

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

- **1.1 Product identifier**  

Trade name:

PERGAPROP HX-7.5 PP
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  

No further relevant information available.
- **Application of the substance / the mixture**  

Reaction initiator  
For industrial use
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  

PERGAN GmbH  
Hilfsstoffe für industrielle Prozesse  
Schlavenhorst 71  
D-46395 Bocholt  
Tel: +49 2871 9902-0  
Fax: +49 2871 9902-50
- **Further information obtainable from:**  

Qualified person: E-mail: msds@pergan.com
- **1.4 Emergency telephone number:**  

- Tel: +49 2871 9902-0

## SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**  

The product is not classified, according to the CLP regulation.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**  

Void
- **Hazard pictograms**  

Void
- **Signal word**  

Void
- **Hazard-determining components of labelling:**  

2,5-Dimethyl-2,5-di-(tert.-butylperoxy)-hexane
- **Hazard statements**  

Void
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:**  

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.
- **vPvB:**  

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.
- **Determination of endocrine-disrupting properties**  

The product does not contain substances with endocrine disrupting properties.

## SECTION 3: Composition/information on ingredients

### · 3.2 Mixtures

#### · Dangerous components:

CAS: 78-63-7 EINECS: 201-128-1 Reg-No.: 01-2119875400-42	2,5-Dimethyl-2,5-di-(tert.-butylperoxy)-hexane	Org. Perox. C, H242; Skin Irrit. 2, H315	5-10%
--	--	--	-------

- **Additional information:**  

For the wording of the listed hazard phrases refer to section 16.

## SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:**  

No special measures required.
- **After inhalation:**  

Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**  

Generally the product does not irritate the skin.
- **After eye contact:**  

Rinse opened eye for several minutes under running water.
- **After swallowing:**  

If symptoms persist consult doctor.
- **4.2 Most important symptoms and effects, both acute and delayed**  

No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**  

No further relevant information available.


Trade name: **PERGAPROP HX-7.5 PP**

(Contd. of page 1)

### SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **5.2 Special hazards arising from the substance or mixture** Under certain fire conditions, traces of other toxic gases cannot be excluded.
- **5.3 Advice for firefighters**
- **Protective equipment:** Do not inhale explosion gases or combustion gases.
- **Additional information** Self-protection first!

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
- **6.2 Environmental precautions:**  Wear protective equipment. Keep unprotected persons away.  
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:** Pick up mechanically.
- **6.4 Reference to other sections** See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.  
In case of large spillage the environmental authority should be informed.

### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** No special measures required.  
Keep receptacles tightly sealed.  
Store in cool, dry place in tightly closed receptacles.  
Open and handle receptacle with care.  
Prevent formation of dust.  
Avoid shock and friction.
- **Information about fire - and explosion protection:** Prevent impact and friction.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.  
Store in cool, dry conditions in well sealed receptacles.  
Protect from heat and direct sunlight.  
Protect from contamination.  
Store in a cool place.
- **Recommended storage temperature (To maintain quality):** +10 .... +40 °C
- **Storage class:** 11
- **7.3 Specific end use(s)** No further relevant information available.

### \* SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:** The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.




· <b>DNELs</b>		
<b>78-63-7 2,5-Dimethyl-2,5-di-(tert.-butylperoxy)-hexane</b>		
Dermal	DNEL Longterm System	15 mg/kg bw/day (Worker)
Inhalative	DNEL Longterm System	11 mg/m3 (Worker)

(Contd. on page 3)

IE

## Trade name: **PERGAPROP HX-7.5 PP**

(Contd. of page 2)

· <b>PNECs</b>	
<b>78-63-7 2,5-Dimethyl-2,5-di-(tert.-butylperoxy)-hexane</b>	
PNEC Marinewater sed	7,22 mg/kg sed dw (-)
PNEC Freshwater	0,00065 mg/l (AF 10)
PNEC Freshwater sed	72,2 mg/kg sed dw (-)
PNEC Soil	14,4 mg/kg soil dw (-)
PNEC STP	100 mg/l (AF 10)
PNEC Marinewater	0,00065 mg/l (AF 100)
· <b>Additional information:</b> The lists valid during the making were used as basis.	
· <b>8.2 Exposure controls</b>	
· <b>Appropriate engineering controls</b>	No further data; see section 7.
· <b>Individual protection measures, such as personal protective equipment</b>	
· <b>General protective and hygienic measures:</b>	The usual precautionary measures are to be adhered to when handling chemicals. Immediately remove all soiled and contaminated clothing Store protective clothing separately.
· <b>Respiratory protection:</b>	 Filter P2
· <b>Hand protection</b>	Not required.
· <b>Material of gloves</b>	 The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
· <b>Penetration time of glove material</b>	The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
· <b>Eye/face protection</b>	 Tightly sealed goggles

## SECTION 9: Physical and chemical properties

· <b>9.1 Information on basic physical and chemical properties</b>	
· <b>General Information</b>	
· <b>Physical state</b>	Solid
· <b>Colour:</b>	white - yellowish
· <b>Odour:</b>	Characteristic
· <b>Odour threshold:</b>	Not determined.
· <b>Melting point/freezing point:</b>	Not applicable.
· <b>Boiling point or initial boiling point and boiling range</b>	Not applicable.
· <b>Flammability</b>	May cause fire.
· <b>Lower and upper explosion limit</b>	
· <b>Lower:</b>	Not determined.
· <b>Upper:</b>	Not determined.
· <b>Flash point:</b>	Not applicable.
· <b>Decomposition temperature:</b>	+80 °C (SADT)
· <b>pH</b>	Not applicable.
· <b>Viscosity:</b>	
· <b>Kinematic viscosity</b>	Not applicable.
· <b>Dynamic:</b>	Not applicable.
· <b>Solubility</b>	
· <b>water:</b>	Undetermined.
· <b>Partition coefficient n-octanol/water (log value)</b>	not determined
	Not determined.
	Not applicable.
· <b>Vapour pressure:</b>	
· <b>Density and/or relative density</b>	
· <b>Density:</b>	Not determined.
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not applicable.
· <b>Particle characteristics</b>	
See section 3.	

(Contd. on page 4)

IE —

Trade name: **PERGAPROP HX-7.5 PP**

(Contd. of page 3)

<b>9.2 Other information</b>	
· <b>Appearance:</b>	
· <b>Form:</b>	Granulate
· <b>Important information on protection of health and environment, and on safety.</b>	
· <b>Ignition temperature:</b>	Product is not selfigniting.
· <b>Explosive properties:</b>	Product does not present an explosion hazard.
· <b>Solvent content:</b>	
· <b>Water:</b>	0,0 %
· <b>Solids content:</b>	91,7 %
· <b>Change in condition</b>	
· <b>Evaporation rate</b>	Not applicable.
<b>Information with regard to physical hazard classes</b>	
· <b>Explosives</b>	Void
· <b>Flammable gases</b>	Void
· <b>Aerosols</b>	Void
· <b>Oxidising gases</b>	Void
· <b>Gases under pressure</b>	Void
· <b>Flammable liquids</b>	Void
· <b>Flammable solids</b>	Void
· <b>Self-reactive substances and mixtures</b>	Void
· <b>Pyrophoric liquids</b>	Void
· <b>Pyrophoric solids</b>	Void
· <b>Self-heating substances and mixtures</b>	Void
· <b>Substances and mixtures, which emit flammable gases in contact with water</b>	Void
· <b>Oxidising liquids</b>	Void
· <b>Oxidising solids</b>	Void
· <b>Organic peroxides</b>	Void
· <b>Corrosive to metals</b>	Void
· <b>Desensitised explosives</b>	Void
· <b>Other safety characteristics</b>	
· <b>Active oxygen</b>	0,7 - 0,9 %

## SECTION 10: Stability and reactivity

· <b>10.1 Reactivity</b>	No further relevant information available.
· <b>10.2 Chemical stability</b>	
· <b>Thermal decomposition / conditions to be avoided:</b>	No decomposition if used and stored according to specifications.
· <b>10.3 Possibility of hazardous reactions</b>	No dangerous reactions known.
· <b>10.4 Conditions to avoid</b>	No further relevant information available.
· <b>10.5 Incompatible materials:</b>	Rapid decomposition by dirt, rust, chemicals in particular concentrated acids, alkalis and accelerators (e. g. heavy-metal compounds and amines).
· <b>10.6 Hazardous decomposition products:</b>	No hazardous decomposition products if used and stored according to specifications.

## SECTION 11: Toxicological information

· <b>11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008</b>	
· <b>Acute toxicity</b>	Based on available data, the classification criteria are not met.

· <b>LD/LC50 values relevant for classification:</b>	
<b>78-63-7 2,5-Dimethyl-2,5-di-(tert.-butylperoxy)-hexane</b>	
Oral	LD50 >2.000 mg/kg (rattus)
Dermal	LD50 >2.000 mg/kg (cuniculus)

· <b>Skin corrosion/irritation</b>	Based on available data, the classification criteria are not met.
· <b>Serious eye damage/irritation</b>	Based on available data, the classification criteria are not met.
· <b>Respiratory or skin sensitisation</b>	Based on available data, the classification criteria are not met.
· <b>Germ cell mutagenicity</b>	Based on available data, the classification criteria are not met.
· <b>Carcinogenicity</b>	Based on available data, the classification criteria are not met.
· <b>Reproductive toxicity</b>	Based on available data, the classification criteria are not met.
· <b>STOT-single exposure</b>	Based on available data, the classification criteria are not met.
· <b>STOT-repeated exposure</b>	Based on available data, the classification criteria are not met.

(Contd. on page 5)

Trade name: **PERGAPROP HX-7.5 PP**

(Contd. of page 4)

- **Aspiration hazard** Based on available data, the classification criteria are not met.
- **11.2 Information on other hazards**

· **Endocrine disrupting properties**

None of the ingredients is listed.

**SECTION 12: Ecological information**

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability**
- **Degree of elimination:**

· **Classification:****78-63-7 2,5-Dimethyl-2,5-di-(tert.-butylperoxy)-hexane**

Degradation (Not readily biodegradable) (OECD 301 D)

· **12.3 Bioaccumulative potential**· **Partition coefficient: nOctanol/water: [Log Kow]**

78-63-7	2,5-Dimethyl-2,5-di-(tert.-butylperoxy)-hexane	7,34 (20°C)
75-65-0	2-methylpropan-2-ol	0,32 (20°C)
110-05-4	di-tert-butyl peroxide	3,2 (22°C)

· **Bioconcentration factor (BCF)****78-63-7 2,5-Dimethyl-2,5-di-(tert.-butylperoxy)-hexane**

BCF 521-839

- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.
- **vPvB:** The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.
- **12.6 Endocrine disrupting properties** The product does not contain substances with endocrine disrupting properties.
- **12.7 Other adverse effects**
- **Additional ecological information:**
- **General notes:** Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

**SECTION 13: Disposal considerations**

- **13.1 Waste treatment methods**
- **Recommendation** Smaller quantities can be disposed of with household waste.
- **Waste disposal key:** Please contact your hazardous waste disposers to assign the right EWC-(European waste catalog)-number.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

**SECTION 14: Transport information**

- **14.1 UN number or ID number**
- **ADR, IMDG, IATA** Void
- **14.2 UN proper shipping name**
- **ADR, IMDG, IATA** Void
- **14.3 Transport hazard class(es)**
- **ADR, IMDG, IATA**
- **Class** Void
- **14.4 Packing group**
- **ADR, IMDG, IATA** Void
- **14.5 Environmental hazards:** Not applicable.
- **14.6 Special precautions for user** Not applicable.
- **14.7 Maritime transport in bulk according to IMO instruments** Not applicable.

(Contd. on page 6)

Trade name: **PERGAPROP HX-7.5 PP**

(Contd. of page 5)

· <b>Transport/Additional information:</b>	No dangerous good according the regulation of transport.
· <b>ADR</b>	
· <b>RID / GGVSEB:</b>	like ADR

## \* SECTION 15: Regulatory information

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

#### · Directive 2012/18/EU

#### · Named dangerous substances

##### - ANNEX I

None of the ingredients is listed.

#### · DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II

None of the ingredients is listed.

#### · REGULATION (EU) 2019/1148

##### · Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

None of the ingredients is listed.

##### · Annex II - REPORTABLE EXPLOSIVES PRECURSORS

None of the ingredients is listed.

##### · Regulation (EC) No 273/2004 on drug precursors

None of the ingredients is listed.

##### · Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

None of the ingredients is listed.

## SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

#### · Relevant phrases

H242 Heating may cause a fire.

H315 Causes skin irritation.

#### · Contact:

Tel: +49 2871 9902-0

E-mail: mail@pergan.com

#### · Version number of previous version:

8

#### · Abbreviations and acronyms:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)  
 IMDG: International Maritime Code for Dangerous Goods  
 IATA: International Air Transport Association  
 GHS: Globally Harmonised System of Classification and Labelling of Chemicals  
 EINECS: European Inventory of Existing Commercial Chemical Substances  
 ELINCS: European List of Notified Chemical Substances  
 CAS: Chemical Abstracts Service (division of the American Chemical Society)  
 DNEL: Derived No-Effect Level (REACH)  
 PNEC: Predicted No-Effect Concentration (REACH)  
 LC50: Lethal concentration, 50 percent  
 LD50: Lethal dose, 50 percent  
 PBT: Persistent, Bioaccumulative and Toxic  
 vPvB: very Persistent and very Bioaccumulative  
 Org. Perox. C: Organic peroxides – Type C/D  
 Skin Irrit. 2: Skin corrosion/irritation – Category 2

#### · \* Data compared to the previous version altered.