

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

- 1.1 Product identifier PERGAPROP HX-1 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: Environment protection / Security of labour
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
- Additional information: The synthetic polymer microparticles supplied are subject to conditions laid down by entry 78 of Annex XVII to Regulation (EC) No 1907/2006 of the European Parliament and of the Council.
Safety data sheet available on request.
- 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.
- 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	1-2.5%
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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: Take care of personal protection for the first aider.
- After inhalation: Take affected persons into fresh air and keep quiet.
- After skin contact: Immediately remove contaminated clothing.
- 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
Treatment: Symptomatic treatment
No further relevant information available.

SECTION 5: Firefighting measures


- 5.1 Extinguishing media
- Suitable extinguishing agents: CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

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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.
Wear self-contained respiratory protective device.
- **Additional information** Cool endangered receptacles with water spray.
Collect contaminated fire fighting water separately. It must not enter the sewage system.
Self-protection first!

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** In case of further temperature should be cooled with waterspray from a safe distance.
Wear breathing apparatus with filter A during decomposition of materials.
Ensure adequate ventilation
- **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:** Never dispose of spilled product in the original container for recycling.
Pick up mechanically, collect in a suitable receptacle and dispose in accordance with government regulations.
- **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** Open and handle receptacle with care.
Prevent formation of dust.
Wear suitable respiratory protective device when decanting larger quantities without extractor facilities.
Before break and at the end of work hands should be thoroughly washed.
Keep away from dirt, rust, chemicals in particular concentrated acids, alkalis and accelerators (e. g. heavy-metal compounds and amines).
While using do not eat, drink or smoke.
Take precautionary measures against static discharges.
- **Information about fire - and explosion protection:** Protect from heat.
Prevent impact and friction.
Protect against electrostatic charges.
Substance/product is oxidising when dry.
 Avoid open flames, sparks, direct sunlight and other sources of ignition.
- **7.2 Conditions for safe storage, including any incompatibilities**
 - **Storage:** Pay attention to the special requirements of your local authorities for storing dangerous goods.
 - **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.
Prevent any seepage into the ground.
Use only receptacles specifically permitted for this substance/product.
 - **Information about storage in one common storage facility:** Store away from foodstuffs, drinks and feeding stuffs.
 - **Further information about storage conditions:** Protect from heat and direct sunlight.
Protect from contamination.
 - **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.

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· 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 Sewage treatment plant	100 mg/l (AF 10)
· 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. Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing Wash hands before breaks and at the end of work. Store protective clothing separately. Do not eat, drink, smoke or sniff while working. Use skin protection cream for skin protection. Be sure to clean skin thoroughly after work and before breaks.
· Respiratory protection:	Not necessary if room is well-ventilated.
	 Use suitable respiratory device when it exceed exposure limit and when insufficiently ventilated.
	 Filter P2
· Hand protection	Only use chemical-protective gloves with CE-labelling of category III.
	 Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
	Protective gloves
· 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. Butyl rubber, BR Fluorocarbon rubber (Viton) Nitrile rubber, NBR Neoprene
· Penetration time of glove material	The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
· Eye/face protection	 Tightly sealed goggles
· Body protection:	 Protective work clothing

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties	
· General Information	
· Colour:	White
· 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
· Vapour pressure:	Not applicable
· Density and/or relative density	
· Density:	Not determined

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· 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:	Not determined
· Change in condition	
· Evaporation rate	Not applicable.
· Information with regard to physical hazard classes	Void

SECTION 10: Stability and reactivity

· 10.1 Reactivity	No further relevant information available.
· 10.2 Chemical stability	
· Thermal decomposition / conditions to be avoided:	SADT (Self Accelerating Decomposition Temperature) is the lowest temperature at which self accelerating decomposition may occur with substance in the packaging as used in transport. A dangerous self-accelerating decomposition reaction and, under certain circumstances, explosion or fire can be cause decomposition at and above the temperature. Contact with incompatible substances can cause decomposition at or below the SADT. No decomposition if used and stored according to specifications.
· 10.3 Possibility of hazardous reactions	Self-accelerating decomposition at SADT.
· 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:	Hydrocarbons, carbon dioxide and -monoxid. Fire and decomposition may produce irritating, corrosive, flammable, harmful or toxic gases and vapours.
· Additional information:	Emergency procedures will vary depending on conditions. The customer should have an emergency response plane in place.

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

· Primary irritant effect:	
· 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)

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· **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)

· **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**



Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· **Waste disposal key:**

Please contact your hazardous waste disposers to assign the right EWC-(European waste catalog)-number.

· **Uncleaned packaging:**

· **Recommendation:**

This material and its container must be disposed of as hazardous waste.

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:**

· **Marine pollutant:**

No

· **14.6 Special precautions for user**

Not applicable

· **14.7 Maritime transport in bulk according to IMO instruments**

Not applicable

· **Transport/Additional information:**

· **ADR**

· **RID / GGVSEB:**

like ADR

*** 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.

· **REGULATION (EC) No 1907/2006 ANNEX XVII**

Conditions of restriction: 78

· **Additional information on Entry 78**

The estimated overall proportion of microplastics in the mixture is approx. 90-100 %

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GB

Safety data sheet
 according to Regulation (EC) No 1907/2006, Article 31

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Version: 4 (replaces version 3)

Revision: 02.04.2026

Trade name: **PERGAPROP HX-1 PP**

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Process the product in closed systems or with suitable extraction/filtering techniques avoid release to soil wastewater surface water
 Collect cleaning waters separately and forward them to appropriate disposal do not discharge into the sewer system
 Collect product residues and contaminated packaging in containers do not rinse dispose of in accordance with legal requirements

· Synthetic polymer microparticles		
9010-79-1	1-propene, polymer with ethene Type of polymer: Copolymer of ethylene and propylene	90-100%
· 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		
· 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.		
· National regulations:		
· Other regulations, limitations and prohibitive regulations		
· Please note: Take care of the respective local regulations.		
· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.		

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.
- **Department issuing SDS:** Environment protection / Security of labour
- **Contact:** Tel: +49 2871 9902-0
E-mail: mail@pergan.com
- **Abbreviations and acronyms:** RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
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.**