

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

- **1.1 Product identifier**

PERGAPROP HX-7.5 PP
- **Trade name:**
- **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 GB 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 UK REACH, annex XIII.
- **vPvB:**

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

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%
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- **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.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**

Use fire extinguishing methods suitable to surrounding conditions.


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- **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.

· DNELs			
78-63-7 2,5-Dimethyl-2,5-di-(tert.-butylperoxy)-hexane			
Dermal	DNEL Longterm System	15 mg/kg bw/day (Worker)	
Inhalative	DNEL Longterm System	11 mg/m3 (Worker)	
· PNECs			
78-63-7 2,5-Dimethyl-2,5-di-(tert.-butylperoxy)-hexane			
PNEC Marinewater sed	7.22 mg/kg sed dw (-)		

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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)

· **Additional information:** The lists valid during the making were used as basis.

· **8.2 Exposure controls**

· **Appropriate engineering controls**

No further data; see section 7.

· **Individual protection measures, such as personal protective equipment**

· **General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.
Immediately remove all soiled and contaminated clothing
Store protective clothing separately.

· **Respiratory protection:**



Filter P2

· **Hand protection**

Not required.

· **Material of gloves**



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.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye/face protection**



Tightly sealed goggles

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· **Physical state**

Solid

· **Colour:**

white - yellowish

· **Odour:**

Characteristic

· **Odour threshold:**

Not determined.

· **Melting point/freezing point:**

Not applicable.

· **Boiling point or initial boiling point and boiling range**

Not applicable.

· **Flammability**

May cause fire.

· **Lower and upper explosion limit**

· **Lower:**

Not determined.

· **Upper:**

Not determined.

· **Flash point:**

Not applicable.

· **Decomposition temperature:**

+80 °C (SADT)

· **pH**

Not applicable.

· **Viscosity:**

· **Kinematic viscosity**

Not applicable.

· **Dynamic:**

Not applicable.

· **Solubility**

· **water:**

Undetermined.

· **Partition coefficient n-octanol/water (log value)**

not determined

Not determined.

Not applicable.

· **Vapour pressure:**

· **Density and/or relative density**

· **Density:**

Not determined.

· **Relative density**

Not determined.

· **Vapour density**

Not applicable.

· 9.2 Other information

· **Appearance:**

· **Form:**

Granulate

· **Important information on protection of health and environment, and on safety.**

· **Ignition temperature:**

Product is not selfigniting.

· **Explosive properties:**

Product does not present an explosion hazard.

· **Solvent content:**

· **Water:**

0.0 %

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· Solids content:	91.7 %
· Change in condition	
· Evaporation rate	Not applicable.
· Information with regard to physical hazard classes	
· Explosives	Void
· Flammable gases	Void
· Aerosols	Void
· Oxidising gases	Void
· Gases under pressure	Void
· Flammable liquids	Void
· Flammable solids	Void
· Self-reactive substances and mixtures	Void
· Pyrophoric liquids	Void
· Pyrophoric solids	Void
· Self-heating substances and mixtures	Void
· Substances and mixtures, which emit flammable gases in contact with water	Void
· Oxidising liquids	Void
· Oxidising solids	Void
· Organic peroxides	Void
· Corrosive to metals	Void
· Desensitised explosives	Void
· Other safety characteristics	
· Active oxygen	0.7 - 0.9 %

SECTION 10: Stability and reactivity

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

SECTION 11: Toxicological information

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

· LD/LC50 values relevant for classification:

78-63-7 2,5-Dimethyl-2,5-di-(tert.-butylperoxy)-hexane

Oral	LD50	>2,000 mg/kg (rattus)
Dermal	LD50	>2,000 mg/kg (rabbit)

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

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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)
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75-65-0	2-methylpropan-2-ol	0,32 (20°C)
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110-05-4	di-tert-butyl peroxide	3,2 (22°C)
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- **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 UK REACH, annex XIII.
- **vPvB:** The substances in the mixture do not meet the PBT/vPvB criteria according to UK 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 | Void |
| · ADR, IMDG, IATA | |
| · 14.2 UN proper shipping name | Void |
| · ADR, IMDG, IATA | |
| · 14.3 Transport hazard class(es) | Void |
| · ADR, IMDG, IATA | |
| · Class | |
| · 14.4 Packing group | Void |
| · ADR, IMDG, IATA | |
| · 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. |
| · Transport/Additional information: | No dangerous good according the regulation of transport. |
| · ADR | |
| · RID / GGVSEB: | like ADR |

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* SECTION 15: Regulatory information

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

· Poisons Act

· Regulated explosives precursors

None of the ingredients is listed.

· Regulated poisons

None of the ingredients is listed.

· Reportable explosives precursors

None of the ingredients is listed.

· Reportable poisons

None of the ingredients is listed.

· 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.

· 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

· 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 (UK REACH)

PNEC: Predicted No-Effect Concentration (UK 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.