

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

1.1 Product identifier

- Trade name: **PERGASLOW BK-100**
- CAS Number: 98-29-3
- EC number: 202-653-9
- Registration number: 01-2119548368-28
- 1.2 Relevant identified uses of the substance or mixture and uses advised against
No further relevant information available.

1.3 Application of the substance / the mixture

Inhibitor
For industrial use

1.4 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

1.5 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 / : Mr. Christoph Wilting, e-mail: c.wilting@pergan.com
Security of labour

1.6 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

Acute Tox. 4	H302	Harmful if swallowed.
Acute Tox. 4	H312	Harmful in contact with skin.
Skin Corr. 1B	H314	Causes severe skin burns and eye damage.
Eye Dam. 1	H318	Causes serious eye damage.
Skin Sens. 1	H317	May cause an allergic skin reaction.
Aquatic Acute 1	H400	Very toxic to aquatic life.
Aquatic Chronic 2	H411	Toxic to aquatic life with long lasting effects.

2.2 Label elements

Labelling according to

Regulation (EC) No 1272/2008

Hazard pictograms

The substance is classified and labelled according to the CLP regulation.



GHS05 GHS07 GHS09

Signal word

Danger

Hazard-determining components of labelling:

Hazard statements

4-tert-butylpyrocatechol
H302+H312 Harmful if swallowed or in contact with skin.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H400 Very toxic to aquatic life.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P260 Do not breathe dusts or mists.
P264 Wash thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards

Results of PBT and vPvB assessment

- PBT: Not applicable.

Trade name: **PERGASLOW BK-100**


(Contd. of page 1)

· vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

- **3.1 Chemical characterisation: Substances**
- CAS No. Description 98-29-3 4-tert-butylpyrocatechol
- Identification number(s)
- EC number: 202-653-9


SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:** Immediately remove any clothing soiled by the product. Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
-  Take care of personal protection for the first aider.
- **After inhalation:** In case of unconsciousness place patient stably in side position for transportation. Take affected persons into fresh air and keep quiet.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly. Immediately remove contaminated clothing.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** Call for a doctor immediately. Drink plenty of water and provide fresh air. Call for a doctor immediately.
- **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.
- **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!

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
- **6.2 Environmental precautions:** Wear protective equipment. Keep unprotected persons away. Inform respective authorities in case of seepage into water course or sewage system.
-  Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:** Use neutralising agent. Dispose contaminated material as waste according to item 13. Ensure adequate ventilation. 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** Thorough dedusting.

(Contd. on page 3)

Trade name: **PERGASLOW BK-100**

(Contd. of page 2)

- 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.
Avoid contact with skin and eyes.
While using do not eat, drink or smoke.
- **Information about fire - and explosion protection:** No special measures required.
 - **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:** 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:** Keep container tightly sealed.
Storage in a collecting room is required.
Store under lock and key and out of the reach of children.
 - **Recommended storage temperature (To maintain quality):** max.: +30 °C
 - **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:** Not required.

· **DNELs**



98-29-3 4-tert-butylpyrocatechol

Inhalative	DNEL Longterm System	1.6 mg/m ³ (Worker)
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· **PNECs**

98-29-3 4-tert-butylpyrocatechol



PNEC Freshwater	0.00012 mg/l (AF 1.000)
PNEC Freshwater sed	0.00069 mg/kg sed dw (-)
PNEC Marinewater	0.000012 mg/l (AF 10.000)
PNEC Marinewater sed	0.000069 mg/kg sed dw (-)
PNEC STP	0.16 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.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
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:** In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
Use suitable respiratory device when it exceed exposure limit and when insufficiently ventilated.
-  Filter P2
- **Protection of hands:** 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.

(Contd. on page 4)
GB

Trade name: **PERGASLOW BK-100**

(Contd. of page 3)

<ul style="list-style-type: none"> · Penetration time of glove material · Eye protection: · Body protection: 	<p>Butyl rubber, BR Fluorocarbon rubber (Viton) Nitrile rubber, NBR Neoprene</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

· 9.1 Information on basic physical and chemical properties	
· General Information	
· Appearance:	
· Form:	Flakes
· Colour:	Yellow tint
· Odour:	Phenol-like
· Odour threshold:	Not determined.
· pH-value:	Not applicable.
· Change in condition	
· Melting point/freezing point:	55-58 °C
· Initial boiling point and boiling range:	290 °C
· Flash point:	158 °C
· Flammability (solid, gas):	Product is not flammable.
· Decomposition temperature:	Not determined.
· Auto-ignition temperature:	Not determined.
· Explosive properties:	Product does not present an explosion hazard.
· Explosion limits:	
· Lower:	Not determined.
· Upper:	Not determined.
· Vapour pressure at 25 °C:	0.0003 hPa
· Density:	Not determined.
· Bulk density at 20 °C:	410 kg/m ³
· Relative density	Not determined.
· Vapour density	Not applicable.
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with	
· water at 20 °C:	4.2 g/l
· Partition coefficient: n-octanol/water: not determined	
· 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	No further relevant information available.
· 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.

(Contd. on page 5)
GB

Trade name: **PERGASLOW BK-100**

(Contd. of page 4)

- **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 toxicological effects

- **Acute toxicity** Harmful if swallowed or in contact with skin.

· LD/LC50 values relevant for classification:

98-29-3 4-tert-butylpyrocatechol

Oral	LD50	815 mg/kg (rattus)
Dermal	LD50	1331 mg/kg (rattus)

- **Primary irritant effect:**
 - **Skin corrosion/irritation** Causes severe skin burns and eye damage.
 - **Serious eye damage/irritation** Causes serious eye damage.
- **Respiratory or skin sensitisation** May cause an allergic skin reaction.
- **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:


98-29-3 4-tert-butylpyrocatechol

EC50 / 48h	0.48 mg/l (daphnia magna)
LC50 / 96h	0.12 mg/l (brachydanio rerio)

- **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.
- **Ecotoxicological effects:**
 - **Remark:** Toxic for fish
- **Additional ecological information:**
 - **General notes:** Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Must not reach sewage water or drainage ditch undiluted or unneutralised.
Danger to drinking water if even small quantities leak into the ground.
Also poisonous for fish and plankton in water bodies.
Toxic for aquatic organisms
- **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

- **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.
 - **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

Trade name: **PERGASLOW BK-100**

(Contd. of page 5)

SECTION 14: Transport information

<ul style="list-style-type: none"> · 14.1 UN-Number · ADR, IMDG, IATA 	UN3261
<ul style="list-style-type: none"> · 14.2 UN proper shipping name · ADR · IMDG · IATA 	3261 CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (4-tert-BUTYLPYROCATECHOL) CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (4-tert-BUTYLPYROCATECHOL), MARINE POLLUTANT CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (4-tert-BUTYLPYROCATECHOL)
<ul style="list-style-type: none"> · 14.3 Transport hazard class(es) · ADR  <ul style="list-style-type: none"> · Class · Label 	8 (C4) Corrosive substances. 8
<ul style="list-style-type: none"> · IMDG  <ul style="list-style-type: none"> · Class · Label 	8 Corrosive substances. 8
<ul style="list-style-type: none"> · IATA  <ul style="list-style-type: none"> · Class · Label 	8 Corrosive substances. 8
<ul style="list-style-type: none"> · 14.4 Packing group · ADR, IMDG, IATA 	II
<ul style="list-style-type: none"> · 14.5 Environmental hazards: · Marine pollutant: · Special marking (ADR): 	Product contains environmentally hazardous substances: 4-tert-BUTYLPYROCATECHOL Yes Symbol (fish and tree) Symbol (fish and tree)
<ul style="list-style-type: none"> · 14.6 Special precautions for user · Danger code (Kemler): · EMS Number: · Segregation groups 	Warning: Corrosive substances. 80 F-A,S-B Acids
<ul style="list-style-type: none"> · 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code 	Not applicable.
<ul style="list-style-type: none"> · Transport/Additional information: 	
<ul style="list-style-type: none"> · ADR · Limited quantities (LQ) · Excepted quantities (EQ) · Transport category · Tunnel restriction code 	1 kg Code: E2 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 500 g 2 E
<ul style="list-style-type: none"> · RID / GGVSEB: 	like ADR
<ul style="list-style-type: none"> · IMDG · Limited quantities (LQ) · Excepted quantities (EQ) 	5 kg Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g

Trade name: **PERGASLOW BK-100**

(Contd. of page 6)

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

- **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 européen sur le transport 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
 - Acute Tox. 4: Acute toxicity – Category 4
 - Skin Corr. 1B: Skin corrosion/irritation – Category 1B
 - Eye Dam. 1: Serious eye damage/eye irritation – Category 1
 - Skin Sens. 1: Skin sensitisation – Category 1
 - Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
 - Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
- *** Data compared to the previous version altered.**