


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

- **1.1 Product identifier**
  - Trade name: **PERGASLOW PK-100**
  - CAS Number: 128-37-0
  - EC number: 204-881-4
  - Registration number: 01-2119555270-46, 01-2119565113-46
- **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**
  - Inhibitor
  - 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
  - Competent person:
    - \* Sales Manager Germany: Mr. Ansgar Pappenheim, e-mail: a.pappenheim@pergan.com
    - \* Export Sales Manager: Mr. Dr. Thomas Philipps, e-mail: dr.philipps@pergan.com
    - \* Environment protection / Security of labour: Mr. Christoph Wiltling, e-mail: c.wiltling@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**
    - Aquatic Acute 1 H400 Very toxic to aquatic life.
    - Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.
- **2.2 Label elements**
  - **Labelling according to Regulation (EC) No 1272/2008**
    - The substance is classified and labelled according to the CLP regulation.
  - **Hazard pictograms**
    - 
    - GHS09
  - **Signal word**
    - Warning
  - **Hazard-determining components of labelling:**
    - Butylated hydroxytoluene
  - **Hazard statements**
    - H410 Very toxic to aquatic life with long lasting effects.
  - **Precautionary statements**
    - P273 Avoid release to the environment.
    - P391 Collect spillage.
- **2.3 Other hazards**
  - **Results of PBT and vPvB assessment**
    - **PBT:** This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.
    - **vPvB:** This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.
- **Determination of endocrine-disrupting properties**

List II

## SECTION 3: Composition/information on ingredients

- **3.1 Substances**
  - **CAS No. Description** 128-37-0 Butylated hydroxytoluene
  - **Identification number(s)**
  - **EC number:** 204-881-4

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· <b>Dangerous components:</b>		
CAS: 128-37-0 EINECS: 204-881-4 Reg-No.: 01-2119555270-46 01-2119565113-46	Butylated hydroxytoluene Aquatic Acute 1, H400; Aquatic Chronic 1, H410	90-100%
CAS: 67-56-1 EINECS: 200-659-6 Index number: 603-001-00-X Reg-No.: 01-2119433307-44	methanol Flam. Liq. 2, H225; Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; STOT SE 1, H370 Specific concentration limits: STOT SE 1; H370: C ≥ 10 % STOT SE 2; H371: 3 % ≤ C < 10 %	0,1-1%

#### SECTION 4: First aid measures

##### · 4.1 Description of first aid measures

- **General information:** No special measures required.
- **After inhalation:** Take affected persons into fresh air and keep quiet.  
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Clean with water and soap. If possible, also wash with polyethylene glycol 400.  
If skin irritation continues, consult a doctor.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** Rinse out mouth and then drink plenty of water.  
Do not induce vomiting; call for medical help immediately.  
A person vomiting while laying on their back should be turned onto their side.

##### · 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.  
Water haze  
Fire-extinguishing powder  
Foam
- **For safety reasons unsuitable extinguishing agents:** Carbon dioxide  
Water with full jet
- **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!  
Collect contaminated fire fighting water separately. It must not enter the sewage system.

#### SECTION 6: Accidental release measures

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

Ensure adequate ventilation  
Wear protective equipment. Keep unprotected persons away.

##### · 6.2 Environmental precautions:



Do not allow to enter sewers/ surface or ground water.

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

Pick up mechanically.  
Dispose contaminated material as waste according to item 13.

##### · 6.4 Reference to other sections

No dangerous substances are released.  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

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**SECTION 7: Handling and storage**

- **7.1 Precautions for safe handling**
  - Thorough dedusting.
  - Prevent formation of dust.
  - Before break and at the end of work hands should be thoroughly washed.
- **Information about fire - and explosion protection:**
  - Product is not explosive. However, formation of explosive air/dust mixtures are possible.
  - Flammable gas-air mixtures may form in empty receptacles.
- **7.2 Conditions for safe storage, including any incompatibilities**
  - **Storage:**
  - **Requirements to be met by storerooms and receptacles:**
    - Store only in the original receptacle.
    - Prevent any seepage into the ground.
    - Protect against electrostatic charges.
  - **Information about storage in one common storage facility:** .
  - **Further information about storage conditions:**
    - Storage in a collecting room is required.
  - **Recommended storage temperature (To maintain quality):**
    - 0 .... +30 °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:****128-37-0 Butylated hydroxytoluene**

OEL (Ireland)	Long-term value: 2 mg/m <sup>3</sup>
WEL (Great Britain)	Long-term value: 10 mg/m <sup>3</sup>

**67-56-1 methanol**

OEL (Ireland)	Long-term value: 260 mg/m <sup>3</sup> , 200 ppm Sk, IOELV
IOELV (EU)	Long-term value: 260 mg/m <sup>3</sup> , 200 ppm Skin
WEL (Great Britain)	Short-term value: 333 mg/m <sup>3</sup> , 250 ppm Long-term value: 266 mg/m <sup>3</sup> , 200 ppm Sk

· **DNELs****128-37-0 Butylated hydroxytoluene**

Dermal	DNEL Longterm System	0,5 mg/kg bw/day (Worker)
Inhalative	DNEL Longterm System	1,76 mg/m <sup>3</sup> (Worker)

**67-56-1 methanol**

Dermal	DNEL Longterm System	20 mg/kg bw/day (Worker)
Inhalative	DNEL Longterm System	130 mg/m <sup>3</sup> (Worker)

· **PNECs****128-37-0 Butylated hydroxytoluene**

PNEC Marinewater sed	0,046 mg/kg sed dw (-)
PNEC Freshwater	0,000199 mg/l (AF 1.000)
PNEC Seawater	0,00002 mg/l (AF 10.000)
PNEC Freshwater sed	0,458 mg/kg sed dw (-)
PNEC Soil	0,054 mg/kg soil dw (-)
PNEC STP	0,017 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 item 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.

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<ul style="list-style-type: none"> <li>· <b>Respiratory protection:</b></li> <li>· <b>Hand protection</b></li> <li>· <b>Material of gloves</b></li> <li>· <b>Penetration time of glove material</b></li> <li>· <b>Eye/face protection</b></li> <li>· <b>Body protection:</b></li> </ul>	<p>Keep away from foodstuffs, beverages and feed. Avoid contact with the eyes and skin. Suitable respiratory protective device recommended.</p> <p> Filter P1</p> <p>Only use chemical-protective gloves with CE-labelling of category III. The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.</p> <p> 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.</p> <p>Synthetic rubber PVC</p> <p>The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.</p> <p> Tightly sealed goggles</p> <p> Protective work clothing</p>
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\* **SECTION 9: Physical and chemical properties**

<ul style="list-style-type: none"> <li>· <b>9.1 Information on basic physical and chemical properties</b></li> <li>· <b>General Information</b></li> <li>· <b>Colour:</b> Not determined.</li> <li>· <b>Odour:</b> Characteristic</li> <li>· <b>Odour threshold:</b> Not determined.</li> <li>· <b>Melting point/freezing point:</b> 69,8 °C</li> <li>· <b>Boiling point or initial boiling point and boiling range</b> 265 °C</li> <li>· <b>Flammability</b> Not applicable.</li> <li>· <b>Lower and upper explosion limit</b> Product is not flammable.</li> <li>· <b>Lower:</b> Not determined.</li> <li>· <b>Upper:</b> Not determined.</li> <li>· <b>Flash point:</b> 127 °C</li> <li>· <b>Decomposition temperature:</b> &gt;265 °C</li> <li>· <b>pH</b> Not applicable.</li> <li>· <b>Viscosity:</b></li> <li>· <b>Kinematic viscosity</b> Not applicable.</li> <li>· <b>Dynamic:</b> Not applicable.</li> <li>· <b>Solubility</b></li> <li>· <b>water at 20 °C:</b> 0,00076 g/l</li> <li>· <b>Partition coefficient n-octanol/water (log value)</b> 5,1 log POW</li> <li>· <b>Vapour pressure:</b> Not applicable.</li> <li>· <b>Density and/or relative density</b></li> <li>· <b>Density at 20 °C:</b> 1,03 g/cm<sup>3</sup></li> <li>· <b>Relative density</b> Not determined.</li> <li>· <b>Bulk density at 20 °C:</b> 650 kg/m<sup>3</sup></li> <li>· <b>Vapour density</b> Not applicable.</li> <li>· <b>Particle characteristics</b> See item 3.</li> </ul>	
<ul style="list-style-type: none"> <li>· <b>9.2 Other information</b></li> <li>· <b>Appearance:</b></li> <li>· <b>Form:</b> Solid</li> <li>· <b>Important information on protection of health and environment, and on safety.</b></li> <li>· <b>Auto-ignition temperature:</b> Not determined.</li> <li>· <b>Explosive properties:</b> Product is not explosive. However, formation of explosive air/dust mixtures are possible.</li> <li>· <b>Change in condition</b></li> <li>· <b>Evaporation rate</b> Not applicable.</li> </ul>	
<ul style="list-style-type: none"> <li>· <b>Information with regard to physical hazard classes</b></li> <li>· <b>Explosives</b> Void</li> <li>· <b>Flammable gases</b> Void</li> <li>· <b>Aerosols</b> Void</li> <li>· <b>Oxidising gases</b> Void</li> </ul>	

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· 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

**SECTION 10: Stability and reactivity**

· 10.1 Reactivity	No further relevant information available.
· 10.3 Possibility of hazardous reactions	No dangerous reactions known.
· 10.4 Conditions to avoid	Prevent formation of dust.
· 10.5 Incompatible materials:	No further relevant information available.
· 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:

**128-37-0 Butylated hydroxytoluene**

Oral	LD50	>2.000 mg/kg (rattus)
Dermal	LD50	>2.000 mg/kg (cuniculosus)

**67-56-1 methanol**

Oral	LD50	1.187 mg/kg (rattus)
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· Skin corrosion/irritation	Low irritant effect
· Serious eye damage/irritation	Low irritant effect
· 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

List II

**SECTION 12: Ecological information**

## · 12.1 Toxicity

## · Aquatic toxicity:

**128-37-0 Butylated hydroxytoluene**

LC0 /96h	>0,57 mg/l (piscis)
EC50 / 48h	0,61 mg/l (daphnia magna)
IC50 / 72h	>0,4 mg/l (alga)

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<b>67-56-1 methanol</b>		
EC50 / 72h	22.000 mg/l (alga)	
· <b>12.2 Persistence and degradability</b>		
· Degree of elimination:		
· <b>Classification:</b>		
<b>128-37-0 Butylated hydroxytoluene</b>		
Degradation	(Not readily biodegradable)	
<b>67-56-1 methanol</b>		
Degradation	(Readily biodegradable)	
· <b>12.3 Bioaccumulative potential</b>		
· <b>Partition coefficient: nOctanol/water: [Log Kow]</b>		
128-37-0	Butylated hydroxytoluene	5,1
67-56-1	methanol	-0,77 (20°C)
· <b>Bioconcentration factor (BCF)</b>		
<b>128-37-0 Butylated hydroxytoluene</b>		
BCF	1.277	
<b>67-56-1 methanol</b>		
BCF	<10	
· <b>12.4 Mobility in soil</b>	No further relevant information available.	
· <b>12.5 Results of PBT and vPvB assessment</b>		
· PBT:	This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.	
· vPvB:	This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.	
· <b>12.6 Endocrine disrupting properties</b>	For information on endocrine disrupting properties see section 11.	
· <b>12.7 Other adverse effects</b>	No further relevant information available.	
· <b>Additional ecological information:</b>		
· <b>General notes:</b>	Water hazard class 2 (German Regulation) (Assessment by list): hazardous for water Do not allow product to reach ground water, water course or sewage system. Danger to drinking water if even small quantities leak into the ground.	

### SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **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


· <b>14.1 UN number or ID number</b>	UN3077
· <b>ADR, IMDG, IATA</b>	
· <b>14.2 UN proper shipping name</b>	UN3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Butylated hydroxytoluene)
· <b>ADR</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Butylated hydroxytoluene), MARINE POLLUTANT
· <b>IMDG</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Butylated hydroxytoluene)
· <b>IATA</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Butylated hydroxytoluene)
· <b>14.3 Transport hazard class(es)</b>	
· <b>ADR</b>	
	
· <b>Class</b>	9 (M7) Miscellaneous dangerous substances and articles.
· <b>Label</b>	9

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· <b>IMDG, IATA</b>	
	
· <b>Class</b>	9 Miscellaneous dangerous substances and articles.
· <b>Label</b>	9
· <b>14.4 Packing group</b>	
· <b>ADR, IMDG, IATA</b>	III
· <b>14.5 Environmental hazards:</b>	
	Product contains environmentally hazardous substances: Butylated hydroxytoluene
· <b>Marine pollutant:</b>	Yes
	Symbol (fish and tree)
· <b>Special marking (ADR):</b>	Symbol (fish and tree)
· <b>Special marking (IATA):</b>	Symbol (fish and tree)
· <b>14.6 Special precautions for user</b>	
· <b>Stowage Category</b>	Warning: Miscellaneous dangerous substances and articles.
· <b>Stowage Code</b>	A SW23 When transported in BK3 bulk container, see 7.6.2.12 and 7.7.3.9.
· <b>14.7 Maritime transport in bulk according to IMO instruments</b> Not applicable.	
· <b>Transport/Additional information:</b>	
· <b>ADR</b>	
· <b>Limited quantities (LQ)</b>	5 kg
· <b>Excepted quantities (EQ)</b>	Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g
· <b>Transport category</b>	3
· <b>Tunnel restriction code</b>	E
· <b>RID / GGVSEB:</b>	
	like ADR
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	5 kg
· <b>Excepted quantities (EQ)</b>	Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g

## \* 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** Substance is not listed.
- **Seveso category** E1 Hazardous to the Aquatic Environment
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 100 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 69

#### · **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.

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· **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**
  - H225 Highly flammable liquid and vapour.
  - H301 Toxic if swallowed.
  - H311 Toxic in contact with skin.
  - H331 Toxic if inhaled.
  - H370 Causes damage to organs.
  - H400 Very toxic to aquatic life.
  - H410 Very toxic to aquatic life with long lasting effects.
  
- **Department issuing SDS:** Environment protection / Security of labour
- **Contact:**
  - Tel: +49 2871 9902-0
  - E-mail: mail@pergan.com
  
- **Version number of previous version:** 7
- **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)
  - ICAO: International Civil Aviation Organisation
  - 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
  - Flam. Liq. 2: Flammable liquids – Category 2
  - Acute Tox. 3: Acute toxicity – Category 3
  - STOT SE 1: Specific target organ toxicity (single exposure) – Category 1
  - Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
  - Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1
  
- **\* Data compared to the previous version altered.**