


## \* 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  
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**
- 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 GB 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 UK REACH, Annex XIII.
- **vPvB:** This substance does not meet the PBT/vPvB criteria of UK REACH, Annex XIII.

## 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

· <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%

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#### 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 section 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.

#### 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.

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Prevent any seepage into the ground.  
Protect against electrostatic charges.

- **Information about storage in one common storage facility:**
- **Further information about storage conditions:**
- **Recommended storage temperature (To maintain quality):** 0 .... +30 °C
- **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**

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

##### **67-56-1 methanol**

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

IOELV (EU) Long-term value: 260 mg/m<sup>3</sup>, 200 ppm  
Skin

#### · **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 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.  
Avoid contact with the eyes and skin.

##### · **Respiratory protection:**

Suitable respiratory protective device recommended.



Filter P1

##### · **Hand protection**

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.

##### · **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.

Synthetic rubber  
PVC

##### · **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

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· Body protection:



Protective work clothing

\* **SECTION 9: Physical and chemical properties**· **9.1 Information on basic physical and chemical properties**· **General Information**

· Colour:	Not determined.
· Odour:	Characteristic
· Odour threshold:	Not determined.
· Melting point/freezing point:	69.8 °C
· Boiling point or initial boiling point and boiling range	265 °C
· Flammability	Not applicable.
· Lower and upper explosion limit	Product is not flammable.
· Lower:	Not determined.
· Upper:	Not determined.
· Flash point:	127 °C
· Decomposition temperature:	>265 °C
· pH	Not applicable.
· Viscosity:	
· Kinematic viscosity	Not applicable.
· Dynamic:	Not applicable.
· Solubility	
· water at 20 °C:	0.00076 g/l
· Partition coefficient n-octanol/water (log value)	5.1 log POW
· Vapour pressure:	Not applicable.
· Density and/or relative density	
· Density at 20 °C:	1.03 g/cm <sup>3</sup>
· Relative density	Not determined.
· Bulk density at 20 °C:	650 kg/m <sup>3</sup>
· Vapour density	Not applicable.

· **9.2 Other information**

· Appearance:	
· Form:	Solid
· Important information on protection of health and environment, and on safety.	
· Ignition temperature:	Not determined.
· Explosive properties:	Product is not explosive. However, formation of explosive air/dust mixtures are possible.
· 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

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**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 (rabbit)

**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 (fish)
EC50 / 48h	0.61 mg/l (daphnia)
IC50 / 72h	>0.4 mg/l (algae)

**67-56-1 methanol**

EC50 / 72h	22,000 mg/l (algae)
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**12.2 Persistence and degradability**· **Degree of elimination:**· **Classification:****128-37-0 Butylated hydroxytoluene**

Degradation	(Not readily biodegradable)
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**67-56-1 methanol**

Degradation	(Readily biodegradable)
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**12.3 Bioaccumulative potential**· **Partition coefficient: nOctanol/water: [Log Kow]**

128-37-0 Butylated hydroxytoluene	5,1
67-56-1 methanol	-0,77 (20°C)

· **Bioconcentration factor (BCF)****128-37-0 Butylated hydroxytoluene**

BCF	1,277
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**67-56-1 methanol**

BCF	<10
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- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**
  - **PBT:** This substance does not meet the PBT/vPvB criteria of UK REACH, Annex XIII.
  - **vPvB:** This substance does not meet the PBT/vPvB criteria of UK REACH, Annex XIII.
- **12.6 Endocrine disrupting properties** For information on endocrine disrupting properties see section 11.
- **12.7 Other adverse effects** No further relevant information available.
- **Additional ecological information:**
  - **General notes:** 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**

<ul style="list-style-type: none"> <li>· <b>14.1 UN number or ID number</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>	UN3077
<ul style="list-style-type: none"> <li>· <b>14.2 UN proper shipping name</b></li> <li>· <b>ADR</b></li> <li>· <b>IMDG</b></li> <li>· <b>IATA</b></li> </ul>	UN3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Butylated hydroxytoluene) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Butylated hydroxytoluene), MARINE POLLUTANT ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Butylated hydroxytoluene)
<ul style="list-style-type: none"> <li>· <b>14.3 Transport hazard class(es)</b></li> <li>· <b>ADR</b></li> </ul>  <ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>	9 (M7) Miscellaneous dangerous substances and articles. 9
<ul style="list-style-type: none"> <li>· <b>IMDG, IATA</b></li> </ul>  <ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>	9 Miscellaneous dangerous substances and articles. 9
<ul style="list-style-type: none"> <li>· <b>14.4 Packing group</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>	III
<ul style="list-style-type: none"> <li>· <b>14.5 Environmental hazards:</b></li> <li>· <b>Marine pollutant:</b></li> <li>· <b>Special marking (ADR):</b></li> <li>· <b>Special marking (IATA):</b></li> </ul>	Product contains environmentally hazardous substances: Butylated hydroxytoluene Yes Symbol (fish and tree) Symbol (fish and tree) Symbol (fish and tree)
<ul style="list-style-type: none"> <li>· <b>14.6 Special precautions for user</b></li> <li>· <b>Stowage Category</b></li> <li>· <b>Stowage Code</b></li> </ul>	Warning: Miscellaneous dangerous substances and articles. A SW23 When transported in BK3 bulk container, see 7.6.2.12 and 7.7.3.9.
<ul style="list-style-type: none"> <li>· <b>14.7 Maritime transport in bulk according to IMO instruments</b></li> </ul>	Not applicable.

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· <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**
- **Poisons Act**

· <b>Regulated explosives precursors</b>	None of the ingredients is listed.
· <b>Regulated poisons</b>	None of the ingredients is listed.
· <b>Reportable explosives precursors</b>	None of the ingredients is listed.
· <b>Reportable poisons</b>	None of the ingredients is listed.
· <b>Directive 2012/18/EU</b>	
· <b>Qualifying quantity (tonnes) for the application of lower-tier requirements</b>	100 t
· <b>Qualifying quantity (tonnes) for the application of upper-tier requirements</b>	200 t
· <b>DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II</b>	None of the ingredients is listed.
· <b>Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))</b>	None of the ingredients is listed.
· <b>Annex II - REPORTABLE EXPLOSIVES PRECURSORS</b>	None of the ingredients is listed.
· <b>Regulation (EC) No 273/2004 on drug precursors</b>	None of the ingredients is listed.
· <b>Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors</b>	None of the ingredients is listed.
· <b>National regulations:</b>	
· <b>Other regulations, limitations and prohibitive regulations</b>	
· <b>Please note:</b>	Take care of the respective local regulations.

### 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.

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H371 May cause 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

· **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 (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  
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.**