

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

- **1.1 Product identifier**

- Trade name:
 - CAS Number:
 - EC number:
 - Registration number:

PERGASLOW PK-100

128-37-0

204-881-4

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 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

· Dangerous components:

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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- **Information about storage in one common storage facility:**
 - Prevent any seepage into the ground.
 - Protect against electrostatic charges.
- **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 ³
WEL (Great Britain)	Long-term value: 10 mg/m ³

67-56-1 methanol

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

67-56-1 methanol

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

· Material of gloves



The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

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

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· **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:	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/cm³
· Relative density	Not determined.
· Bulk density at 20 °C:	650 kg/m³
· Vapour density	Not applicable.
· Particle characteristics	

See section 3.

· **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

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· 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 (cuniculus)

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)

67-56-1 methanol

EC50 / 72h	22.000 mg/l (alga)
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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
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67-56-1	methanol	-0,77 (20°C)
· Bioconcentration factor (BCF)		
128-37-0 Butylated hydroxytoluene		
BCF	1.277	
67-56-1 methanol		
BCF	<10	
· 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 REACH, Annex XIII.	
· vPvB:	This substance does not meet the PBT/vPvB criteria of 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

· 14.1 UN number or ID number	UN3077
· ADR, IMDG, IATA	
· 14.2 UN proper shipping name	UN3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Butylated hydroxytoluene)
· ADR	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Butylated hydroxytoluene), MARINE POLLUTANT
· IMDG	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Butylated hydroxytoluene)
· IATA	
· 14.3 Transport hazard class(es)	
· ADR	
	
· Class	9 (M7) Miscellaneous dangerous substances and articles.
· Label	9
· IMDG, IATA	
	
· Class	9 Miscellaneous dangerous substances and articles.
· Label	9
· 14.4 Packing group	III
· ADR, IMDG, IATA	
· 14.5 Environmental hazards:	Product contains environmentally hazardous substances: Butylated hydroxytoluene
· Marine pollutant:	Yes
· Special marking (ADR):	Symbol (fish and tree)
· Special marking (IATA):	Symbol (fish and tree)
· 14.6 Special precautions for user	Warning: Miscellaneous dangerous substances and articles.
· Stowage Category	A

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· Stowage Code	SW23 When transported in BK3 bulk container, see 7.6.2.12 and 7.7.3.9.
· 14.7 Maritime transport in bulk according to IMO instruments	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	5 kg
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g
· Transport category	3
· Tunnel restriction code	E
· RID / GGVSEB:	like ADR
· IMDG	
· Limited quantities (LQ)	5 kg
· Excepted quantities (EQ)	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.	
· 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. 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

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· **Version number of previous version:**

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· **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.**