

# SAFETY DATA SHEET

According to REACH etc. (Amendment etc.) (EU Exit) Regulations  
2019 - GB



## PETAMO GHY 133 N (H)

Version	Revision Date:	Date of last issue: 08.09.2021	Print Date:
3.6	11.10.2021	Date of first issue: 17.07.2013	11.10.2021

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

#### 1.1 Product identifier

Product name : PETAMO GHY 133 N (H)  
Article-No. : 094148

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

Use of the Sub-  
stance/Mixture : Grease  
Recommended restrictions : Restricted to professional users.  
on use

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

Company : Klüber Lubrication München  
Geisenhausenerstr. 7  
81379 München  
Deutschland  
Tel: +49 (0) 89 7876 0  
Fax: +49 (0) 89 7876 333  
info@klueber.com

E-mail address of person  
responsible for the SDS : mcm@klueber.com  
Material Compliance Management

National contact : Klüber Lubrication Great Britain Limited  
Unit 10 Pennine Business Park  
Longbow Close  
Huddersfield  
West Yorkshire HD2 1GQ  
Great Britain  
Tel: +44-1422-205115  
Fax: +44-1422-206073  
sales@uk.klueber.com

#### 1.4 Emergency telephone number

Emergency telephone num-  
ber : +49 89 7876 700 (24 hrs)

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## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

#### Classification (REGULATION (EC) No 1272/2008)

Long-term (chronic) aquatic hazard, Category 2 H411: Toxic to aquatic life with long lasting effects.

### 2.2 Label elements

#### Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Hazard statements : H411 Toxic to aquatic life with long lasting effects.

Precautionary statements :

#### Prevention:

P273 Avoid release to the environment.

#### Response:

P391 Collect spillage.

#### Additional Labelling

EUH208 Contains Condensation products of fatty acids, tall oil with 2-amino-2-ethylpropanediol; May produce an allergic reaction.

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

Chemical nature : Mineral oil.  
Synthetic hydrocarbon oil  
polyurea

#### Components

Chemical name	CAS-No. EC-No.	Classification	specific concentration limit	Concentration (% w/w)
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	Index-No. Registration number		M-Factor Notes	
reaction product of diphenylmethanediisocyanate, octylamine, oleylamine and cyclohexylamine (1:1.58:0.32:0.097)	430-980-9	Aquatic Chronic4; H413		$\geq 2.5 - < 10$
Phenol, isopropylated, phosphate (3:1)	68937-41-7 273-066-3	Repr.2; H361 STOT RE2; H373 Aquatic Chronic1; H410	M-Factor: /10	$\geq 1 - < 2.5$
Condensation products of fatty acids, tall oil with 2-amino-2-ethylpropanediol	946-010-7	Skin Sens.1; H317		$\geq 0.1 - < 1$
triphenyl phosphate	115-86-6 204-112-2	Aquatic Acute1; H400 Aquatic Chronic2; H411	M-Factor: 1/1	$\geq 0.25 - < 1$

For explanation of abbreviations see section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

- If inhaled : Obtain medical attention.  
Remove person to fresh air. If signs/symptoms continue, get medical attention.  
Keep patient warm and at rest.  
If unconscious, place in recovery position and seek medical advice.  
Keep respiratory tract clear.  
If breathing is irregular or stopped, administer artificial respiration.
- In case of skin contact : Take off all contaminated clothing immediately.  
Get medical attention immediately if irritation develops and persists.  
Wash clothing before reuse.  
Thoroughly clean shoes before reuse.  
Wash off immediately with plenty of water.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids,

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for at least 10 minutes.  
If eye irritation persists, consult a specialist.

If swallowed : Move the victim to fresh air.  
If unconscious, place in recovery position and seek medical advice.  
Keep respiratory tract clear.  
Do not induce vomiting without medical advice.  
Obtain medical attention.  
Never give anything by mouth to an unconscious person.

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

Symptoms : Allergic appearance  
Risks : May cause an allergic skin reaction.

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

Treatment : The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.  
Unsuitable extinguishing media : High volume water jet

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

Hazardous combustion products : Carbon oxides  
Nitrogen oxides (NO<sub>x</sub>)  
Sulphur oxides  
Oxides of phosphorus

### 5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment. Exposure to decomposition products may be a hazard to health.  
Further information : Standard procedure for chemical fires. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

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### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Evacuate personnel to safe areas.  
Use the indicated respiratory protection if the occupational exposure limit is exceeded and/or in case of product release (dust).  
Do not breathe vapours, aerosols.  
Refer to protective measures listed in sections 7 and 8.

#### 6.2 Environmental precautions

Environmental precautions : Do not allow contact with soil, surface or ground water.  
If the product contaminates rivers and lakes or drains inform respective authorities.

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

Methods for cleaning up : Clean up promptly by sweeping or vacuum.  
Keep in suitable, closed containers for disposal.

#### 6.4 Reference to other sections

For personal protection see section 8.

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Advice on safe handling : Avoid contact with skin and eyes.  
For personal protection see section 8.  
Persons with a history of skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.  
Smoking, eating and drinking should be prohibited in the application area.  
Wash hands and face before breaks and immediately after handling the product.  
Do not get in eyes or mouth or on skin.  
Do not get on skin or clothing.  
Do not ingest.  
Do not repack.  
These safety instructions also apply to empty packaging which may still contain product residues.  
Keep container closed when not in use.

Hygiene measures : Wash face, hands and any exposed skin thoroughly after handling.

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

Requirements for storage areas and containers : Store in original container. Keep container closed when not in use. Keep in a dry, cool and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store in accordance with the particular national regulations. Keep in properly labelled containers.

### 7.3 Specific end use(s)

Specific use(s) : Specific instructions for handling, not required.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
triphenyl phosphate	115-86-6	TWA	3 mg/m <sup>3</sup>	GB EH40 (2005-04-06)
		STEL	6 mg/m <sup>3</sup>	GB EH40 (2005-04-06)

#### Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
residual oils (petroleum), hydrotreated	Workers	Inhalation	Long-term systemic effects	2.7 mg/m <sup>3</sup>
	Workers	Inhalation	Acute systemic effects	5.6 mg/m <sup>3</sup>
	Workers	Skin contact	Long-term systemic effects	1 mg/kg
O,O,O-triphenyl phosphorothioate	Workers	Inhalation	Long-term systemic effects	1.39 mg/m <sup>3</sup>
	Workers	Skin contact	Long-term systemic effects	0.4 mg/kg
Phenol, isopropylated, phosphate (3:1)	Workers	Inhalation	Long-term systemic effects	0.145 mg/m <sup>3</sup>
	Workers	Inhalation	Acute systemic effects	700 mg/m <sup>3</sup>
	Workers	Skin contact	Long-term systemic effects	0.416 mg/kg bw/day
	Workers	Skin contact	Acute systemic effects	2000 mg/kg bw/day
	Workers	Skin contact	Acute local effects	16 mg/cm <sup>2</sup>

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Condensation products of fatty acids, tall oil with 2-amino-2-ethylpropanediol	Workers	Dermal	Long-term systemic effects	8.33 mg/kg bw/day
triphenyl phosphate	Workers	Inhalation	Long-term systemic effects	5.2 mg/m <sup>3</sup>
	Workers	Skin contact	Long-term systemic effects	5.55 mg/kg bw/day

### Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
O,O,O-triphenyl phosphorothioate	Sewage treatment plant	1 mg/l
	Soil	2.37 mg/l
Phenol, isopropylated, phosphate (3:1)	Fresh water	0 mg/l
	Intermittent use/release	0.015 mg/l
	Marine water	0 mg/l
	Sewage treatment plant	100 mg/kg
	Fresh water sediment	0.185 mg/kg dry weight (d.w.)
	Marine sediment	0.018 mg/kg dry weight (d.w.)
	Soil	2.5 mg/kg dry weight (d.w.)
triphenyl phosphate	Oral	1.85 mg/kg
	Fresh water	0.004 mg/l
	Intermittent use/release	0.003 mg/l
	Marine water	0.0004 mg/l
	Sewage treatment plant	5 mg/l
	Fresh water sediment	1.103 mg/kg dry weight (d.w.)
	Marine sediment	0.11 mg/kg dry weight (d.w.)
	Soil	0.218 mg/kg dry weight (d.w.)
	Oral	16.667 mg/kg

## 8.2 Exposure controls

### Engineering measures

Handle only in a place equipped with local exhaust (or other appropriate exhaust).

### Personal protective equipment

Eye protection : Safety glasses with side-shields

### Hand protection

Material : Nitrile rubber  
Break through time : > 10 min  
Protective index : Class 1

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Remarks : Wear protective gloves. The break through time depends amongst other things on the material, the thickness and the type of glove and therefore has to be measured for each case.  
The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

Respiratory protection : Not required; except in case of aerosol formation.

Filter type : Filter type P

Protective measures : The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.  
Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Appearance : paste

Colour : brown

Odour : characteristic

Odour Threshold : No data available

pH : Not applicable

Melting point/range : No data available

Boiling point/boiling range : No data available

Flash point : Not applicable

Evaporation rate : No data available

Flammability (solid, gas) : Combustible Solids

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Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower flammability limit : No data available

Vapour pressure : < 0.001 hPa (20 °C)

Relative vapour density : No data available

Relative density : 0.900 (20 °C)  
Reference substance: Water  
The value is calculated

Density : 0.90 g/cm<sup>3</sup>  
(20 °C)

Bulk density : No data available

Solubility(ies)

Water solubility : insoluble

Solubility in other solvents : No data available

Partition coefficient: n-octanol/water : No data available

Auto-ignition temperature : No data available

Decomposition temperature : No data available

Viscosity

Viscosity, dynamic : No data available

Viscosity, kinematic : Not applicable

Explosive properties : Not explosive

Oxidizing properties : No data available

### 9.2 Other information

Sublimation point : No data available

Self-ignition : No data available

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### SECTION 10: Stability and reactivity

#### 10.1 Reactivity

No hazards to be specially mentioned.

#### 10.2 Chemical stability

Stable under normal conditions.

#### 10.3 Possibility of hazardous reactions

Hazardous reactions : No dangerous reaction known under conditions of normal use.

#### 10.4 Conditions to avoid

Conditions to avoid : No conditions to be specially mentioned.

#### 10.5 Incompatible materials

Materials to avoid : No materials to be especially mentioned.

#### 10.6 Hazardous decomposition products

No decomposition if stored and applied as directed.

### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

##### Acute toxicity

##### Product:

Acute oral toxicity : Remarks: This information is not available.

Acute inhalation toxicity : Remarks: This information is not available.

Acute dermal toxicity : Symptoms: Redness, Local irritation

##### Components:

##### **reaction product of diphenylmethanediisocyanate, octylamine, oleylamine and cyclohexylamine (1:1.58:0.32:0.097):**

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg  
Method: OECD Test Guideline 423  
GLP: yes  
Assessment: The substance or mixture has no acute oral toxicity

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg  
Method: OECD Test Guideline 402

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Assessment: The substance or mixture has no acute dermal toxicity

### Phenol, isopropylated, phosphate (3:1):

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 200 mg/l  
Exposure time: 1 h  
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rabbit): > 10,000 mg/kg  
GLP: no

### Condensation products of fatty acids, tall oil with 2-amino-2-ethylpropanediol:

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg  
Method: OECD Test Guideline 425  
Assessment: The substance or mixture has no acute oral toxicity

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg  
Method: OECD Test Guideline 402  
Assessment: The substance or mixture has no acute dermal toxicity

### triphenyl phosphate:

Acute oral toxicity : LD50 (Rat): > 20,000 mg/kg  
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): > 200 mg/l  
Exposure time: 1 h  
Test atmosphere: dust/mist  
Method: OECD Test Guideline 403  
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rabbit): > 10,000 mg/kg  
Method: OECD Test Guideline 402

### Skin corrosion/irritation

#### Product:

Remarks : This information is not available.

#### Components:

reaction product of diphenylmethanediisocyanate, octylamine, oleylamine and cyclohexylamine (1:1.58:0.32:0.097):

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Species : Rabbit  
Assessment : No skin irritation  
Method : OECD Test Guideline 404  
Result : No skin irritation  
GLP : yes

### Phenol, isopropylated, phosphate (3:1):

Species : Rabbit  
Exposure time : 72 h  
Assessment : No skin irritation  
Result : No skin irritation  
GLP : no

### Condensation products of fatty acids, tall oil with 2-amino-2-ethylpropanediol:

Species : reconstructed human epidermis (RhE)  
Assessment : No skin irritation  
Result : No skin irritation

### triphenyl phosphate:

Species : Rabbit  
Assessment : No skin irritation  
Method : OECD Test Guideline 404  
Result : No skin irritation  
GLP : yes

### Serious eye damage/eye irritation

#### Product:

Remarks : This information is not available.

#### Components:

### reaction product of diphenylmethanediisocyanate, octylamine, oleylamine and cyclohexylamine (1:1.58:0.32:0.097):

Species : Rabbit  
Assessment : No eye irritation  
Method : OECD Test Guideline 405  
Result : No eye irritation  
GLP : yes

### Phenol, isopropylated, phosphate (3:1):

Species : Rabbit  
Assessment : No eye irritation  
Result : No eye irritation  
GLP : no

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### Condensation products of fatty acids, tall oil with 2-amino-2-ethylpropanediol:

Species : Rabbit  
Assessment : No eye irritation  
Result : No eye irritation

### triphenyl phosphate:

Species : Rabbit  
Assessment : No eye irritation  
Method : OECD Test Guideline 405  
Result : No eye irritation  
GLP : yes

### Respiratory or skin sensitisation

#### Product:

Remarks : This information is not available.

#### Components:

### reaction product of diphenylmethanediisocyanate, octylamine, oleylamine and cyclohexylamine (1:1.58:0.32:0.097):

Test Type : Maximisation Test  
Species : Guinea pig  
Assessment : Does not cause skin sensitisation.  
Method : OECD Test Guideline 406  
Result : Does not cause skin sensitisation.  
GLP : yes

### Phenol, isopropylated, phosphate (3:1):

Species : Mouse  
Assessment : Did not cause sensitisation on laboratory animals.  
Method : OECD Test Guideline 429  
Result : Did not cause sensitisation on laboratory animals.  
GLP : yes

### Condensation products of fatty acids, tall oil with 2-amino-2-ethylpropanediol:

Assessment : May cause sensitisation by skin contact.  
Result : May cause sensitisation by skin contact.

### triphenyl phosphate:

Species : Guinea pig  
Assessment : Does not cause skin sensitisation.  
Method : OECD Test Guideline 406

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Result : Does not cause skin sensitisation.  
GLP : yes

### Germ cell mutagenicity

#### Product:

Genotoxicity in vitro : Remarks: No data available

Genotoxicity in vivo : Remarks: No data available

#### Components:

#### **reaction product of diphenylmethanediisocyanate, octylamine, oleylamine and cyclohexylamine (1:1.58:0.32:0.097):**

Genotoxicity in vitro : Test Type: Ames test  
Test system: Salmonella typhimurium  
Method: OECD Test Guideline 471  
Result: negative

Test Type: Chromosome aberration test in vitro  
Test system: Chinese hamster cells  
Method: OECD Test Guideline 473  
Result: negative

Germ cell mutagenicity- Assessment : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

#### **Condensation products of fatty acids, tall oil with 2-amino-2-ethylpropanediol:**

Genotoxicity in vitro : Remarks: In vitro tests did not show mutagenic effects

#### **triphenyl phosphate:**

Genotoxicity in vitro : Test Type: reverse mutation assay  
Test system: Salmonella typhimurium  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 471  
Result: negative

Germ cell mutagenicity- Assessment : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

### Carcinogenicity

#### Product:

Remarks : No data available

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### Components:

#### **triphenyl phosphate:**

Carcinogenicity - Assessment : No evidence of carcinogenicity in animal studies.

### **Reproductive toxicity**

#### Product:

Effects on fertility : Remarks: No data available

Effects on foetal development : Remarks: No data available

### Components:

#### **Phenol, isopropylated, phosphate (3:1):**

Reproductive toxicity - Assessment : Some evidence of adverse effects on sexual function and fertility, and/or on development, based on animal experiments.  
Some evidence of adverse effects on sexual function and fertility, and/or on development, based on animal experiments.

#### **Condensation products of fatty acids, tall oil with 2-amino-2-ethylpropanediol:**

Reproductive toxicity - Assessment : Animal testing did not show any effects on fertility.

#### **triphenyl phosphate:**

Effects on foetal development : Species: Rabbit  
Application Route: Oral  
General Toxicity Maternal: NOAEL:  $\geq$  200 mg/kg body weight  
Teratogenicity: NOAEL:  $\geq$  200 mg/kg body weight  
Developmental Toxicity: NOAEL:  $\geq$  200 mg/kg body weight  
Embryo-foetal toxicity: NOAEL:  $\geq$  200 mg/kg body weight  
Method: OECD Test Guideline 414  
Result: No effects on fertility and early embryonic development were detected.

Reproductive toxicity - Assessment : No toxicity to reproduction  
No effects on or via lactation

### **STOT - single exposure**

#### Components:

#### **reaction product of diphenylmethanediisocyanate, octylamine, oleylamine and cyclohexylamine (1:1.58:0.32:0.097):**

Assessment : The substance or mixture is not classified as specific target

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organ toxicant, single exposure.

### STOT - repeated exposure

#### Components:

**reaction product of diphenylmethanediisocyanate, octylamine, oleylamine and cyclohexylamine (1:1.58:0.32:0.097):**

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

#### **Phenol, isopropylated, phosphate (3:1):**

Exposure routes : Ingestion  
Target Organs : ovaries, Testes, Liver, Adrenal gland  
Assessment : The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.

### Repeated dose toxicity

#### Product:

Remarks : This information is not available.

#### Components:

**reaction product of diphenylmethanediisocyanate, octylamine, oleylamine and cyclohexylamine (1:1.58:0.32:0.097):**

Species : Rat  
NOAEL : 1,000 mg/kg  
Application Route : Oral  
Method : OECD Test Guideline 407

#### **triphenyl phosphate:**

Species : Rat  
NOAEL : 105 mg/kg  
Application Route : Oral  
Method : OECD Test Guideline 408

Species : Rabbit  
NOAEL : 1,000 mg/kg  
Application Route : Dermal

### Aspiration toxicity

#### Product:

This information is not available.

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### Components:

**reaction product of diphenylmethanediisocyanate, octylamine, oleylamine and cyclohexylamine (1:1.58:0.32:0.097):**

No aspiration toxicity classification

**Phenol, isopropylated, phosphate (3:1):**

No aspiration toxicity classification

**triphenyl phosphate:**

No aspiration toxicity classification

### **Further information**

#### Product:

Remarks : Information given is based on data on the components and the toxicology of similar products.

## SECTION 12: Ecological information

### 12.1 Toxicity

#### Product:

Toxicity to fish : Remarks: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Toxicity to daphnia and other aquatic invertebrates : Remarks: No data available

Toxicity to algae/aquatic plants : Remarks: No data available

Toxicity to microorganisms : Remarks: No data available

#### Components:

**reaction product of diphenylmethanediisocyanate, octylamine, oleylamine and cyclohexylamine (1:1.58:0.32:0.097):**

Toxicity to fish : LC50 (Danio rerio (zebra fish)): > 100 mg/l  
Exposure time: 96 h  
Test Type: static test  
Method: OECD Test Guideline 203  
GLP: yes

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- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l  
Exposure time: 48 h  
Test Type: static test  
Method: OECD Test Guideline 202  
GLP: yes
- Toxicity to algae/aquatic plants : EC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l  
Exposure time: 72 h  
Test Type: static test  
Method: OECD Test Guideline 201  
GLP: yes
- Toxicity to microorganisms : EC50 (activated sludge): > 1,000 mg/l  
Exposure time: 3 h  
Test Type: Respiration inhibition  
Method: OECD Test Guideline 209  
GLP: yes

### Phenol, isopropylated, phosphate (3:1):

- Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 1.6 mg/l  
Exposure time: 96 h  
Test Type: static test  
Remarks: Information given is based on tests on the mixture itself.
- Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 2.44 mg/l  
Exposure time: 48 h  
Test Type: semi-static test  
Remarks: Information given is based on tests on the mixture itself.
- Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): > 2.5 mg/l  
Exposure time: 96 h  
Test Type: static test  
Method: OECD Test Guideline 201  
GLP: yes  
Remarks: Information given is based on tests on the mixture itself.
- Toxicity to fish (Chronic toxicity) : NOEC: 0.0031 mg/l  
Exposure time: 33 d  
Species: Pimephales promelas (fathead minnow)  
Method: OECD Test Guideline 210
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0.0415 mg/l  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)  
Method: OECD Test Guideline 211

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M-Factor (Chronic aquatic toxicity) : 10

### triphenyl phosphate:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0.4 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0.36 mg/l  
Exposure time: 48 h  
Test Type: static test

Toxicity to algae/aquatic plants : NOEC (Pseudokirchneriella subcapitata (green algae)): 0.25 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 201

EL10 (Pseudokirchneriella subcapitata (green algae)): 0.25 mg/l  
Exposure time: 96 h  
Method: OECD Test Guideline 201

M-Factor (Acute aquatic toxicity) : 1

Toxicity to microorganisms : NOEC (activated sludge): 100 mg/l  
Exposure time: 28 h

Toxicity to fish (Chronic toxicity) : NOEC: 0.037 mg/l  
Exposure time: 30 d  
Species: Oncorhynchus mykiss (rainbow trout)

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 0.254 mg/l  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)  
Method: OECD Test Guideline 211

M-Factor (Chronic aquatic toxicity) : 1

## 12.2 Persistence and degradability

### Product:

Biodegradability : Remarks: No data available

Physico-chemical removability : Remarks: No data available

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### Components:

#### **reaction product of diphenylmethanediisocyanate, octylamine, oleylamine and cyclohexylamine (1:1.58:0.32:0.097):**

Biodegradability : Test Type: aerobic  
Inoculum: activated sludge  
Result: Not readily biodegradable.  
Biodegradation: 23.9 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301F  
GLP: yes

#### **Phenol, isopropylated, phosphate (3:1):**

Biodegradability : Result: Not rapidly biodegradable  
Biodegradation: 17.9 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301D  
GLP: yes

#### **Condensation products of fatty acids, tall oil with 2-amino-2-ethylpropanediol:**

Biodegradability : Result: Not rapidly biodegradable

#### **triphenyl phosphate:**

Biodegradability : Test Type: aerobic  
Inoculum: activated sludge  
Result: Readily biodegradable.  
Biodegradation: 83 - 94 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301C

## 12.3 Bioaccumulative potential

### Product:

Bioaccumulation : Remarks: This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT).  
This mixture contains no substance considered to be very persistent and very bioaccumulating (vPvB).

### Components:

#### **reaction product of diphenylmethanediisocyanate, octylamine, oleylamine and cyclohexylamine (1:1.58:0.32:0.097):**

Partition coefficient: n-octanol/water : log Pow: > 6 (20 °C)  
Method: OECD Test Guideline 117

#### **Phenol, isopropylated, phosphate (3:1):**

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Partition coefficient: n-octanol/water : log Pow: 4.92 - 5.17 (25 °C)

### Condensation products of fatty acids, tall oil with 2-amino-2-ethylpropanediol:

Bioaccumulation : Bioconcentration factor (BCF): < 100

Partition coefficient: n-octanol/water : log Pow: 9.01

### triphenyl phosphate:

Bioaccumulation : Species: *Oryzias latipes* (Orange-red killifish)  
Exposure time: 18 d  
Concentration: 0.01 mg/l  
Bioconcentration factor (BCF): 144

Partition coefficient: n-octanol/water : log Pow: 4.6 (20 °C)

## 12.4 Mobility in soil

### Product:

Mobility : Remarks: No data available

Distribution among environmental compartments : Remarks: No data available

## 12.5 Results of PBT and vPvB assessment

### Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher..

### Components:

#### Phenol, isopropylated, phosphate (3:1):

Assessment : Non-classified PBT substance. Non-classified vPvB substance.

## 12.6 Other adverse effects

### Product:

Endocrine disrupting potential : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation

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(EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Additional ecological information : Toxic to aquatic life with long lasting effects.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water courses or the soil.  
Do not dispose of with domestic refuse.  
Dispose of as hazardous waste in compliance with local and national regulations.

Waste codes should be assigned by the user based on the application for which the product was used.

Contaminated packaging : Packaging that is not properly emptied must be disposed of as the unused product.  
Dispose of waste product or used containers according to local regulations.

The following Waste Codes are only suggestions:

Waste Code : used product, unused product  
12 01 12\*, spent waxes and fats  
  
uncleaned packagings  
15 01 10, packaging containing residues of or contaminated by hazardous substances

## SECTION 14: Transport information

### 14.1 UN number

ADR : UN 3077  
RID : UN 3077  
IMDG : UN 3077  
IATA : UN 3077

### 14.2 UN proper shipping name

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**ADR** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(Triaryl Phosphate Isopropylated, triphenyl phosphate)

**RID** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(Triaryl Phosphate Isopropylated, triphenyl phosphate)

**IMDG** : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(Triaryl Phosphate Isopropylated, triphenyl phosphate)

**IATA** : Environmentally hazardous substance, solid, n.o.s.  
(Triaryl Phosphate Isopropylated, triphenyl phosphate)

### 14.3 Transport hazard class(es)

**ADR** : 9

**RID** : 9

**IMDG** : 9

**IATA** : 9

### 14.4 Packing group

**ADR**  
Packing group : III  
Classification Code : M7  
Hazard Identification Number : 90  
Labels : 9

**RID**  
Packing group : III  
Classification Code : M7  
Hazard Identification Number : 90  
Labels : 9

**IMDG**  
Packing group : III  
Labels : 9  
EmS Code : F-A, S-F

**IATA (Cargo)**  
Packing instruction (cargo aircraft) : 956  
Packing instruction (LQ) : Y956  
Packing group : III  
Labels : Miscellaneous

**IATA (Passenger)**  
Packing instruction (passenger aircraft) : 956  
Packing instruction (LQ) : Y956  
Packing group : III

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Labels : Miscellaneous

### 14.5 Environmental hazards

#### ADR

Environmentally hazardous : yes

#### RID

Environmentally hazardous : yes

#### IMDG

Marine pollutant : yes

#### IATA (Passenger)

Environmentally hazardous : yes

#### IATA (Cargo)

Environmentally hazardous : yes

### 14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

### 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Remarks : Not applicable for product as supplied.

## SECTION 15: Regulatory information

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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) : Not applicable

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). (EU SVHC) : This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).

REACH - List of substances subject to authorisation (Annex XIV) (EU. REACH - Annex XIV) : Not applicable

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer (EC 1005/2009) : Not applicable

Regulation (EU) 2019/1021 on persistent organic pollutants (recast) (EU POP) : Not applicable

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Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals (EU PIC) : Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. : E2 ENVIRONMENTAL HAZARDS

Volatile organic compounds : Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control)  
Volatile organic compounds (VOC) content: 2.18 %

### 15.2 Chemical safety assessment

This information is not available.

## SECTION 16: Other information

### Full text of H-Statements

H317 : May cause an allergic skin reaction.  
H361 : Suspected of damaging fertility or the unborn child.  
H373 : May cause damage to organs through prolonged or repeated exposure if swallowed.  
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.  
H413 : May cause long lasting harmful effects to aquatic life.

### Full text of other abbreviations

GB EH40 : UK. EH40 WEL - Workplace Exposure Limits  
GB EH40 / TWA : Long-term exposure limit (8-hour TWA reference period)  
GB EH40 / STEL : Short-term exposure limit (15-minute reference period)

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Con-

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centration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of very high concern; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

### Classification of the mixture:

Aquatic Chronic 2

H411

### Classification procedure:

Calculation method

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