

Safety data sheet

According to 91/155 EEC

Printing date 22.11.2010

Version number 25

Revision: 22.11.2010





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

- **Product identifier**
- **Trade name:** K2000 Cement
- **Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the preparation** Adhesives
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Forbo Siegling Pty. Ltd
Factory 1, 124-126 Rodeo Drive
Dandenong South
Victoria 3175. Australia
Ph.: 1300137933
Fax: 1300137944
- **Information department:**
Chemical Laboratory
Email: Claudius.Hayduk@forbo.com
- **Emergency telephone number:**
(001) 352 323 3500 (Transport hazardous materials)
++49 (0) 511-6704-214

2 Composition/information on ingredients

- **Description:** Mixture consisting of the following components.


- **Dangerous components:**

CAS: 108-46-3 EINECS: 203-585-2	resorcinol	 Xn R22;  Xi R36/38;  N R50	50-70%
CAS: 64-17-5 EINECS: 200-578-6	ethanol	 F R11	25-50%


- **Additional information** For the wording of the listed risk phrases refer to section 16.

3 Hazards identification


- **Classification of the substance or mixture**
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**

 Xn; Harmful

R22: Harmful if swallowed.

 Xi; Irritant

R36/38: Irritating to eyes and skin.

 N; Dangerous for the environment

R50: Very toxic to aquatic organisms.

R10: Flammable.

- **Information concerning particular hazards for human and environment:**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

- **Classification system:**

The classification was made according to the latest editions of the EU-lists, and expanded upon from company and literature data.

- **Label elements**

- **Labelling according to EU guidelines:**

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials

(Contd. on page 2)

Safety data sheet

According to 91/155 EEC

Printing date 22.11.2010

Version number 25

Revision: 22.11.2010

Trade name: K2000 Cement

(Contd. of page 1)

- **Code letter and hazard designation of product:**



Xn Harmful
N Dangerous for the environment

- **Hazard-determining components of labelling:**

resorcinol

- **Risk phrases:**

- 10 Flammable.
- 22 Harmful if swallowed.
- 36/38 Irritating to eyes and skin.
- 50 Very toxic to aquatic organisms.

- **Safety phrases:**

- 7 Keep container tightly closed.
- 16 Keep away from sources of ignition - No smoking.
- 23 Do not breathe fumes.
- 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- 29 Do not empty into drains.
- 57 Use appropriate container to avoid environmental contamination.

- **Information pertaining to particular dangers for man and environment**

- **Safety phrases:**

- 7 Keep container tightly closed.
- 16 Keep away from sources of ignition - No smoking.
- 23 Do not breathe fumes.
- 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- 29 Do not empty into drains.
- 57 Use appropriate container to avoid environmental contamination.

- **Other hazards**

- **Results of PBT and vPvB assessment**

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

4 First aid measures

- **Description of first aid measures**

- **General information**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

- **After inhalation**

Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.

- **After skin contact** Immediately wash with water and soap and rinse thoroughly.

- **After eye contact**

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

- **After swallowing** Call for a doctor immediately.

- **Information for doctor** MSDB

5 Firefighting measures

- **Extinguishing media**

- **Suitable extinguishing agents**

Alcohol resistant foam



CO₂, sand, extinguishing powder. Do not use water.

- **For safety reasons unsuitable extinguishing agents**

Water.

(Contd. on page 3)

Safety data sheet According to 91/155 EEC

Printing date 22.11.2010

Version number 25

Revision: 22.11.2010

Trade name: K2000 Cement

(Contd. of page 2)

- Water with full jet.
- **Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Keep away from ignition sources



Wear protective equipment. Keep unprotected persons away.

- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents
- **Reference to other sections**
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling**
- **Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace.
- **Information about protection against explosions and fires:**



Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:** Keep receptacle tightly sealed.

8 Exposure controls/personal protection

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

- **Components with limit values that require monitoring at the workplace:**

108-46-3 resorcinol

NES (Australia)	Short-term value: 90 mg/m ³ , 20 ppm Long-term value: 45 mg/m ³ , 10 ppm
-----------------	---

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes and skin.

(Contd. on page 4)

Safety data sheet

According to 91/155 EEC

Printing date 22.11.2010

Version number 25

Revision: 22.11.2010

Trade name: K2000 Cement

(Contd. of page 3)

- **Breathing equipment:**



In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

- **Protection of hands:**

Solvent resistant gloves

Protective gloves.

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

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

Natural rubber, NR

Butyl rubber, BR

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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **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:** Safety glasses

- **Body protection:** Protective work clothing.

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form:	Fluid
Colour:	Colourless
Odour:	Odourless
Odour threshold:	Not determined.

- **pH-value:** Not determined.

- **Change in condition**

Melting point/Melting range:	Melting point > 120°C
Boiling point/Boiling range:	78°C

- **Flash point:** > 28°C

- **Ignition temperature:** 425°C

- **Decomposition temperature:** Not determined.

- **Self igniting** Not determined.

- **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

- **Explosion limits:**

Lower:	3.5 Vol %
Upper:	15.0 Vol %

- **Vapour pressure at 20°C:** 59 hPa

Density at 20°C:	0.975 g/cm ³
Relative density	Not determined.
Vapour density	Not determined.
Evaporation rate	Not determined.

- **Solubility in / Miscibility with Water:**

Not miscible or difficult to mix

(Contd. on page 5)

Safety data sheet

According to 91/155 EEC

Printing date 22.11.2010

Version number 25

Revision: 22.11.2010

Trade name: K2000 Cement

(Contd. of page 4)

- | | |
|---|---------------------|
| · Segregation coefficient (n-octanol/water): Not determined. | |
| · Viscosity: | |
| dynamic at 20°C: | 225 mPas |
| kinematic at 20°C: | 300 s (DIN 53211/4) |
| · Solvent content: | |
| Organic solvents: | 42.4 % |
| · Solids content: 51.5 % | |
| · Other information No further relevant information available. | |

10 Stability and reactivity

- **Reactivity**
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

LD/LC50 values that are relevant for classification:

108-46-3 resorcinol

Oral	LD50	301 mg/kg (rat)
Dermal	LD50	3360 mg/kg (rabbit)

- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Harmful
Irritant

12 Ecological information

- **Toxicity**

Acquatic toxicity:

108-46-3 resorcinol

Sensitisation	EC50/24h	107.6 mg/l (daphnia) Quelle : IUCLID
	LC50/96h	34.7 mg/l (Goldorfe) Quelle : Hoechst

- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Ecotoxic effects:**
- **Remark:** Very toxic for fish

(Contd. on page 6)

-AU-

Safety data sheet

According to 91/155 EEC

Printing date 22.11.2010

Version number 25

Revision: 22.11.2010

Trade name: K2000 Cement

(Contd. of page 5)

- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Also poisonous for fish and plankton in water bodies.
Very toxic for aquatic organisms
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**



Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- **Waste disposal key:** 080409

- **European waste catalogue**

08 04 09*	waste adhesives and sealants containing organic solvents or other dangerous substances
-----------	--

- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **Land transport ADR/RID (cross-border)**



- **ADR/RID class:** 3 Flammable liquids.
- **Danger code (Kemler):** 36
- **UN-Number:** 1992
- **Packaging group:** III
- **Label** 3+6.1
- **Special marking:** Symbol (fish and tree)
- **UN proper shipping name:** 1992 FLAMMABLE LIQUID, TOXIC, N.O.S. (ETHANOL (ETHYL ALCOHOL), RESORCINOL)
- **Tunnel restriction code** D/E

- **Maritime transport IMDG:**



- **IMDG Class:** 3
- **UN Number:** 1992
- **Label** 3+6.1
- **Packaging group:** III
- **EMS Number:** F-E,S-D
- **Marine pollutant:** Yes
Symbol (fish and tree)

(Contd. on page 7)

-AU-

Safety data sheet

According to 91/155 EEC

Printing date 22.11.2010

Version number 25

Revision: 22.11.2010

Trade name: K2000 Cement

(Contd. of page 6)

· **Propper shipping name:** FLAMMABLE LIQUID, TOXIC, N.O.S. (ETHANOL (ETHYL ALCOHOL), RESORCINOL)

· **Air transport ICAO-TI and IATA-DGR:**



· **ICAO/IATA Class:** 3
 · **UN/ID Number:** 1992
 · **Label:** 3+6.1
 · **Packaging group:** III
 · **Propper shipping name:** FLAMMABLE LIQUID, TOXIC, N.O.S. (ETHANOL, RESORCINOL)

· **Environmental hazards:** Product contains environmentally hazardous substances: resorcinol
 · **Special precautions for user** Warning: Flammable liquids.
 · **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **Australian Inventory of Chemical Substances**

108-46-3	resorcinol
78-93-3	butanone

· **Standard for the Uniform Scheduling of Drugs and Poisons**

78-93-3	butanone	S5
---------	----------	----

· **Markings according to EU guidelines:**

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials

· **Code letter and hazard designation of product:**



Xn Harmful
 N Dangerous for the environment

· **Hazard-determining components of labelling:**

resorcinol

· **Risk phrases:**

10 Flammable.
 22 Harmful if swallowed.
 36/38 Irritating to eyes and skin.
 50 Very toxic to aquatic organisms.

· **Safety phrases:**

7 Keep container tightly closed.
 16 Keep away from sources of ignition - No smoking.
 23 Do not breathe fumes.
 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 29 Do not empty into drains.
 57 Use appropriate container to avoid environmental contamination.

· **National regulations**

· **Technical instructions (air):**

Class	Share in %
II	0.4
NK	42.0

· **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

(Contd. on page 8)

Safety data sheet

According to 91/155 EEC

Printing date 22.11.2010

Version number 25

Revision: 22.11.2010

Trade name: K2000 Cement**· Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

(Contd. of page 7)

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

- R11 Highly flammable.
- R22 Harmful if swallowed.
- R36/38 Irritating to eyes and skin.
- R50 Very toxic to aquatic organisms.

· Department issuing MSDS: Chemical Laboratory**· Contact:**

C.Hayduk
Tel.-Nr. +49 511 6704 214
Fax-Nr. +49 511 6704 489
Mobil-Nr.+49 151 11741970

-AU-