


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
- **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:** Not applicable.
- **vPvB:** Not applicable.

* SECTION 3: Composition/information on ingredients

- **3.1 Chemical characterisation: 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	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	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 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.

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
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Additional information about design of technical facilities:** No further data; see item 7.

Ingredients with limit values that require monitoring at the workplace:

128-37-0 Butylated hydroxytoluene

WEL (Great Britain) Long-term value: 10 mg/m³

67-56-1 methanol

WEL (Great Britain) Short-term value: 333 mg/m³, 250 ppm
Long-term value: 266 mg/m³, 200 ppm
Sk

IOELV (EU) Long-term value: 260 mg/m³, 200 ppm
Skin

· DNELs

128-37-0 Butylated hydroxytoluene

Dermal DNEL Longterm System 0.5 mg/kg bw/day (Worker)

Inhalative DNEL Longterm System 3.5 mg/m³ (Worker)

67-56-1 methanol

Dermal DNEL Longterm System 40 mg/kg bw/day (Worker)

Inhalative DNEL Longterm System 260 mg/m³ (Worker)

· PNECs

128-37-0 Butylated hydroxytoluene

PNEC Marinewater sed 0.00996 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 0.0996 mg/kg sed dw (-)

PNEC Soil 0.04769 mg/kg soil dw (-)

PNEC STP 0.17 mg/l (-)

67-56-1 methanol

PNEC Marinewater sed 7.7 mg/kg sed dw (-)

PNEC Freshwater 20.8 mg/l (AF 10)

PNEC Freshwater sed 77 mg/kg sed dw (-)

PNEC Soil 100 mg/kg soil dw (AF 10)

PNEC STP 100 mg/l (AF 10)

PNEC Marinewater 2.08 mg/l (AF 100)

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

· 8.2 Exposure controls

· 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 P2

· Protection of hands:

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.

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· **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 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**

· **Appearance:**

- **Form:** Solid
- **Colour:** Not determined.
- **Odour:** Characteristic
- **Odour threshold:** Not determined.

· **pH-value:** Not applicable.

· **Change in condition**

- **Melting point/freezing point:** 69.8 °C
- **Initial boiling point and boiling range:** 265 °C
Not applicable.

· **Flash point:** 127 °C

· **Flammability (solid, gas):** Product is not flammable.

· **Decomposition temperature:** Not determined.

· **Auto-ignition temperature:** Not determined.

· **Explosive properties:** Product is not explosive. However, formation of explosive air/dust mixtures are possible.

· **Explosion limits:**

- **Lower:** Not determined.
- **Upper:** Not determined.

· **Vapour pressure:** Not applicable.

· **Density at 20 °C:** 1.03 g/cm³

- **Bulk density at 20 °C:** 650 kg/m³
- **Relative density** Not determined.
- **Vapour density** Not applicable.
- **Evaporation rate** Not applicable.

· **Solubility in / Miscibility with water at 20 °C:** 0.00076 g/l

· **Partition coefficient: n-octanol/water:** 5.1 log POW

· **Viscosity:**

- **Dynamic:** Not applicable.
- **Kinematic:** Not applicable.

· **9.2 Other information** No further relevant information available.

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.

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- **10.6 Hazardous decomposition products:** No hazardous decomposition products if used and stored according to specifications.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **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	>5,000 mg/kg (rattus)
Dermal	LD50	>5,000 mg/kg (cuniculosus)

- **Primary irritant effect:**
- **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.
- **Additional toxicological information:**
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **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.

* 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

LC50 / 96h	15,400 mg/l (lepomis macrochirus)
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- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** 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.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

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**
- **ADR, IMDG, IATA** UN3077

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<ul style="list-style-type: none"> · 14.2 UN proper shipping name · ADR · IMDG · IATA 	<p>UN3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Butylated hydroxytoluene)</p> <p>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Butylated hydroxytoluene), MARINE POLLUTANT</p> <p>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Butylated hydroxytoluene)</p>
<ul style="list-style-type: none"> · 14.3 Transport hazard class(es) · ADR  <ul style="list-style-type: none"> · Class · Label 	<p>9 (M7) Miscellaneous dangerous substances and articles.</p> <p>9</p>
<ul style="list-style-type: none"> · IMDG, IATA  <ul style="list-style-type: none"> · Class · Label 	<p>9 Miscellaneous dangerous substances and articles.</p> <p>9</p>
<ul style="list-style-type: none"> · 14.4 Packing group · ADR, IMDG, IATA 	<p>III</p>
<ul style="list-style-type: none"> · 14.5 Environmental hazards: · Marine pollutant: · Special marking (ADR): · Special marking (IATA): 	<p>Product contains environmentally hazardous substances: Butylated hydroxytoluene</p> <p>Yes</p> <p>Symbol (fish and tree)</p> <p>Symbol (fish and tree)</p> <p>Symbol (fish and tree)</p>
<ul style="list-style-type: none"> · 14.6 Special precautions for user · Stowage Category · Stowage Code 	<p>Warning: Miscellaneous dangerous substances and articles.</p> <p>A</p> <p>SW23 When transported in BK3 bulk container, see 7.6.2.12 and 7.7.3.9.</p>
<ul style="list-style-type: none"> · 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code 	<p>Not applicable.</p>
<ul style="list-style-type: none"> · Transport/Additional information: · ADR · Limited quantities (LQ) · Excepted quantities (EQ) · Transport category · Tunnel restriction code · RID / GGVSEB: · IMDG · Limited quantities (LQ) · Excepted quantities (EQ) 	<p>5 kg</p> <p>Code: E1</p> <p>Maximum net quantity per inner packaging: 30 g</p> <p>Maximum net quantity per outer packaging: 1000 g</p> <p>3</p> <p>E</p> <p>like ADR</p> <p>5 kg</p> <p>Code: E1</p> <p>Maximum net quantity per inner packaging: 30 g</p> <p>Maximum net quantity per outer packaging: 1000 g</p>

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 100 t

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· **Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t

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

- **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
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.**