

# Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 11/21/2007

Reviewed on 11/21/2007

## 1 Identification of substance

- **Product details**
- **Trade name:** *Curil*
- **Application of the substance / the preparation** *Sealing compound*
- **Manufacturer/Supplier:**  
ElringKlinger AG  
Max-Eyth-Straße 2  
D-72581 Dettingen/Erms
- **Information department:**  
2SEW Tel.: ++49/(0)7123/724-253  
E-mail: [sdb@elringklinger.de](mailto:sdb@elringklinger.de)
- **Emergency information:** Tel.: ++49/(0)7123/724-0 (8.00 - 16.00 CET)

## 2 Hazards identification

- **Hazard description:**



*Xi Irritant*  
*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.*  
*Has a narcotizing effect.*  
*Highly flammable.*  
*Irritating to eyes.*  
*May cause sensitization by skin contact.*  
*Vapours may cause drowsiness and dizziness*

- **Classification system:**

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

- **NFPA ratings (scale 0 - 4)**



*Health = 2*  
*Fire = 3*  
*Reactivity = 0*

- **WHMIS-ratings (scale 0 - 4)**



*Health = 1*  
*Fire = 3*  
*Reactivity = 0*

## 3 Composition/Data on components

- **Chemical characterization**
- **Description:** *Mixture of modified phenolic resins, dissolved in ethanol/ethylacetate*

- **Dangerous components:**

141-78-6	ethyl acetate	<i>Xi, F; R 11-36-66-67</i>	<i>10-25%</i>
64-17-5	ethanol	<i>F; R 11</i>	<i>10-25%</i>
71-36-3	butan-1-ol	<i>Xn, Xi; R 10-22-37/38-41-67</i>	<i>2.5-10%</i>
50-00-0	formaldehyde	<i>T, C; R 23/24/25-34-40-43</i>	<i>&lt;1%</i>

## 4 First aid measures

- **General information:** *Immediately remove any clothing soiled by the product.*
- **After inhalation:**  
*Take affected persons into fresh air and keep quiet.*  
*Seek medical treatment in case of complaints.*  
*In case of unconsciousness place patient stably in side position for transportation.*
- **After skin contact:**  
*Immediately wash with water and soap and rinse thoroughly.*

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- If skin irritation continues, consult a doctor.*
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
  - **After swallowing:**  
*Call a doctor immediately.*  
*Rinse out mouth and then drink plenty of water.*
  - **Information for doctor:**
  - **The following symptoms may occur:**  
*Headache*  
*Dizziness*  
*Dizziness*

## 5 Fire fighting measures

- **Suitable extinguishing agents:**  
*CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.*
- **For safety reasons unsuitable extinguishing agents:** *Water with full jet*
- **Special hazards caused by the material, its products of combustion or resulting gases:**  
*In case of fire, the following can be released:*  
*Carbon monoxide (CO)*  
*Formaldehyde*  
*Phenol*  
*In certain fire conditions, traces of other toxic gases cannot be excluded.*
- **Protective equipment:**  
*Wear self-contained respiratory protective device.*  
*Wear fully protective suit.*

## 6 Accidental release measures

- **Person-related safety precautions:**  
*Keep away from ignition sources*  
*Ensure adequate ventilation*  
*Wear protective equipment. Keep unprotected persons away.*
- **Measures for environmental protection:**  
*Do not allow to penetrate the ground/soil.*  
*Do not allow to enter sewers/ surface or ground water.*  
*Inform respective authorities in case of seepage into water course or sewage system.*
- **Measures for cleaning/collecting:**  
*Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).*  
*Ensure adequate ventilation.*  
*Dispose of the collected material according to regulations.*

## 7 Handling and storage

- **Handling:**
- **Information for safe handling:**  
*Keep receptacles tightly sealed.*  
*Ensure good ventilation/exhaustion at the workplace.*  
*Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).*  
*Use solvent-proof equipment.*
- **Information about protection against explosions and fires:**  
*Highly volatile, flammable constituents are released during processing.*  
*Keep ignition sources away - Do not smoke.*  
*Protect against electrostatic charges.*  
*Fumes can combine with air to form an explosive mixture.*
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**  
*Store in a cool location.*  
*Provide solvent resistant, sealed floor.*
- **Information about storage in one common storage facility:** *Store away from foodstuffs.*
- **Further information about storage conditions:**  
*Store in cool, dry conditions in well sealed receptacles.*

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Store receptacle in a well ventilated area.

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## 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:**

### 141-78-6 ethyl acetate

PEL 1400 mg/m<sup>3</sup>, 400 ppm  
REL 1400 mg/m<sup>3</sup>, 400 ppm  
TLV 1440 mg/m<sup>3</sup>, 400 ppm

### 64-17-5 ethanol

PEL 1900 mg/m<sup>3</sup>, 1000 ppm  
REL 1900 mg/m<sup>3</sup>, 1000 ppm  
TLV 1880 mg/m<sup>3</sup>, 1000 ppm

### 71-36-3 butan-1-ol

PEL 300 mg/m<sup>3</sup>, 100 ppm  
REL Short-term value: C 150 mg/m<sup>3</sup>, C 50 ppm  
Skin  
TLV 61 mg/m<sup>3</sup>, 20 ppm

### 50-00-0 formaldehyde

PEL Short-term value: 2 ppm  
Long-term value: 0.75 ppm  
see 29 CFR 1910.1048  
REL Short-term value: C 0.1\* ppm  
Long-term value: 0.016 ppm  
\*15-min  
TLV Short-term value: C 0.37 mg/m<sup>3</sup>, C 0.3 ppm  
SEN

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.  
Do not eat, drink, smoke or sniff while working.  
Immediately remove all soiled and contaminated clothing.  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.

· **Breathing equipment:**

Use suitable respiratory protective device in case of insufficient ventilation.  
Under the following conditions a respirator may be required:  
When product vapor concentration exceeds the limits listed in section 8.  
Short term filter device:  
Filter A

· **Protection of hands:** Solvent resistant gloves

· **Material of gloves**

Butyl rubber, BR

Recommended thickness of the material:  $\geq 0.5$  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.

· **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.

· **Not suitable are gloves made of the following materials:**

Natural rubber, NR

Nitrile rubber, NBR

PVC gloves

· **Eye protection:** Tightly sealed goggles

· **Body protection:** Protective work clothing

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## 9 Physical and chemical properties

### · General Information

<b>Form:</b>	Viscous
<b>Color:</b>	Brown
<b>Odor:</b>	Solvent-like

### · Change in condition

**Melting point/Melting range:** Undetermined.  
**Boiling point/Boiling range:** 76°C (169°F)

· **Flash point:** -1°C (30°F)

· **Ignition temperature:** 340°C (644°F)

· **Auto igniting:** Product is not selfigniting.

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

### · Explosion limits:

**Lower:** 2.1 Vol %  
**Upper:** 15.0 Vol %

· **Vapor pressure at 20°C (68°F):** 79 hPa (59 mm Hg) (prEN 13016-1)

· **Density at 20°C (68°F):** ca. 1.0 g/cm<sup>3</sup>

### · Solubility in / Miscibility with

**Water:** Partly soluble.

### · Viscosity:

**Dynamic at 20°C (68°F):** 2000 - 4000 mPas

## 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Dangerous reactions** Can form explosive mixtures in air if heated above flash point and/or when sprayed or atomized.
- **Dangerous products of decomposition:**
  - Carbon monoxide
  - Carbon dioxide
  - Nitrogen oxides (NO<sub>x</sub>)
  - Formaldehyde
- In case of fire: see section 5

## 11 Toxicological information

### · Acute toxicity:

#### · LD/LC50 values that are relevant for classification:

##### 50-00-0 formaldehyde

Oral	LD50	>200 mg/kg (rat)
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##### 64-17-5 ethanol

Oral	LD50	3450 mg/kg (mouse)
		7060 mg/kg (rat)
Dermal	LD50	4070 mg/kg (rabbit)
Inhalative	LC50/10h	37.68 mg/l (rat)
	LC50/4 h	20000 mg/l (rat)

### · Primary irritant effect:

- **on the skin:** Irritant effect is possible
- **on the eye:** Irritating effect.
- **Sensitization:** Sensitization possible through skin contact.

### · Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:  
 Irritant

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## 12 Ecological information

· **Ecotoxicological 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:**

Water hazard class 1 (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.

## 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.

· **Uncleaned packagings:**

· **Recommendation:**

Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning.

Packagings that cannot be cleansed are to be disposed of in the same manner as the product.

## 14 Transport information

· **DOT regulations:**



- **Hazard class:** 3
- **Identification number:** UN1866
- **Packing group:** III
- **Proper shipping name (technical name):** RESIN SOLUTION
- **Label:** 3

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



- **ADR/RID class:** 3 (F1) Flammable liquids
- **Danger code (Kemler):** 33
- **UN-Number:** 1866
- **Packaging group:** III
- **Description of goods:** 1866 RESIN SOLUTION

· **Maritime transport IMDG:**



- **IMDG Class:** 3
- **UN Number:** 1866
- **Label:** 3
- **Packaging group:** III
- **EMS Number:** F-E,S-E
- **Marine pollutant:** No

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· **Propper shipping name:** RESIN SOLUTION

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



· **ICAO/IATA Class:** 3  
 · **UN/ID Number:** 1866  
 · **Label:** 3  
 · **Packaging group:** III  
 · **Propper shipping name:** RESIN SOLUTION

## 15 Regulations

· **Sara**

· **Section 355 (extremely hazardous substances):**

50-00-0 formaldehyde

· **Section 313 (Specific toxic chemical listings):**

71-36-3 butan-1-ol

50-00-0 formaldehyde

80-05-7 bisphenol A

108-88-3 toluene

1330-20-7 xylene, mixed isomers, pure

78-93-3 butanone

· **TSCA (Toxic Substances Control Act):**

141-78-6 ethyl acetate

64-17-5 ethanol

71-36-3 butan-1-ol

68611-44-9 Hydrophobe pyrogene Kieselsäure

7732-18-5 water, distilled, conductivity or of similar purity

50-00-0 formaldehyde

80-05-7 bisphenol A

108-88-3 toluene

1330-20-7 xylene, mixed isomers, pure

78-93-3 butanone

· **Proposition 65**

· **Chemicals known to cause cancer:**

50-00-0 formaldehyde

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

64-17-5 ethanol

108-88-3 toluene

· **Canadian Ingredient disclosure list**

· **Limit 0,1%:**

ethanol

formaldehyde

· **Limit 1%:**

ethyl acetate

butan-1-ol

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· **Carcinogenicity categories**· **EPA (Environmental Protection Agency)**

71-36-3	butan-1-ol	D
108-88-3	toluene	D
1330-20-7	xylene, mixed isomers, pure	D
78-93-3	butanone	D

· **IARC (International Agency for Research on Cancer)**

50-00-0	formaldehyde	2A
108-88-3	toluene	3
1330-20-7	xylene, mixed isomers, pure	3
108-05-4	vinyl acetate	2B

· **NTP (National Toxicology Program)**

50-00-0	formaldehyde	R
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· **TLV (Threshold Limit Value established by ACGIH)**

64-17-5	ethanol	A4
108-88-3	toluene	A4
1330-20-7	xylene, mixed isomers, pure	A4
108-05-4	vinyl acetate	A3

· **MAK (German Maximum Workplace Concentration)**

64-17-5	ethanol	5
108-05-4	vinyl acetate	3

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

· **Product related hazard informations:**

The product has been classified and marked in accordance with directives on hazardous materials.

· **Hazard symbols:**

Xi Irritant  
F Highly flammable

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

formaldehyde

· **Risk phrases:**

Highly flammable.

Irritating to eyes.

May cause sensitization by skin contact.

Vapours may cause drowsiness and dizziness

· **Safety phrases:**

Keep out of the reach of children.

Keep away from sources of ignition - No smoking.

Avoid contact with skin and eyes.

Wear suitable gloves.

Use only in well-ventilated areas.

Dispose of this material and its container at hazardous or special waste collection point

· **National regulations:**· **Technical instructions (air):**

Class	Share in %
I	< 2,5
NK	25-50

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

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**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 MSDS:** 2SEW
- **Contact:** Mr. Anhorn
- **\* Data compared to the previous version altered.**