Printing date 05.05.2009

Revision: 05.05.2009

1 Identification of substance:

- · Product details:
- · Trade name: Curil K2
- Elring article number: 532.215/534.501/534.714/036.129
- \cdot Application of the substance / the preparation Sealing compound
- Manufacturer/Supplier: ElringKlinger AG Max-Eyth-Straße 2 D-72581 Dettingen/Erms
- Informing department:
 2SEW Tel.: ++49/(0)7123/724-253
 E-mail: sdb@elringklinger.de
 Emergency information: Tel.: ++49/(0)7123/724-0 (8.00 16.00 CET)

2 Hazards identification

· Hazard designation:



F Highly flammable

· Information pertaining to particular dangers for man 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.

R 11 Highly flammable.

\cdot Classification system

The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies.

3 Composition/information on ingredients

· Chemical characterization

· Description:

Castor oil derivative (modified with phenolic resin) solved in Ethanol.

· Dangerous components:

Dangerous components.			
CAS: 64-17-5	ethanol	F; R 11	25-50%
EINECS: 200-578-6			
CAS: 98-54-4	4-tert-butylphenol	Xi, N; R 36/37/38-51/53	<0.5%
EINECS: 202-679-0			
Additional information For the wording of the listed risk phrases refer to section 16.			

4 First aid measures

· General information

- Instantly remove any clothing soiled by the product.
- Take affected persons into the open air.
- · After inhalation

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist. In case of unconsciousness bring patient into stable side position for transport.

- · After skin contact Instantly wash with water and soap and rinse thoroughly.
- After eye contact Rinse opened eye for several minutes under running water. Then consult doctor.
- · After swallowing

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; instantly call for medical help.

5 Fire fighting measures

· Suitable extinguishing agents

CO2, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

· For safety reasons unsuitable extinguishing agents Water with a full water jet.

(Contd. on page 2)

Printing date 05.05.2009

Trade name: Curil K2

Revision: 05.05.2009

(Contd. of page 1)

 \cdot Special hazards caused by the material, its products of combustion or resulting gases:

- Formation of poisonous gases during heating or in fires.
- Protective equipment: Wear self-contained breathing apparatus.
- · Additional information Collect contaminated fire fighting water separately. It must not enter drains.

6 Accidental release measures

- Person-related safety precautions: Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation Keep away from ignition sources
- Measures for environmental protection: Do not allow to enter drainage system, surface or ground water.
- *Measures for cleaning/collecting: Collect mechanically.*

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Ensure adequate ventilation. Dispose of the material collected according to regulations.

7 Handling and storage

· Handling

- Information for safe handling: Ensure good ventilation/exhaustion at the workplace. Use solvent-proof equipment. Avoid contact with skin or eyes.
- Information about protection against explosions and fires: Keep ignition sources away - Do not smoke.
- Fumes can combine with air to form an explosive mixture.
- · Storage
- Requirements to be met by storerooms and containers: Store in cool location.
- · Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Store in cool, dry conditions in well sealed containers.
- Store container in a well ventilated position.
- Protect from heat and direct sunlight.

8 Exposure controls and personal protection

- Additional information about design of technical systems: No further data; see item 7.
- · Components with limit values that require monitoring at the workplace:
- 64-17-5 ethanol
- WEL Long-term value: 1920 mg/m³, 1000 ppm
- silicon dioxide, chemically prepared
- OEL Long-term value: 1.5 mg/m³
- Additional information: The lists that were valid during the compilation were used as basis.
- · Personal protective equipment
- General protective and hygienic measures
 Wash hands during breaks and at the end of the work.
 Take off immediately all contaminated clothing
 Avoid contact with the eyes and skin.
 Do not eat, drink or smoke while working.
 Do not inhale gases / fumes / aerosols.
- Breathing equipment:
- Use breathing protection in case of insufficient ventilation. Short term filter device:
- Filter A
- Protection of hands: Solvent resistant gloves
- Material of gloves
- Butyl rubber, BR

(Contd. on page 3)

Printing date 05.05.2009

Trade name: Curil K2

Revision: 05.05.2009

(Contd. of page 2)

Recommended thickness of the material: $\geq 0.5 \text{ mm}$

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 trough 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:

· General Information	
Form:	Viscous
Colour:	Yellowbrown
Odour:	Like alcohol
· Change in condition	
Melting point/Melting range:	
Boiling point/Boiling range:	78°C
· Flash point:	17°C
· Ignition temperature:	425°C (DIN 51794)
· Self-inflammability:	Product is not selfigniting.
• Danger of explosion:	Product is not explosive. However, formation of explosive air/steam mixtures is possible.
· Critical values for explosion:	
Lower:	3.5 Vol %
Upper:	15.0 Vol %
· Vapour pressure at 20°C:	58 mbar (prEN 13016-1)
· Density at 20°C	1.04 g/cm3 (DIN 51757)
· Solubility in / Miscibility with Water:	Partly soluble
· Viscosity:	
dynamic at 20°C:	1200 - 1800 mPas
flow time at $20^{\circ}C$	>100 s (4 mm)
· Solvent separation test	<3 %

10 Stability and reactivity

• Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

• Dangerous reactions Reacts with alkaline metals Reacts with alkaline earth metals Reacts with strong oxidizing agents

• Dangerous products of decomposition: Carbon monoxide and carbon dioxide Irritant gases/vapours

11 Toxicological information

· Acute tox	cicity:		
· LD/LC50	values th	nat are relevant for classification:	
64-17-5 e	thanol		
Oral	LD50	3450 mg/kg (mouse)	
		3450 mg/kg (mouse) 6200 mg/kg (rat) 4070 mg/kg (rabbit)	
Dermal	LD50	4070 mg/kg (rabbit)	
		(Contd. or	n page 4)

Printing date 05.05.2009

Revision: 05.05.2009

(Contd. of page 3)

Trade name: Curil K2

Inhalative LC50/10h 37.68 mg/l (rat)

LC50/4 h 124.7 mg/l (rat)

· Primary irritant effect:

• on the skin: Irritant to skin and mucous membranes.

· on the eye: Irritant effect.

· Sensitization: No sensitizing effect known.

· Additional toxicological information:

Inhalation of concentrated vapours as well as oral intake will lead to anaesthesia-like conditions and headache, dizziness, etc.

12 Ecological information:

· Ecotoxical effects:

· Acquatic toxicity:

64-17-5 ethanol

EC50/48h 9268 mg/l (water-fly)

LC 50 8150 mg/l (leuciscus idus)

LC50/96h 14200 mg/l (Pimephales promelas)

· General notes:

At present there are no ecotoxicological assessments.

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 bodies or sewage system.

13 Disposal considerations

· Product:

· Recommendation

Take to special waste combustion plant.

Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Regulations of local authorities have to be followed.

· European waste catalogue

08 00 00 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS

wastes from MFSU of adhesives and sealants (including waterproofing products) 08 04 00

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

· Uncleaned packagings:

Recommendation:

Packagings that cannot be cleaned are to be disposed of in the same manner as the product. Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning. Non contaminated packagings can be treated like household garbage.

14 Transport information

· Land transport ADR/RID (cross-border)



· ADR/RID-GGVS/E Class: 3 (F1) Flammable liquids.

3

- · Kemler Number: 33 1170 · UN-Number:
- · Packaging group: Ш
- · Label
- Designation of goods:
- \cdot Limited quantities (LQ) LQ73
- · Transport category

(Contd. on page 5)

Printing date 05.05.2009

Revision: 05.05.2009

Trade name: Curil K2

	(Contd. of page 4)
· Tunnel restriction code	D/E
· Maritime transport IMD	G:
· IMDG Class:	3
· UN Number:	1170
· Label	3
· Packaging group:	III
· EMS Number:	F-E,S-D
• Marine pollutant:	No
· Correct technical name:	ETHANOL, SOLUTION
· Air transport ICAO-TI ar	nd IATA-DGR:
· ICAO/IATA Class:	3
· UN/ID Number:	1170
· Label	3
· Packaging group:	III
· Correct technical name:	ETHANOL, SOLUTION

15 Regulatory information

· Designation according to EC guidelines:

The product has been classified and labelled in accordance with EC Directives / Ordinance on Hazardous Materials (GefStoffV)

· Code letter and hazard designation of product:



F Highly flammable

• **Risk phrases:** 11 Highly flammable.

· Safety phrases:

- 2 Keep out of the reach of children.
- 7 Keep container tightly closed.
- 16 Keep away from sources of ignition No smoking.
- 51 Use only in well-ventilated areas.

56 Dispose of this material and its container to hazardous or special waste collection point.

· National regulations

• Technical instructions (air):

Class	Share in %
NK	25-50

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

16 Other information:

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant R-phrases

11 Highly flammable.

36/37/38 Irritating to eyes, respiratory system and skin.

51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

(Contd. on page 6)

Printing date 05.05.2009

Trade name: Curil K2

Department issuing data specification sheet: 2SEW
Contact: Mr. Anhorn
* Data compared to the previous version altered.

Revision: 05.05.2009

(Contd. of page 5)