

**Trade name: Hardener brown**  
**Safety data sheet in accordance with 91/155/EEC**  
 Date of printing : 22.02.2000

**01. Identification**

01.01 Product details	
01.01.01. Trade name	Härterpaste braun / Hardener paste brown
01.02. Identification of the manufacturer	
01.02.01. Address	ERKODENT Erich Kopp GmbH, Siemensstr. 3, D-72285 Pfalzgrafenweiler
01.02.02. Information provided by	Chemie
01.02.03. Telephone number	Tel.: (+49) (0) 7445 / 85 01 - 0, Fax: (+49) (0) 7445 / 20 92
01.02.04. Emergency telephone number :	

**02. Composition/information on ingredients**

02.01. Chemical characterization	Hardener
02.02. Substance / product identification	
02.03. Hazardous ingredients	Tetrakis(2-butoxyethyl)orthosilikat CAS no.: 18765-38-3; >20%
02.04. Additional information	-

**03. Hazards possibilities**

03.01. Hazard designation	Flammable Irritating to skin.
03.02. Particular information pertaining specific risk for human / environment	-

**04. First aid measures**

04.01. General Information	
04.02. First aid measures / inhalation.	Ensure supply of fresh air. In the event of symptoms take medical treatment.
04.03. First aid measures / skin contact.	In case of contact with skin wash off immediately with soap and water. Consult a doctor if skin irritation persists.
04.04. First aid measures / eye contact.	In case of contact with the eyes rinse thoroughly with plenty of water or with an eye-cleaning solution. In case of irritation consult an oculist.
04.05. First aid measures / ingestion..	Rinse out mouth and give plenty of water to drink. Do not induce vomiting - aspiration hazard. Seek medical advice immediately.
04.06. Advice to doctor	-

**05. Fire-fighting measures**

05.01. Suitable extinguishing media	water spray jet carbon dioxide. dry powder foam
05.02. Extinguishing media that must not be used for safety reasons	Full water jet
05.03. Special exposure hazards arising from the substance or preparation itself, its combustion products or from resulting gases.	In the event of fire the following can be released: Carbon monoxide (CO) Carbon dioxide (CO <sub>2</sub> ) Risk of formation of toxic pyrolysis products.
05.04. Special protective equipment for firefighting	Use self-contained breathing apparatus.
05.05. Additional informations (chapter 5)	-

**06. Accidental release measures**

06.01. personal precautions.	High risk of slipping due to leakage/spillage of product. Avoid contact with skin, eyes and clothing.
06.02. environmental precautions.	Do not allow to enter drains.
06.03. methods for cleaning up/taking up.	Take up with absorbent material (eg sand, kieselguhr, universal binder). Dispose of as prescribed.
06.04. Additional informations (chapter 6).	-

**07. Handling and storage**

07.01. Handling	
07.01.01. Hints on safe handling.	Observe the usual precautions for handling chemicals.
07.01.02. Hints for protection against fire and explosion.	-
07.02. Storage	
07.02.01. Requirements for storage rooms and vessels.	
07.02.02. Hints on storage assembly.	Keep away from flammable substances.
07.02.03. Further information on storage conditions.	Keep container tightly closed, cool and dry. < 30 °C
07.02.04. Storage category	-
07.02.05. Storage stability	-
07.02.06. Recommended storage temperature	-

**08. Exposure controls/personal protection**

08.01. Additional hints on technical system design.	-
08.02. Ingredients with occupational exposure limits to be monitored	-
08.03. Personal protective equipment Personal protective equipment Persönliche Schutzausrüstung	
08.03.01. Respiratory protection	-
08.03.02. Hand protection	Protective gloves
08.03.03. Eye protection	safety glasses
08.03.04. Skin protection	light protective clothing
08.03.05. General protective and hygiene measures	Avoid frequent or prolonged contact with skin.

**09. Physical and chemical properties**

09.01. Appearance.	
09.01.01. Form	Pasty
09.01.02. Colour	brown
09.01.03. Odour	aromatic
09.02. Safety data	

## Changes in physical state

	-	°C	
Flash point	40	°C	
Ignition temperature	-	°C	
self ignition			
explosion limits	-		
Upper explosion limit	-		
Vapour pressure	< 2	hpa	20 °C
Density	0,95	g/cm3	
solubility			
Hydrolysed		g/l	20 °C
Soluble in		g/l	
pH-Value			
Viscosity			
Konuspenetration	300	mm/l	20 °C
09.03. Other information ( chapter 9.)	-		

**10. Stability and reactivity**

10.01. Hazardous reactions	Reactions with alkalis.
10.02. Hazardous decomposition products	Butoxyethanol
10.03. Thermal decomposition	-
10.04. Additional informations (chapter 10)	-

**11. Toxicological information**

11.01. Acute toxicity	
11.01.01. Acute oral toxicity	-
11.01.02. Acute dermal toxicity	-
11.01.03. Acute inhalational toxicity	-
11.02. Irritant/corrosive effects	
11.02.01. Irritant effect on skin	slightly irritant
11.02.02. Irritant effect on eyes	irritant
11.03. Sensitization	-
11.04. Effects after repeated or prolonged exposition (subacute, subchronic, cronic)	The product can cause skin and eye irritation.
11.08. Other information (chapter 11.)	-
11.09. Experiences made in practice.	-
11.10. General remarks.	-

**12. Ecological information**

12.01. Data on elimination ( persistence and degradability) :	
12.01.01. Physico-chemical eliminability	-
12.01.02. Biodegradability	-
12.02. Behaviour in environment compartments.	-
12.03. Ecotoxic effect	
12.03.01. Fish toxicity	-
12.03.02. Daphnia toxicity	-
12.03.03. Algae toxicity	-
12.03.04. Bacteria toxicity	-
12.04. Further ecological information	Ecological data are not available. Do not allow product to reach the drainage.

**13. Disposal considerations**

13.01. Disposal considerations	
13.01.01. Disposal / product	-
13.01.02. Disposal / contaminated packagings.	Completely emptied packagings can be given for recycling.
13.02. Waste code no. / name of waste (for Germany only)	-

**14. Transport information**

14.01. Land transport ADR/RID	
14.01.01. Class	-
14.01.02. Number/letter	-
14.01.03. Hazard number (Kemler-number)	-
14.01.04. UN number	-
14.01.05. Technical name	-
14.01.06. Remarks	-

14.02. Inland waterways transport ADN/ADNR	
14.02.01. Class	-
14.02.02. Number/letter	-
14.02.03. Category	-
14.02.04. Technical name	-
14.02.05. Remarks	-

14.03. Marine transport IMDG/GGVSee	
14.03.01. Class	-
14.03.02. UN number	-
14.03.03. page	-
14.03.04. EmS	-
14.03.05. MFAG	-
14.03.06. MARINE POLLUTANT	-
14.03.07. Correct technical name	-
14.03.08. Remarks	-

14.04. Air transport ICAO/IATA	
14.04.01. Class	-
14.04.02. UN number	-
14.04.03. page	-
14.04.04. Correct technical name	-
14.04.05. Remarks	-

14.05. Other information (chapter 14.)	-
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## 15. Regulatory information

15.01. Labelling in accordance with GefStoffV/EC	
The product is classified and labelled in accordance with EC directives/German regulations on dangerous substances.	

15.01.02. Hazard symbols	Xi	Irritant
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R phrases	R 10	Flammable
	R 38	Irritating to skin.

S phrases	S 37/39	Wear suitable gloves and eye/face protection.
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15.02. Other regulations	
15.02.01. Restriction of occupation.	-
15.02.02. Decree for case of interference / remarks (for Germany only).	-
15.02.03. Classification according to VbF / remarks (for Germany only).	Class A III
15.02.04. TA-Luft (Ger.)	Class III 3.1.7 > 20 %
15.02.05. Water Hazard Class (Ger.)	-
15.02.06. Other regulations, restrictions and prohibition regulations (for Germany only)	-

## 16. Other information (chapter 16.).

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(n.a. = Not applicable; n.b.= not determined)

This information is based on our present state of knowledge. It should not therefore be construed as guaranteeing specific properties of the products described or their suitability for a particular application.