


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.
- **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**
- 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:**
- 4-tert-butylpyrocatechol
- **Hazard statements**
- 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.
- H410 Very 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/hearing protection.
- P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or 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:** This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

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· **vPvB:** This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

SECTION 3: Composition/information on ingredients

- **3.1 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 section 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.

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SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
 - Thorough dedusting.
 - 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.
 - Store under lock and key and out of the reach of children.
 - Storage in a collecting room is required.
 - **Recommended storage temperature (To maintain quality):**
 - max.: +30°C
 - **Storage class:**
 - 8A
- **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:**
 - Not required.

· **DNELs****98-29-3 4-tert-butylpyrocatechol**

Inhalative | DNEL Longterm System | 1,6 mg/m3 (Worker)

· **PNECs****98-29-3 4-tert-butylpyrocatechol**

PNEC Marinewater sed	0,00069 mg/kg sed dw (-)
PNEC Freshwater	0,0012 mg/l (AF 100)
PNEC Freshwater sed	0,0069 mg/kg sed dw (-)
PNEC STP	0,16 mg/l (AF 100)
PNEC Marinewater	0,00012 mg/l (AF 1.000)

- **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.
 - 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.






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· Hand protection	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
· Material of gloves	Protective 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. Butyl rubber, BR Fluorocarbon rubber (Viton) Nitrile rubber, NBR Neoprene
· 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:	Yellow tint
· Odour:	Phenol-like
· Odour threshold:	Not determined.
· Melting point/freezing point:	55-58 °C
· Boiling point or initial boiling point and boiling range	290 °C
· Flammability	Product is not flammable.
· Lower and upper explosion limit	
· Lower:	Not determined.
· Upper:	Not determined.
· Flash point:	158 °C
· Decomposition temperature:	Not determined.
· pH	Not applicable.
· Viscosity:	
· Kinematic viscosity	Not applicable.
· Dynamic:	Not applicable.
· Solubility	
· water at 20 °C:	4,2 g/l
· Partition coefficient n-octanol/water (log value)	not determined
· Vapour pressure at 25 °C:	0,0003 hPa
· Density and/or relative density	
· Density:	Not determined.
· Relative density	Not determined.
· Bulk density at 20 °C:	410 kg/m ³
· Vapour density	Not applicable.
· Particle characteristics	

See section 3.

· 9.2 Other information	No further relevant information available.
· Appearance:	
· Form:	Flakes
· Important information on protection of health and environment, and on safety.	
· Ignition temperature:	Not determined.
· Explosive properties:	Product does not present an explosion hazard.
· 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

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· 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	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.
· 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 hazard classes as defined in Regulation (EC) No 1272/2008

· 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	1.331 mg/kg (rattus)

· 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.
· 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

None of the ingredients is listed.

SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic toxicity:

98-29-3 4-tert-butylpyrocatechol

LC50 / 96h	0,12 mg/l (brachydanio rerio)
EC50 / 48h	0,48 mg/l (daphnia magna)

· 12.2 Persistence and degradability

· Degree of elimination:

· Classification:

98-29-3 4-tert-butylpyrocatechol

Degradation (Evidence for inherent biodegradability.)


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· 12.3 Bioaccumulative potential	
· Partition coefficient: nOctanol/water: [Log Kow]	1,98 (25°C)
· 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	
	The product does not contain substances with endocrine disrupting properties.
· 12.7 Other adverse effects	
	No further relevant information available.
· Remark:	Toxic for fish
· Additional ecological information:	
· General notes:	Also poisonous for fish and plankton in water bodies. Toxic for aquatic organisms Must not reach sewage water or drainage ditch undiluted or unneutralised. 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	
· 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.

SECTION 14: Transport information

· 14.1 UN number or ID number	
· ADR, IMDG, IATA	UN3261
· 14.2 UN proper shipping name	
· ADR	UN3261 CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (4-tert-BUTYLPYROCATECHOL), ENVIRONMENTALLY HAZARDOUS
· IMDG	CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (4-tert-BUTYLPYROCATECHOL), MARINE POLLUTANT
· IATA	CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (4-tert-BUTYLPYROCATECHOL)
· 14.3 Transport hazard class(es)	
· ADR	
	
· Class	8 (C4) Corrosive substances.
· Label	8
· IMDG	
	
· Class	8 Corrosive substances.
· Label	8
· IATA	
	
· Class	8 Corrosive substances.

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· Label	8
· 14.4 Packing group · ADR, IMDG, IATA	II
· 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)
· 14.6 Special precautions for user · Hazard identification number (Kemler code): · EMS Number: · Segregation groups · Stowage Category	Warning: Corrosive substances. 80 F-A, S-B (SGG1) Acids B
· 14.7 Maritime transport in bulk according to IMO instruments	Not applicable.
· Transport/Additional information: · ADR · Limited quantities (LQ) · Excepted quantities (EQ) · Transport category · Tunnel restriction code · RID / GGVSEB: · IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	 1 kg Code: E2 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 500 g 2 E like ADR 5 kg 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

· 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.

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- **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
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.**