	% w/w	Classification	Specific Conc. Limits, M-factors and ATEs	Type
2,6-di-tert-butylphenol	REACH #: 01-2119490822-33 EC: 204-884-0 CAS: 128-39-2	≤5	Acute Tox. 4, H302 Skin Irrit. 2, H315 Aquatic Acute 1, H400 Aquatic Chronic 1, H410  <b>See Section 16 for the full text of the H statements declared above.</b>	ATE [Oral] = 1320 mg/kg M [Acute] = 1 M [Chronic] = 1	[1]

## Additional CAS # used in National Inventories

2,6-di-tert-butylphenol - 128-39-2

## Additional information

## Type

[1] Substance classified with a health or environmental hazard

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

Our BEACH (pre-) registrations DO NOT cover the following:

Our REACh (pre-) registrations DO NOT cover the following:

1. The manufacture of these products by our company outside the EU unless covered by the Only Representative provisions, and
2. The importation of these products into Europe by other companies. Re-importation by other companies is not covered by our (pre-) registrations

Customers and other third parties importing and/or re-importing our products into Europe will need either:

- Their own (pre-) registration for substances contained in the imported product, or constituent monomers (imported above 1 tonne per year and >2% by weight) in the case of imported polymers, or
- In the case of importation only, to make use of the "Only Representative" provisions, if available.

## SECTION 4: First aid measures

#### 4.1 Description of first aid measures

<b>Eye contact</b>	: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
<b>Inhalation</b>	: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
<b>Skin contact</b>	: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

## SECTION 4: First aid measures

**Ingestion** : Remove dentures if any. Wash out mouth with water. Stop if the exposed person feels sick as vomiting may be dangerous. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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 adverse health effects persist or are severe. 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.

**Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.

### 4.2 Most important symptoms and effects, both acute and delayed

#### Potential acute health effects

**Eye contact** : No known significant effects or critical hazards.

**Inhalation** : No known significant effects or critical hazards.

**Skin contact** : No known significant effects or critical hazards.

**Ingestion** : No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

**Eye contact** : No specific data.

**Inhalation** : No specific data.

**Skin contact** : No specific data.

**Ingestion** : No specific data.

### 4.3 Indication of any immediate medical attention and special treatment needed

**Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

**Specific treatments** : No specific treatment.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.

**Unsuitable extinguishing media** : None known.

### 5.2 Special hazards arising from the substance or mixture

**Hazards from the substance or mixture** : In a fire or if heated, a pressure increase will occur and the container may burst. 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

**Aliphatic carboxylic acid** : This material increases the risk of fire and may aid combustion.

### 5.3 Advice for firefighters

**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.

## SECTION 5: Firefighting measures

**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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

## SECTION 6: Accidental release measures

### 6.1 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. 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".

**6.2 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.

### 6.3 Methods and material for containment and cleaning up

**Small spill** : Stop leak if without risk. Move containers from spill area. 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. 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. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.

**6.4 Reference to other sections** : See Section 1 for emergency contact information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.

## SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 7.1 Precautions for safe handling

**Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. 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.

### 7.2 Conditions for safe storage, including any incompatibilities

## SECTION 7: Handling and storage

**Storage** : Store in accordance with local regulations. Store in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). 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.

### 7.3 Specific end use(s)

**Recommendations** : Not available.

**Industrial sector specific solutions** : Not available.

## SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 8.1 Control parameters

#### Occupational exposure limits

No exposure limit value known.

**Recommended monitoring procedures** : Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

#### DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
2,6-di-tert-butylphenol	DMEL	Long term Oral	1.67 mg/kg bw/day	General population [Human via the environment]	Systemic
	DMEL	Long term Dermal	2.77 mg/kg bw/day	Workers	Systemic
	DMEL	Long term Inhalation	19.6 mg/m <sup>3</sup>	Workers	Systemic
	DMEL	Long term Inhalation	5.8 mg/m <sup>3</sup>	General population [Human via the environment]	Systemic
	DNEL	Long term Oral	6.75 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	6.75 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	11.25 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	20.9 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Long term Inhalation	70.61 mg/m <sup>3</sup>	Workers	Systemic

#### PNECs

## SECTION 8: Exposure controls/personal protection

Product/ingredient name	Type	Compartment Detail	Value	Method Detail
2,6-di-tert-butylphenol	PNEC	Fresh water	0.45 µg/l	-
	PNEC	Marine	0.045 µg/l	-
	PNEC	Sediment	0.196 mg/kg dwt	-
	PNEC	Marine water sediment	0.0196 mg/kg dwt	-
	PNEC	Soil	38.9 mg/kg dwt	-
	PNEC	Sewage Treatment Plant	10 mg/l	-
	PNEC	Secondary Poisoning	6.67 mg/kg	-

### 8.2 Exposure controls

**Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

**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. Recommended: splash goggles

**Skin protection**

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. > 8 hours (breakthrough time): Viton®  
1 - 4 hours (breakthrough time): nitrile rubber

**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. Recommended: organic vapour filter (Type A)

**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.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

**Physical state** : Liquid.

**Colour** : Yellow.

**Odour** : Aromatic.

**Odour threshold** : Not available.

## SECTION 9: Physical and chemical properties

<b>pH</b>	: Not applicable.
<b>Melting point/freezing point</b>	: <-10°C
<b>Initial boiling point and boiling range</b>	: Lowest known value: >200°C (>392°F)(Aliphatic carboxylic acid.). Weighted average: 247.5°C (477.5°F)
<b>Flash point</b>	: Closed cup: 96°C (204.8°F) [Pensky-Martens]
<b>Evaporation rate</b>	: Not available.
<b>Flammability (solid, gas)</b>	: Not available.
<b>Burning time</b>	: Not applicable.
<b>Burning rate</b>	: Not applicable.
<b>Upper/lower flammability or explosive limits</b>	: Not available.
<b>Vapour pressure</b>	: Highest known value: <0.0001 kPa (<0.001 mm Hg) (at 20°C) (Aliphatic carboxylic acid.).
<b>Vapour density</b>	: Not available.
<b>Relative density</b>	: Not available.
<b>Density</b>	: 0.909 g/cm³ [15°C (59°F)]
<b>Solubility(ies)</b>	:
<b>Partition coefficient: n-octanol/water</b>	: Not available.
<b>Auto-ignition temperature</b>	: Lowest known value: 362°C (683.6°F) (Aliphatic carboxylic acid.).
<b>Decomposition temperature</b>	: Not available.
<b>Viscosity</b>	: Kinematic (40°C (104°F)): 16 mm²/s (16 cSt)
<b>Explosive properties</b>	: Not available.
<b>Oxidising properties</b>	: Not available.
<b>Particle characteristics</b>	
<b>Median particle size</b>	: Not applicable.

### 9.2 Other information

<b>Pour point</b>	: -15°C
-------------------	---------

## SECTION 10: Stability and reactivity

<b>10.1 Reactivity</b>	: No specific test data related to reactivity available for this product or its ingredients.
<b>10.2 Chemical stability</b>	: The product is stable.
<b>10.3 Possibility of hazardous reactions</b>	: Under normal conditions of storage and use, hazardous reactions will not occur.
<b>10.4 Conditions to avoid</b>	: No specific data.
<b>10.5 Incompatible materials</b>	: No specific data.
<b>10.6 Hazardous decomposition products</b>	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### Acute toxicity

Product/ingredient name	Test	Species	Result type	Dose
2,6-di-tert-butylphenol	-	Rabbit	LD50 Dermal	>10 g/kg
	-	Rabbit	LD50 Dermal	>10000 mg/kg
	-	Rat	LD50 Oral	1320 mg/kg
	-	Rat	LD50 Oral	>5000 mg/kg
	OECD 401 Acute Oral Toxicity	Rat - Male, Female	LD50 Oral	>5000 mg/kg

#### Acute toxicity estimates (ATE)

Route	ATE value
Oral	26730 mg/kg

#### Irritation/Corrosion

Product/ingredient name	Test	Species	Result
2,6-di-tert-butylphenol	OECD 405 Acute Eye Irritation/Corrosion	Rabbit	Eyes - Cornea opacity 0
	OECD 404 Acute Dermal Irritation/Corrosion	Rabbit	Skin - Erythema/ Eschar 2
	-	Rat	Skin - Moderate irritant -

#### Sensitisation

Product/ingredient name	Test	Species	Result
2,6-di-tert-butylphenol	OECD 406 Skin Sensitization	Guinea pig	Not sensitizing -

#### Potential chronic health effects

Product/ingredient name	Test	Species	Result	Dose
2,6-di-tert-butylphenol	OECD 407 Repeated Dose 28-day Oral Toxicity Study in Rodents	Rat - Male, Female	Sub-acute NOAEL Oral	100 mg/kg
	OECD 407 Repeated Dose 28-day Oral Toxicity Study in Rodents	Rat - Male, Female	Sub-acute NOEL Oral	15 mg/kg

#### Mutagenicity

Product/ingredient name	Test	Experiment	Result
2,6-di-tert-butylphenol	-	Experiment: In vitro Subject: Bacteria Metabolic activation: With Experiment: In vitro Subject: Mammalian-Animal	Negative -
	OECD 473 In vitro Mammalian Chromosomal Aberration Test		Negative OECD 473 In vitro Mammalian Chromosomal Aberration Test

#### Reproductive toxicity

Product/ingredient name	Test	Species	Result	Dose
2,6-di-tert-butylphenol	OECD 421 Reproduction/ Developmental Toxicity Screening Test	Rat	-	Oral

**Information on likely routes of exposure** : Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

## SECTION 11: Toxicological information

### Potential acute health effects

**Eye contact** : No known significant effects or critical hazards.  
**Inhalation** : No known significant effects or critical hazards.  
**Skin contact** : No known significant effects or critical hazards.  
**Ingestion** : No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** : No specific data.  
**Inhalation** : No specific data.  
**Skin contact** : No specific data.  
**Ingestion** : No specific data.

### 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.

**General** : No known significant effects or critical hazards.  
**Carcinogenicity** : No known significant effects or critical hazards.  
**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.

### 11.2 Information on other hazards

#### 11.2.1 Endocrine disrupting properties

No known significant effects or critical hazards.

#### 11.2.2 Other information

Not available.

## SECTION 12: Ecological information

### 12.1 Toxicity

Product/ingredient name	Test	Species	Exposure	Result
Octamar™ LI-5	-	Fish	96 hours	Acute LC50 10 to 20 mg/l Estimated.

### 12.2 Persistence and degradability

Product/ingredient name	Test	Result
2,6-di-tert-butylphenol	OECD 302C Inherent Biodegradability: Modified MITI Test (II) EPA Anaerobic	12 to 24 % - Not readily - 28 days 9 % - Not readily - 28 days

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
2,6-di-tert-butylphenol	-	-	Not readily

### 12.3 Bioaccumulative potential

Octamar™ LI-5

## SECTION 12: Ecological information

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
2,6-di-tert-butylphenol	4.5	660	High

### 12.4 Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Mobility** : Not available.

### 12.5 Results of PBT and vPvB assessment

**PBT** : Not applicable.

**vPvB** : Not applicable.

### 12.6 Endocrine disrupting properties

No known significant effects or critical hazards.

### 12.7 Other adverse effects

No known significant effects or critical hazards.

## SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 13.1 Waste treatment methods

#### Product

**Methods of disposal** : 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.

#### **Hazardous waste**

: The classification of the product may meet the criteria for a hazardous waste.

#### Packaging

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

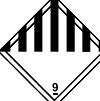
#### **Special precautions**

: 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. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
<b>14.1 UN number</b>	UN3082	UN3082	UN3082	UN3082
<b>14.2 UN proper shipping name</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (phenol, 2,6-di-tert-butyl-)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (phenol, 2,6-di-tert-butyl-)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (phenol, 2,6-di-tert-butyl-). Marine pollutant (phenol, 2,6-di-tert-butyl-)	Environmentally hazardous substance, liquid, n.o.s. (phenol, 2,6-di-tert-butyl-)

## SECTION 14: Transport information

14.3 Transport hazard class(es)	9  	9  	9  	9  
14.4 Packing group	III	III	III	III
14.5 Environmental hazards	Yes.	Yes.	Yes.	Yes.
<b>Additional information</b>	<p>This product is not regulated as a dangerous good when transported in sizes of <math>\leq 5</math> L or <math>\leq 5</math> kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.</p> <p><b>Hazard identification number</b> 90</p> <p><b>Limited quantity</b> 5 L</p> <p><b>Special provisions</b> 274, 335, 375, 601</p> <p><b>Tunnel code</b> (-)</p>	<p>This product is not regulated as a dangerous good when transported in sizes of <math>\leq 5</math> L or <math>\leq 5</math> kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.</p> <p><b>Special provisions</b> 274, 335, 375, 601</p>	<p>This product is not regulated as a dangerous good when transported in sizes of <math>\leq 5</math> L or <math>\leq 5</math> kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.</p> <p><b>Emergency schedules</b> F-A, S-F</p> <p><b>Special provisions</b> 274, 335, 969</p>	
14.6 Special precautions for user				
14.7 Maritime transport in bulk according to IMO instruments				

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

#### EU Regulation (EC) No. 1907/2006 (REACH)

##### Annex XIV - List of substances subject to authorisation

##### Annex XIV

None of the components are listed.

##### Substances of very high concern

None of the components are listed.

##### Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name	%	Designation [Usage]
Octamar™ LI-5	$\geq 90$	3

**Labelling** : Not applicable.

## SECTION 15: Regulatory information

### Other EU regulations

<b>VOC</b>	: The provisions of Directive 2004/42/EC on VOC apply to this product. Refer to the product label and/or technical data sheet for further information.
<b>VOC for Ready-for-Use Mixture</b>	: Not available.
<b>Industrial emissions (integrated pollution prevention and control) - Air</b>	: Not listed
<b>Industrial emissions (integrated pollution prevention and control) - Water</b>	: Not listed
<b>Explosive precursors</b>	: Not applicable.

### Seveso Directive - Reporting thresholds (in tonnes)

#### Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
E2	200	500

### Ozone depleting substances (1005/2009/EU)

Not listed.

### Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

### Persistent Organic Pollutants

Not listed.

### National regulations

<b>Chemical Weapons Convention List Schedule I Chemicals</b>	:Not listed
<b>Chemical Weapons Convention List Schedule II Chemicals</b>	:Not listed
<b>Chemical Weapons Convention List Schedule III Chemicals</b>	:Not listed

### International lists

<b>Australia inventory (AIIC)</b>	:All components are listed or exempted.
<b>Canada inventory</b>	:All components are listed or exempted.
<b>China inventory (IECSC)</b>	:All components are listed or exempted.
<b>EU REACH Status</b>	:Please contact your supplier for information on the REACH status of this material.
<b>Japan inventory</b>	:All components are listed or exempted.
<b>Korea REACH Status</b>	:Please contact your supplier for information on the REACH status of this material.
<b>New Zealand Inventory of Chemicals (NZIoC)</b>	:All components are listed or exempted.
<b>Philippines inventory (PICCS)</b>	:All components are listed or exempted.
<b>Taiwan REACH Status</b>	:Please contact your supplier for information on the REACH status of this material.
<b>Turkey REACH Status</b>	:Please contact your supplier for information on the REACH status of this material.
<b>United States inventory (TSCA 8b)</b>	:All components are listed or exempted.

## SECTION 15: Regulatory information

### Vietnam inventory

:All components are listed or exempted.

### 15.2 Chemical safety assessment

: This product contains substances for which Chemical Safety Assessments are still required.  
Not to be used for hydraulic fracking applications

## SECTION 16: Other information

### Abbreviations and acronyms

: ATE = Acute Toxicity Estimate  
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]  
DNEL = Derived No Effect Level  
EUH statement = CLP-specific Hazard statement  
PNEC = Predicted No Effect Concentration  
RRN = REACH Registration Number

### Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Aquatic Chronic 2, H411	Calculation method

### Full text of abbreviated H statements

: H302 Harmful if swallowed.  
H315 Causes skin irritation.  
H400 Very toxic to aquatic life.  
H410 Very toxic to aquatic life with long lasting effects.  
H411 Toxic to aquatic life with long lasting effects.

### Full text of classifications [CLP/GHS]

Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
Aquatic Chronic 1	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1
Aquatic Chronic 2	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2

### Date of printing

: 2024-04-29

### Date of issue/ Date of revision

: 4/29/2024

### Date of previous issue

: 4/29/2024

### Version

: 10.05

## Emergency contact numbers for local language support in Asia Pacific region

Country information	Languages supported	Telephone no.:	Location
Australia	English	+61 2 8014 4558	Australia
Bangladesh	Bengali, English	+65 3158 1200	Singapore
China	Mandarin, English	400 120 6011	Beijing China
India	Hindi, English	+65 3158 1198	Singapore
India ( local toll free number )	Hindi, English	000800 100 7479	India

**SECTION 16: Other information**

Indonesia (local toll free number)	Bahasa Indonesian, English	00780 3011 0293	Indonesia
Japan	Japanese, English	+81 3 4578 9341	Japan
Korea	Korean, English	+65 3158 1285	Singapore
Malaysia	Bahasa Malaysian, English	+60 3 6207 4347	Malaysia
New Zealand	English	+64 9929 1483	New Zealand
Pakistan	Urdu, English	+65 3158 1329	Singapore
Philippines	Tagalog, English	+63 2 8231 2149	Singapore
Sri Lanka	Sinhalese, English	+65 3158 1195	Singapore
Thailand (local toll free number)	Thai, English	001800 1 2066 6751	Thailand
Vietnam	Vietnamese, English	+65 3158 1255	Singapore

**Notice to reader**

The information in this Safety Data Sheet is based on the present state of knowledge and current legislation. It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications. The product should not be used for purposes other than those shown in Section 1 without first referring to the supplier and obtaining written handling instructions. As the specific conditions of use of the product are outside the supplier's control, the user is responsible for ensuring that the requirements of relevant legislation are complied with. The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation.



## SAFETY DATA SHEET

# Octamar™ LI-5 Plus

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

Product name	:	Octamar™ LI-5 Plus
Product code	:	14011
Internal code	:	14011
Date of issue/ Date of revision	:	4/29/2024
Date of previous issue	:	4/29/2024
Version	:	3.04
Product description	:	Mixture
Physical state	:	Liquid.
Chemical identity	:	Not available.
UFI	:	0CR0-U0JK-3003-R7UX

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

##### Identified uses

Petrochemical industry: Petrochemicals. Fuel additive.

#### 1.3 Details of the supplier of the safety data sheet

UK Supplier : Innospec Limited  
Innospec Manufacturing Park  
Oil Sites Road, Ellesmere Port  
Cheshire CH65 4EY  
United Kingdom

Telephone no.: : +44 (0)151 355 3611

Fax no. : +44 (0)151 356 2349

e-mail address of person responsible for this SDS : sdsinfo@innospecinc.com

EU Supplier : Innospec Limited  
Boite Postale 19, F-55300 St. Mihiel  
Han-sur-Meuse, Meuse, France  
+ 33 3 2991 7300

#### 1.4 Emergency telephone number

In Europe, Middle East, Africa, Asia Pacific and South America

24 hour / 7 day emergency response for our products is provided by the NCEC CARECHEM 24 global network



The main regional centres are listed here in Section 1. Other local contact numbers for specific language support in Asia Pacific are listed in Section 16.

#### Country information

#### Emergency telephone number

Europe ( all countries, all languages )

: +44 (0) 1235 239 670

London, UK

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

**Middle East, Africa ( Arabic, French, English , Portuguese, Farsi)** : +44 (0) 1235 239 671 London, UK

**Asia Pacific ( all countries except China )** : +65 3158 1074 Singapore  
**China** : 400 120 6011 Beijing China  
**Brazil** : +55 11 3197 5891 Brazil  
**Mexico** : +52 555 004 8763 Mexico

In USA, Canada and North America, 24 h/7 days of emergency response for our product is provided by the CHEMTREC(R) Emergency Call Center based in the USA.

**Country information** : **Emergency telephone number**

**USA** : 800 424 9300

**Canada, Puerto Rico, Virgin Islands** : +1 800 424 9300

**In case of difficulty using the toll-free number, or for ships at sea, call** : +1 703 527 3887

► Indicates information that has changed from previously issued version.

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Product definition** : Mixture

#### Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Carc. 2, H351

STOT SE 3, H336

Aquatic Chronic 2, H411

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

### 2.2 Label elements

**Hazard pictograms** :



**Signal word** : Warning

**Hazard statements** : H336 - May cause drowsiness or dizziness.

H351 - Suspected of causing cancer.

H411 - Toxic to aquatic life with long lasting effects.

**Supplemental label elements**

: Repeated exposure may cause skin dryness or cracking.  
 Contains Amines, polyethylenepoly-, tetraethylenepentamine fraction and maleic anhydride. May produce an allergic reaction.

#### Precautionary statements

**General** : Not applicable.

**Prevention** : P201 - Obtain special instructions before use.  
 P280 - Wear protective gloves: > 8 hours (breakthrough time): Viton®1 - 4 hours (breakthrough time): nitrile rubber. Wear protective clothing. Wear eye or face protection: Recommended: splash goggles. Wear hearing protection.  
 P273 - Avoid release to the environment.  
 P261 - Avoid breathing vapour.

**Response** : P391 - Collect spillage.

P308 + P313 - IF exposed or concerned: Get medical advice or attention.

P304 + P312 - IF INHALED: Call a POISON CENTER or doctor if you feel unwell.

**Storage**

: P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.

## SECTION 2: Hazards identification

<b>Disposal</b>	: P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
<b>Hazardous ingredients</b>	: Hydrocarbons C10, Aromatics, <1% Naphthalene, [Solvent naphtha (petroleum), heavy arom.] and naphthalene
<b>Special packaging requirements</b>	
<b>Containers to be fitted with child-resistant fastenings</b>	: Not applicable.
<b>Tactile warning of danger</b>	: Not applicable.
<b>2.3 Other hazards</b>	
<b>Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII</b>	: This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
<b>Other hazards which do not result in classification</b>	: None known.

## SECTION 3: Composition/information on ingredients

3.2 Mixtures	: Mixture				
Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
Hydrocarbons C10, Aromatics, <1% Naphthalene, [Solvent naphtha (petroleum), heavy arom.]	REACH #: 01-2119463583-34 EC: 918-811-1 CAS: 64742-94-5 Index: 649-424-00-3	≥25 - ≤50	STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 EUH066	-	[1] [2]
Hydrocarbons, C10, aromatics, >1% naphthalene [Solvent naphtha (petroleum), heavy arom.]	REACH #: 01-2119463588-24 EC: 919-284-0 CAS: 64742-94-5	≥10 - ≤25	STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 EUH066	-	[1] [2]
naphthalene	EC: 202-049-5 CAS: 91-20-3 Index: 601-052-00-2	≤3	Acute Tox. 4, H302 Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	ATE [Oral] = 490 mg/kg M [Acute] = 1 M [Chronic] = 1	[1] [2]
2,6-di-tert-butylphenol	REACH #: 01-2119490822-33 EC: 204-884-0 CAS: 128-39-2	≤3	Acute Tox. 4, H302 Skin Irrit. 2, H315 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	ATE [Oral] = 1320 mg/kg M [Acute] = 1 M [Chronic] = 1	[1]
Amines, polyethylenopoly-tetraethylenepentamine fraction	REACH #: 01-2119487290-37 EC: 203-986-2 CAS: 112-57-2 Index: 612-060-00-0	≤0.3	Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1B, H314 Eye Irrit. 2, H319 Skin Sens. 1, H317 Aquatic Chronic 2, H411	ATE [Oral] = 500 mg/kg ATE [Dermal] = 1260 mg/kg	[1]
maleic anhydride	REACH #: 01-2119472428-31 EC: 203-571-6 CAS: 108-31-6 Index: 607-096-00-9	<0.001	Acute Tox. 4, H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Resp. Sens. 1, H334 Skin Sens. 1A, H317 STOT RE 1, H372	ATE [Oral] = 400 mg/kg Skin Sens. 1, H317: C ≥ 0.001%	[1]

## SECTION 3: Composition/information on ingredients

			(respiratory system) (inhalation) EUH071 <b>See Section 16 for the full text of the H statements declared above.</b>		
--	--	--	---	--	--

### Additional CAS # used in National Inventories

Solvent naphtha (petroleum), heavy arom.	-	64742-94-5
Solvent naphtha (petroleum), heavy arom.	-	64742-94-5
naphthalene	-	91-20-3
2,6-di-tert-butylphenol	-	128-39-2
Polyalkylenepolyamine	-	112-57-2

### Additional information

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs or vPvBs or have been assigned a workplace exposure limit and hence require reporting in this section.

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

Our REACH (pre-) registrations DO NOT cover the following:

1. The manufacture of these products by our company outside the EU unless covered by the Only Representative provisions, and
2. The importation of these products into Europe by other companies. Re-importation by other companies is not covered by our (pre-) registrations

Customers and other third parties importing and/or re-importing our products into Europe will need either:

- Their own (pre-) registration for substances contained in the imported product, or constituent monomers (imported above 1 tonne per year and >2% by weight) in the case of imported polymers, or
- In the case of importation only, to make use of the "Only Representative" provisions, if available.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

**Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

**Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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.

**Skin contact** : Wash skin thoroughly with soap and water or use recognised skin cleanser. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

**Ingestion** : Remove dentures if any. Wash out mouth with water. Stop if the exposed person feels sick as vomiting may be dangerous. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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.

## SECTION 4: First aid measures

**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.

### 4.2 Most important symptoms and effects, both 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.

**Skin contact** : Defatting to the skin. May cause skin dryness and irritation.

**Ingestion** : Can cause central nervous system (CNS) depression.

#### Over-exposure signs/symptoms

**Eye contact** : No specific data.

**Inhalation** : Adverse symptoms may include the following:  
nausea or vomiting  
headache  
drowsiness/fatigue  
dizziness/vertigo  
unconsciousness

**Skin contact** : Adverse symptoms may include the following:  
irritation  
dryness  
cracking

**Ingestion** : No specific data.

### 4.3 Indication of any immediate medical attention and special treatment needed

**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.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.

**Unsuitable extinguishing media** : None known.

### 5.2 Special hazards arising from the substance or mixture

**Hazards from the substance or mixture** : In a fire or if heated, a pressure increase will occur and the container may burst. 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

**Aliphatic carboxylic acid** : This material increases the risk of fire and may aid combustion.

### 5.3 Advice for firefighters

**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.

## SECTION 5: Firefighting measures

**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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

## SECTION 6: Accidental release measures

### 6.1 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. 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".

**6.2 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.

### 6.3 Methods and material for containment and cleaning up

**Small spill** : Stop leak if without risk. Move containers from spill area. 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. 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. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.

### 6.4 Reference to other sections

See Section 1 for emergency contact information.  
See Section 8 for information on appropriate personal protective equipment.  
See Section 13 for additional waste treatment information.

## SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 7.1 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 ingest. Avoid breathing vapour or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. 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

### 7.2 Conditions for safe storage, including any incompatibilities

#### Storage

: Store in accordance with local regulations. Store in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10). Store locked up. 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.

### 7.3 Specific end use(s)

#### Recommendations

: Not available.

#### Industrial sector specific solutions

: Not available.

## SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 8.1 Control parameters

#### Occupational exposure limits

Solvent naphtha (petroleum), heavy arom.

**Supplier/Manufacturer (Europe, 2015).**

EU HSPA (RCP Aromatic solvents 180 - 215): 151 mg/m<sup>3</sup> 8 hours.

Solvent naphtha (petroleum), heavy arom.

**Supplier/Manufacturer (Europe, 2015).**

EU HSPA (RCP Aromatic solvents 180 - 215): 151 mg/m<sup>3</sup> 8 hours.

naphthalene

**EU OEL (Europe, 1/2022). Notes: list of indicative occupational exposure limit values**

TWA: 10 ppm 8 hours.

TWA: 50 mg/m<sup>3</sup>, 0 times per shift, 8 hours.

#### Recommended monitoring procedures

: Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

#### DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
Hydrocarbons C10, Aromatics, <1% Naphthalene, [Solvent naphtha (petroleum), heavy arom.]	DNEL	Long term Dermal	12.5 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	151 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Dermal	7.5 mg/kg bw/day	Consumers	Systemic
	DNEL	Long term Inhalation	32 mg/m <sup>3</sup>	Consumers	Systemic
	DNEL	Long term Oral	7.5 mg/kg bw/day	Consumers	Systemic
	DNEL	Long term Oral	2.1 mg/kg bw/day	General population	Systemic
	DMEL	Long term Inhalation	3.25 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Inhalation	10.2 mg/m <sup>3</sup>	General population	Systemic
	DMEL	Long term Dermal	23.4 mg/kg bw/day	Workers	Systemic
	DMEL	Long term Dermal	42.4 mg/	General	Systemic

## SECTION 8: Exposure controls/personal protection

Hydrocarbons, C10, aromatics, >1% naphthalene [Solvent naphtha (petroleum), heavy arom.]	DNEL	Long term Dermal	kg bw/day 12.5 mg/kg bw/day	population Workers	Systemic
	DNEL	Long term Inhalation	151 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Dermal	7.5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	32 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Long term Oral	7.5 mg/kg bw/day	General population	Systemic
	DNEL	Long term Oral	0.03 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.28 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0.69 mg/m <sup>3</sup>	General population	Local
	DNEL	Long term Inhalation	0.69 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Long term Dermal	0.95 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	2.31 mg/m <sup>3</sup>	Workers	Local
	DNEL	Long term Inhalation	2.31 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Short term Oral	25.6 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	143.5 mg/m <sup>3</sup>	General population	Local
	DNEL	Short term Inhalation	160.23 mg/m <sup>3</sup>	Workers	Local
	DNEL	Short term Inhalation	226 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Short term Inhalation	384 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Dermal	3.57 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	25 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Inhalation	25 mg/m <sup>3</sup>	Workers	Local
	DNEL	Long term Dermal	3.57 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	25 mg/m <sup>3</sup>	Workers	Local
	DNEL	Long term Inhalation	25 mg/m <sup>3</sup>	Workers	Systemic
2,6-di-tert-butylphenol	DMEL	Long term Oral	1.67 mg/kg bw/day	General population [Human via the environment]	Systemic
	DMEL	Long term Dermal	2.77 mg/kg bw/day	Workers	Systemic
	DMEL	Long term Inhalation	19.6 mg/m <sup>3</sup>	Workers	Systemic
	DMEL	Long term Inhalation	5.8 mg/m <sup>3</sup>	General population [Human via the environment]	Systemic
	DNEL	Long term Oral	6.75 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	6.75 mg/kg bw/day	General population	Systemic

## SECTION 8: Exposure controls/personal protection

Amines, polyethylenopoly-, tetraethylenepentamine fraction	DNEL	Long term Dermal	11.25 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	20.9 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Long term Inhalation	70.61 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Short term Inhalation	6940 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Long term Dermal	0.74 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	1.29 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Short term Dermal	10 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Short term Inhalation	2071 mg/m <sup>3</sup>	General population [Consumers]	Systemic
	DNEL	Short term Oral	26 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Short term Oral	1.29 mg/cm <sup>2</sup>	General population [Consumers]	Local
	DNEL	Long term Dermal	0.32 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Inhalation	0.38 mg/m <sup>3</sup>	General population [Consumers]	Systemic
	DNEL	Long term Oral	0.53 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Long term Dermal	0.56 mg/cm <sup>2</sup>	General population [Consumers]	Local
	DNEL	Long term Inhalation	0.05 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Long term Oral	0.06 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0.08 mg/m <sup>3</sup>	General population	Local
	DNEL	Short term Oral	0.1 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	0.1 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	0.1 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0.19 mg/m <sup>3</sup>	Workers	Systemic
	DNEL	Short term Dermal	0.2 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	0.2 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	0.32 mg/m <sup>3</sup>	Workers	Local
	DNEL	Short term Inhalation	0.8 mg/m <sup>3</sup>	Workers	Local
	DNEL	Short term Inhalation	0.8 mg/m <sup>3</sup>	Workers	Systemic

PNECs

## SECTION 8: Exposure controls/personal protection

Product/ingredient name	Type	Compartment Detail	Value	Method Detail
naphthalene	PNEC	Fresh water	2.4 µg/l	-
	PNEC	Marine	0.24 µg/l	-
	PNEC	Sewage Treatment Plant	2.9 mg/l	-
	PNEC	Fresh water sediment	67.2 µg/kg dwt	-
	PNEC	Marine water sediment	67.2 µg/kg dwt	-
	PNEC	Soil	53.3 µg/kg dwt	-
	PNEC	Fresh water	0.45 µg/l	-
	PNEC	Marine	0.045 µg/l	-
	PNEC	Sediment	0.196 mg/kg dwt	-
	PNEC	Marine water sediment	0.0196 mg/kg dwt	-
2,6-di-tert-butylphenol	PNEC	Soil	38.9 mg/kg dwt	-
	PNEC	Sewage Treatment Plant	10 mg/l	-
	PNEC	Secondary Poisoning	6.67 mg/kg	-
	PNEC	Fresh water	6.8 µg/l	-
	PNEC	Marine	0.68 µg/l	-
Amines, polyethylenopoly-, tetraethylenepentamine fraction	PNEC	Sewage Treatment Plant	9.73 mg/l	-
	PNEC	Fresh water sediment	3.43 mg/kg dwt	-
	PNEC	Marine water sediment	0.343 mg/kg dwt	-
	PNEC	Soil	0.683 mg/kg dwt	-

### 8.2 Exposure controls

#### 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.

#### 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. Recommended: splash goggles

##### Skin protection

###### Hand protection

- Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. > 8 hours (breakthrough time): Viton®  
1 - 4 hours (breakthrough time): nitrile rubber

###### 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. Recommended: organic vapour filter (Type A)

## SECTION 8: Exposure controls/personal protection

**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.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

<b>Physical state</b>	: Liquid.
<b>Colour</b>	: Amber.
<b>Odour</b>	: Aromatic.
<b>Odour threshold</b>	: Not available.
<b>pH</b>	: Not applicable.
<b>Melting point/freezing point</b>	: Not applicable.
<b>Initial boiling point and boiling range</b>	: Lowest known value: 178 to 215°C (352.4 to 419°F)(Solvent naphtha (petroleum), heavy arom.). Weighted average: 215.28°C (419.5°F)
<b>Flash point</b>	: Closed cup: 66°C (150.8°F) [DIN EN ISO 2719]
<b>Evaporation rate</b>	: Highest known value: 0.05 (Solvent naphtha (petroleum), heavy arom.) Weighted average: 0.05 compared with butyl acetate
<b>Flammability (solid, gas)</b>	: Not available.
<b>Burning time</b>	: Not applicable.
<b>Burning rate</b>	: Not applicable.
<b>Upper/lower flammability or explosive limits</b>	: Greatest known range: Lower: 0.6% Upper: 7% (Solvent naphtha (petroleum), heavy arom.)
<b>Vapour pressure</b>	: Highest known value: 0.1 kPa (0.8 mm Hg) (at 20°C) (Solvent naphtha (petroleum), heavy arom.). Weighted average: 0.07 kPa (0.53 mm Hg) (at 20°C)
<b>Vapour density</b>	: Highest known value: 4.6 to 5.5 (Air = 1) (Solvent naphtha (petroleum), heavy arom.). Weighted average: 5.05 (Air = 1)
<b>Relative density</b>	: Not available.
<b>Density</b>	: 0.925 g/cm³ [15°C (59°F)]
<b>Solubility(ies)</b>	:
<b>Miscible with water</b>	: No.
<b>Partition coefficient: n-octanol/water</b>	: Not available.
<b>Auto-ignition temperature</b>	: Lowest known value: 362°C (683.6°F) (Aliphatic carboxylic acid.).
<b>Decomposition temperature</b>	: Not available.
<b>Viscosity</b>	: Kinematic (40°C (104°F)): 77 mm²/s (77 cSt)
<b>Explosive properties</b>	: Not available.
<b>Oxidising properties</b>	: Not available.
<b>Particle characteristics</b>	
<b>Median particle size</b>	: Not applicable.

### 9.2 Other information

Octamar™ LI-5 Plus

**SECTION 10: Stability and reactivity**

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

**10.2 Chemical stability** : The product is stable.

**10.3 Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

**10.4 Conditions to avoid** : No specific data.

**10.5 Incompatible materials** : Reactive or incompatible with the following materials:  
oxidising materials

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

**SECTION 11: Toxicological information****11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**Acute toxicity

Product/ingredient name	Test	Species	Result type	Dose
Hydrocarbons C10, Aromatics, <1% Naphthalene, [Solvent naphtha (petroleum), heavy arom.]	-	Rat	LC50 Inhalation Vapour	>590 mg/m <sup>3</sup>
Hydrocarbons, C10, aromatics, >1% naphthalene [Solvent naphtha (petroleum), heavy arom.]	-	Rabbit	LD50 Dermal	>2 mL/kg
	-	Rabbit	LD50 Dermal	>2000 mg/kg
	-	Rat	LDLo Oral	5 mL/kg
	-	Rat	LC50 Inhalation Vapour	>590 mg/m <sup>3</sup>
naphthalene	-	Rabbit	LD50 Dermal	>2 mL/kg
	-	Rabbit	LD50 Dermal	>2000 mg/kg
	-	Rat	LDLo Oral	5 mL/kg
	-	Rat	LC50 Inhalation Vapour	>340 mg/m <sup>3</sup>
2,6-di-tert-butylphenol	-	Rabbit	LD50 Dermal	>2000 mg/kg
	-	Rat	LD50 Oral	490 mg/kg
	-	Rabbit	LD50 Dermal	>10 g/kg
	-	Rabbit	LD50 Dermal	>10000 mg/kg
	-	Rat	LD50 Oral	1320 mg/kg
	-	Rat	LD50 Oral	>5000 mg/kg
	OECD 401 Acute Oral Toxicity	Rat - Male, Female	LD50 Oral	>5000 mg/kg
Amines, polyethylenopoly-, tetraethylenepentamine fraction	-	Rat	LD50 Dermal	1260 mg/kg
maleic anhydride	-	Rat	LD50 Oral	2100 to 3990 mg/kg
	-	Rabbit	LD50 Dermal	2620 mg/kg
	-	Rat	LD50 Oral	400 mg/kg

Acute toxicity estimates (ATE)

Route	ATE value
Oral	24845.04 mg/kg

**SECTION 11: Toxicological information**Irritation/Corrosion

Product/ingredient name	Test	Species	Result	
Hydrocarbons C10, Aromatics, <1% Naphthalene, [Solvent naphtha (petroleum), heavy arom.]	-	Mammal - species unspecified	Eyes - Mild irritant	-
Hydrocarbons, C10, aromatics, >1% naphthalene [Solvent naphtha (petroleum), heavy arom.]	-	Rabbit Mammal - species unspecified	Skin - Mild irritant Eyes - Mild irritant	-
2,6-di-tert-butylphenol	OECD 405 Acute Eye Irritation/Corrosion OECD 404 Acute Dermal Irritation/Corrosion	Rabbit Rabbit	Skin - Mild irritant Eyes - Cornea opacity	- 0
Amines, polyethylenepoly-, tetraethylenepentamine fraction	-	Rabbit	Skin - Erythema/ Eschar	2
maleic anhydride	-	Rat Rabbit	Skin - Moderate irritant Eyes - Moderate irritant	- -
	-	Rabbit	Skin - Severe irritant Eyes - Severe irritant	- -

Sensitisation

Product/ingredient name	Test	Species	Result	
2,6-di-tert-butylphenol	OECD 406 Skin Sensitization	Guinea pig	Not sensitizing	-
Amines, polyethylenepoly-, tetraethylenepentamine fraction	-	Guinea pig	Sensitising	-

Potential chronic health effects

Product/ingredient name	Test	Species	Result	Dose
2,6-di-tert-butylphenol	OECD 407 Repeated Dose 28-day Oral Toxicity Study in Rodents	Rat - Male, Female	Sub-acute NOAEL Oral	100 mg/kg
	OECD 407 Repeated Dose 28-day Oral Toxicity Study in Rodents	Rat - Male, Female	Sub-acute NOEL Oral	15 mg/kg
Amines, polyethylenepoly-, tetraethylenepentamine fraction	-	Rabbit	Sub-chronic LOAEL Dermal	50 mg/kg
	-	Rat	Sub-chronic LOAEL Oral	43 mg/kg

Mutagenicity

Product/ingredient name	Test	Experiment	Result
2,6-di-tert-butylphenol	-	Experiment: In vitro Subject: Bacteria Metabolic activation: With	Negative -
	OECD 473 In vitro Mammalian Chromosomal Aberration Test	Experiment: In vitro Subject: Mammalian-Animal	Negative OECD 473 In vitro Mammalian Chromosomal Aberration Test
Amines, polyethylenepoly-, tetraethylenepentamine	-	Experiment: In vivo Subject: Mammalian-Animal	Negative -

**SECTION 11: Toxicological information**

fraction

**Reproductive toxicity**

Product/ingredient name	Test	Species	Result	Dose
2,6-di-tert-butylphenol	OECD 421 Reproduction/Developmental Toxicity Screening Test	Rat	-	Oral
Amines, polyethylenopoly-, tetraethylenepentamine fraction	-	Mammal - species unspecified	-	Dermal: 161 NOAEL
	-	Mammal - species unspecified		Oral: 970 NOAEL

**Specific target organ toxicity (single exposure)**

Product/ingredient name	Category	Route of exposure	Target organs
Hydrocarbons C10, Aromatics, <1% Naphthalene, [Solvent naphtha (petroleum), heavy arom.]	Category 3	-	Narcotic effects
Hydrocarbons, C10, aromatics, >1% naphthalene [Solvent naphtha (petroleum), heavy arom.]	Category 3	-	Narcotic effects

**Information on likely routes of exposure** : Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

**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.

**Skin contact** : Defatting to the skin. May cause skin dryness and irritation.

**Ingestion** : Can cause central nervous system (CNS) depression.

**Symptoms related to the physical, chemical and toxicological characteristics**

**Eye contact** : No specific data.

**Inhalation** : Adverse symptoms may include the following:  
nausea or vomiting  
headache  
drowsiness/fatigue  
dizziness/vertigo  
unconsciousness

**Skin contact** : Adverse symptoms may include the following:  
irritation  
dryness  
cracking

**Ingestion** : No specific data.

**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.

## SECTION 11: Toxicological information

<b>General</b>	: Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.
<b>Carcinogenicity</b>	: Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.
<b>Mutagenicity</b>	: No known significant effects or critical hazards.
<b>Teratogenicity</b>	: No known significant effects or critical hazards.
<b>Developmental effects</b>	: No known significant effects or critical hazards.
<b>Fertility effects</b>	: No known significant effects or critical hazards.

### 11.2 Information on other hazards

#### 11.2.1 Endocrine disrupting properties

No known significant effects or critical hazards.

#### 11.2.2 Other information

Not available.

## SECTION 12: Ecological information

### 12.1 Toxicity

Product/ingredient name	Test	Species	Exposure	Result
Hydrocarbons C10, Aromatics, <1% Naphthalene, [Solvent naphtha (petroleum), heavy arom.]	-	Algae	72 hours	Acute EC50 1 to 3 mg/l
	-	Daphnia	48 hours	Acute EC50 3 to 10 mg/l
	-	Fish	96 hours	Acute LC50 2 to 5 mg/l
	-	Algae	72 hours	Acute EC50 1 to 3 mg/l
	-	Daphnia	48 hours	Acute EC50 3 to 10 mg/l
	-	Fish	96 hours	Acute LC50 2 to 5 mg/l
	-	Daphnia - Water flea - <i>Daphnia magna</i>	48 hours	Acute EC50 1.96 mg/l
	-	Crustaceans - Daggerblade grass shrimp - <i>Palaemonetes pugio</i>	48 hours	Fresh water
	-	Fish - Oncorhynchus mykiss	96 hours	Acute LC50 2350 µg/l
	-	Crustaceans - Fiddler crab - <i>Uca pugnax</i> - Adult	3 weeks	Marine water
naphthalene	-	Fish - Mozambique tilapia - <i>Oreochromis mossambicus</i>	60 days	Chronic NOEC 1.5 mg/l
	-	Algae	72 hours	Fresh water
	-	Daphnia	48 hours	Acute EC50 6.8 mg/l
	-	Fish	96 hours	Acute EC50 24.1 mg/l
	-	Algae	-	Acute LC50 420 mg/l
Amines, polyethylenepoly-, tetraethylenepentamine fraction	-	Fish - Western mosquitofish -	96 hours	Acute NOEC 0.5 mg/l
	-		-	Acute LC50 230 ppm
maleic anhydride	-		-	Fresh water
	-		-	

**SECTION 12: Ecological information**

		<i>Gambusia affinis</i> - Adult		
--	--	------------------------------------	--	--

**12.2 Persistence and degradability**

Product/ingredient name	Test	Result
2,6-di-tert-butylphenol	OECD 302C Inherent Biodegradability: Modified MITI Test (II) EPA Anaerobic	12 to 24 % - Not readily - 28 days 9 % - Not readily - 28 days

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Hydrocarbons C10, Aromatics, <1% Naphthalene, [Solvent naphtha (petroleum), heavy arom.]	-	-	Inherent
Hydrocarbons, C10, aromatics, >1% naphthalene [Solvent naphtha (petroleum), heavy arom.]	-	-	Inherent
2,6-di-tert-butylphenol	-	-	Not readily
Amines, polyethylenepoly-, tetraethylenepentamine fraction	-	-	Not readily

**12.3 Bioaccumulative potential**

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Hydrocarbons C10, Aromatics, <1% Naphthalene, [Solvent naphtha (petroleum), heavy arom.]	2.8 to 6.5	<100	Low
Hydrocarbons, C10, aromatics, >1% naphthalene [Solvent naphtha (petroleum), heavy arom.]	-	<100	Low
naphthalene	3.4	36.5 to 168	Low
2,6-di-tert-butylphenol	4.5	660	High
Amines, polyethylenepoly-, tetraethylenepentamine fraction	-3.16	-	Low
maleic anhydride	-2.78	-	Low

**12.4 Mobility in soil**

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Mobility** : Not available.

**12.5 Results of PBT and vPvB assessment**

**PBT** : Not applicable.

**vPvB** : Not applicable.

**12.6 Endocrine disrupting properties**

No known significant effects or critical hazards.

Octamar™ LI-5 Plus

## SECTION 12: Ecological information

### 12.7 Other adverse effects

No known significant effects or critical hazards.

## SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 13.1 Waste treatment methods

#### Product

##### **Methods of disposal**

- 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.

##### **Hazardous waste**

- The classification of the product may meet the criteria for a hazardous waste.

#### Packaging

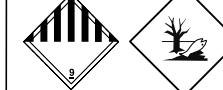
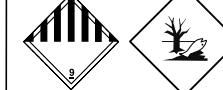
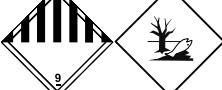
##### **Methods of disposal**

- The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

##### **Special precautions**

- 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. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
14.1 UN number	UN3082	UN3082	UN3082	UN3082
14.2 UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Solvent naphtha (petroleum), heavy arom., naphthalene)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Solvent naphtha (petroleum), heavy arom., naphthalene)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Solvent naphtha (petroleum), heavy arom., naphthalene). Marine pollutant (Solvent naphtha (petroleum), heavy arom., naphthalene)	Environmentally hazardous substance, liquid, n.o.s. (Solvent naphtha (petroleum), heavy arom., naphthalene)
14.3 Transport hazard class(es)	9  	9  	9  	9  
14.4 Packing group	III	III	III	III
14.5 Environmental hazards	Yes.	Yes.	Yes.	Yes.

## SECTION 14: Transport information

<b>Additional information</b>	<p>This product is not regulated as a dangerous good when transported in sizes of <math>\leq 5</math> L or <math>\leq 5</math> kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.</p> <p><b>Hazard identification</b> number 90</p> <p><b>Limited quantity</b> 5 L</p> <p><b>Special provisions</b> 274, 335, 601, 375</p> <p><b>Tunnel code</b> (-)</p>	<p>This product is not regulated as a dangerous good when transported in sizes of <math>\leq 5</math> L or <math>\leq 5</math> kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.</p> <p><b>Special provisions</b> 274, 335, 375, 601</p>	<p>This product is not regulated as a dangerous good when transported in sizes of <math>\leq 5</math> L or <math>\leq 5</math> kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8.</p> <p><b>Emergency schedules</b> F-A, S-F</p> <p><b>Special provisions</b> 274, 335, 969</p>	
<b>14.6 Special precautions for user</b>				
<b>14.7 Maritime transport in bulk according to IMO instruments</b>				

## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

#### EU Regulation (EC) No. 1907/2006 (REACH)

##### Annex XIV - List of substances subject to authorisation

##### Annex XIV

None of the components are listed.

##### Substances of very high concern

None of the components are listed.

#### Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name	%	Designation [Usage]
Octamar™ LI-5 Plus	$\geq 90$	3

**Labelling** : Not applicable.

#### Other EU regulations

**VOC** : The provisions of Directive 2004/42/EC on VOC apply to this product. Refer to the product label and/or technical data sheet for further information.

**VOC for Ready-for-Use Mixture** : Not available.

## SECTION 15: Regulatory information

**Industrial emissions** : Not listed

**(integrated pollution prevention and control) -**

Air

**Industrial emissions** : Not listed

**(integrated pollution prevention and control) -**

Water

**Explosive precursors** : Not applicable.

### Seveso Directive - Reporting thresholds (in tonnes)

#### Danger criteria

Category	Notification and MAPP threshold	Safety report threshold
E2	200	500

#### Ozone depleting substances (1005/2009/EU)

Not listed.

#### Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

#### Persistent Organic Pollutants

Not listed.

#### National regulations

**Chemical Weapons** :Not listed

**Convention List Schedule I**

**Chemicals**

**Chemical Weapons** :Not listed

**Convention List Schedule II**

**Chemicals**

**Chemical Weapons** :Not listed

**Convention List Schedule III**

**Chemicals**

#### International lists

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

**Canada inventory** :All components are listed or exempted.

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

**EU REACH Status** :Please contact your supplier for information on the REACH status of this material.

**Japan inventory** :All components are listed or exempted.

**Korea REACH Status** :Please contact your supplier for information on the REACH status of this material.

**New Zealand Inventory of Chemicals (NZIoC)** :All components are listed or exempted.

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

**Taiwan REACH Status** :Please contact your supplier for information on the REACH status of this material.

**Turkey REACH Status** :Please contact your supplier for information on the REACH status of this material.

**United States inventory (TSCA 8b)** :All components are listed or exempted.

## SECTION 15: Regulatory information

<b>15.2 Chemical safety assessment</b>	: This product contains substances for which Chemical Safety Assessments are still required. Not to be used for hydraulic fracking applications
--	--

## SECTION 16: Other information

<b>Abbreviations and acronyms</b>	: ATE = Acute Toxicity Estimate CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008] DNEL = Derived No Effect Level EUH statement = CLP-specific Hazard statement PNEC = Predicted No Effect Concentration RRN = REACH Registration Number
-----------------------------------	---

### Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Carc. 2, H351	Calculation method
STOT SE 3, H336	Calculation method
Aquatic Chronic 2, H411	Calculation method

<b>Full text of abbreviated H statements</b>	: H302 Harmful if swallowed. H304 May be fatal if swallowed and enters airways. H312 Harmful in contact with skin. H314 Causes severe skin burns and eye damage. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness. H351 Suspected of causing cancer. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. H411 Toxic to aquatic life with long lasting effects. EUH066 Repeated exposure may cause skin dryness or cracking.
--	--

<b>Full text of classifications [CLP/GHS]</b>	: Acute Tox. 4 ACUTE TOXICITY - Category 4 Aquatic Acute 1 SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1 Aquatic Chronic 1 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1 Aquatic Chronic 2 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2 Asp. Tox. 1 ASPIRATION HAZARD - Category 1 Carc. 2 CARCINOGENICITY - Category 2 Eye Irrit. 2 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2 Skin Corr. 1B SKIN CORROSION/IRRITATION - Category 1B Skin Irrit. 2 SKIN CORROSION/IRRITATION - Category 2 Skin Sens. 1 SKIN SENSITISATION - Category 1 STOT SE 3 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3
---	---

**Date of printing** : 2024-04-29

**Date of issue/ Date of revision** : 4/29/2024

**Date of previous issue** : 4/29/2024

**Version** : 3.04

### **Emergency contact numbers for local language support in Asia Pacific region**

Country information	Languages supported	Telephone no.:	Location
<b>Date of issue/Date of revision</b> : 4/29/2024			20/21

**SECTION 16: Other information**

Australia	English	+61 2 8014 4558	Australia
Bangladesh	Bengali, English	+65 3158 1200	Singapore
China	Mandarin, English	400 120 6011	Beijing China
India	Hindi, English	+65 3158 1198	Singapore
India ( local toll free number )	Hindi, English	000800 100 7479	India
Indonesia (local toll free number)	Bahasa Indonesian, English	00780 3011 0293	Indonesia
Japan	Japanese, English	+81 3 4578 9341	Japan
Korea	Korean, English	+65 3158 1285	Singapore
Malaysia	Bahasa Malaysian, English	+60 3 6207 4347	Malaysia
New Zealand	English	+64 9929 1483	New Zealand
Pakistan	Urdu, English	+65 3158 1329	Singapore
Philippines	Tagalog, English	+63 2 8231 2149	Singapore
Sri Lanka	Sinhalese, English	+65 3158 1195	Singapore
Thailand (local toll free number)	Thai, English	001800 1 2066 6751	Thailand
Vietnam	Vietnamese, English	+65 3158 1255	Singapore

**Notice to reader**

The information in this Safety Data Sheet is based on the present state of knowledge and current legislation. It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications. The product should not be used for purposes other than those shown in Section 1 without first referring to the supplier and obtaining written handling instructions. As the specific conditions of use of the product are outside the supplier's control, the user is responsible for ensuring that the requirements of relevant legislation are complied with. The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation.