

Safety Data Sheet

acc. to ISO/DIS 11014


Printing date 05/17/2013

Reviewed on 05/17/2013

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

- **Product identifier**
- **Trade name:** AFD 2018
- **Elring article number:** 461.680
- **Relevant identified uses of the substance or mixture and uses advised against** No further relevant information available.
- **Application of the substance / the preparation** Sealing compound
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
ElringKlinger AG
Max-Eyth-Straße 2
D-72581 Dettingen/Erms
Germany
- **Information department:**
2SEW Tel.: ++49/(0)7123/724-253
E-mail: sdb@elringklinger.de
- **Emergency telephone number:** Tel.: ++49/(0)7123/724-0 (8.00 - 16.00 CET)

2 Hazards identification

- **Classification of the substance or mixture**
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**
-  **Irritant**
Irritating to eyes, respiratory system and skin. May cause sensitization by skin contact.
- **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 international substances 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 directives on hazardous materials.
- **Code letter and hazard designation of product:**



Xi Irritant

- **Hazard-determining components of labelling:**
methacrylic acid, monoester with propane-1,2-diol
2-hydroxyethyl methacrylate
- **Risk phrases:**
Irritating to eyes, respiratory system and skin.
May cause sensitization by skin contact.
- **Safety phrases:**
Avoid contact with skin.
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Wear suitable gloves.
This material and its container must be disposed of as hazardous waste.

- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



Health = 2
Fire = 1
Reactivity = 0

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



HEALTH 1 Health = 1
FIRE 1 Fire = 1
REACTIVITY 0 Reactivity = 0

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









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- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Anaerobic sealing compound based on acrylate.

· Dangerous components:

	Methacrylates  Xi R36/37/38	25-100%
27813-02-1	methacrylic acid, monoester with propane-1,2-diol  Xi R36-43	10-<25%
868-77-9	2-hydroxyethyl methacrylate  Xi R36/38-43	10-<20%
79-10-7	acrylic acid  C R35;  Xn R20/21/22;  N R50 R10	< 2.5%
80-15-9	α,α -dimethylbenzyl hydroperoxide  T R23;  C R34;  Xn R21/22-48/20/22;  O R7;  N R51/53	< 2.5%

4 First aid measures

- **Description of first aid measures**
- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.
- **After eye contact:** Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**
Rinse out mouth and then drink plenty of water.
Seek immediate medical advice.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed** No further relevant information available.

5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture**
During heating or in case of fire poisonous gases are produced.
In case of fire, the following can be released:
Carbon monoxide and carbon dioxide
In certain fire conditions, traces of other toxic gases cannot be excluded.
- **Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Do not inhale explosion gases or combustion gases.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Avoid contact with the eyes and skin.
Particular danger of slipping on leaked/spilled product.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

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- **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.
- **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.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Store in cool, dry place in tightly closed receptacles.
Do not refill residue into storage receptacles.
Use only in well ventilated areas.
Avoid contact with skin or eyes.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.
- **Information about storage in one common storage facility:** see chapter 10
- **Further information about storage conditions:**
Store in cool, dry conditions in well sealed receptacles.
Store receptacle in a well ventilated area.
Protect from heat and direct sunlight.
- **Storage class:** 10
- **Specific end use(s)** No further relevant information available.

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:	
79-10-7 acrylic acid	
REL	6 mg/m ³ , 2 ppm Skin
TLV	5.9 mg/m ³ , 2 ppm Skin
80-15-9 α,α -dimethylbenzyl hydroperoxide	
WEEL	6 mg/m ³ , 1 ppm Skin

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

- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Do not eat, drink, smoke or sniff while working.
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.
- **Breathing equipment:** Not necessary if room is well-ventilated.
- **Protection of hands:**
Protective gloves
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**
Fluorocarbon rubber (Viton)
Nitrile rubber, NBR
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.

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- **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:** Tightly sealed goggles
- **Body protection:** Protective work clothing

9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information

· Appearance:

Form:	Fluid
Color:	Red
Odor:	Characteristic

· **pH-value:** Not determined.

· Change in condition

Melting point/Melting range: Undetermined.
Boiling point/Boiling range: Undetermined.

· **Flash point:** > 100 °C (> 212 °F)

· **Danger of explosion:** Product does not present an explosion hazard.

· **Vapor pressure:** <3 hPa

· **Density at 20 °C (68 °F):** 1.1 g/cm³ (9.18 lbs/gal)

· Solubility in / Miscibility with

Water: Insoluble.

· Viscosity:

Dynamic at 20 °C (68 °F): ca. 500 mPas

· **Other information** No further relevant information available.

10 Stability and reactivity

· Reactivity

· Chemical stability

· **Thermal decomposition / conditions to be avoided:** Stable at ambient temperature.

· **Possibility of hazardous reactions** No dangerous reactions known.

· **Conditions to avoid** No further relevant information available.

· Incompatible materials:

oxidizing agents (strong)
reducing agents

· Hazardous decomposition products:

Carbon monoxide and carbon dioxide
Hydrocarbons

11 Toxicological information

· Information on toxicological effects

· Acute toxicity:

· LD/LC50 values that are relevant for classification:

79-10-7 acrylic acid

Oral	LD50	250 mg/kg (rat)
Dermal	LD50	280 mg/kg (rabbit)

80-15-9 α,α -dimethylbenzyl hydroperoxide

Oral	LD50	382 mg/kg (rat)
Dermal	LD50	500 mg/kg (rat)
Inhalative	LC50/4 h	220 mg/l (rat)

· Primary irritant effect:

· **on the skin:** Irritant to skin and mucous membranes.

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- **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

- **Carcinogenic categories**

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

79-10-7 acrylic acid

3

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
No environmental influences are known or expected, if used as authorized accordingly.
Water hazard class 1 (Self-assessment): slightly hazardous for water
- **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.
Take to special waste combustion plant.
- **Uncleaned packagings:**
- **Recommendation:**
Disposal must be made according to official regulations.
Packagings that cannot be cleansed are to be disposed of in the same manner as the product.

14 Transport information

- **UN-Number**
- **DOT, ADR, ADN, IMDG, IATA** Void
- **UN proper shipping name**
- **DOT, ADN, IMDG, IATA** Void
- **ADR** Void
- **Transport hazard class(es)**
- **DOT, ADR, ADN, IMDG, IATA**
- **Class** Void
- **Packing group**
- **DOT, ADR, IMDG, IATA** Void
- **Environmental hazards:**
- **Marine pollutant:** No
- **Special precautions for user** Not applicable.

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|--|--|
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| · Transport/Additional information: | Not dangerous according to the above specifications. |

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

· Section 355 (extremely hazardous substances):

None of the ingredient is listed.

· Section 313 (Specific toxic chemical listings):

79-10-7 acrylic acid

80-15-9 α,α -dimethylbenzyl hydroperoxide

· TSCA (Toxic Substances Control Act):

27813-02-1 methacrylic acid, monoester with propane-1,2-diol

868-77-9 2-hydroxyethyl methacrylate

79-10-7 acrylic acid

80-15-9 α,α -dimethylbenzyl hydroperoxide

· Proposition 65

· Chemicals known to cause cancer:

None of the ingredients is listed.

· 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:

None of the ingredients is listed.

· Canadian Ingredient disclosure list

· Limit 0,1%:

None of the ingredients is listed.

· Limit 1%:

2-hydroxyethyl methacrylate

acrylic acid

 α,α -dimethylbenzyl hydroperoxide

· Cancerogenity categories

· EPA (Environmental Protection Agency)

None of the ingredients is listed.

· TLV (Threshold Limit Value established by ACGIH)

79-10-7 acrylic acid

A4

· MAK (German Maximum Workplace Concentration)

None of the ingredients is listed.

· 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.

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· **Hazard symbols:**



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

methacrylic acid, monoester with propane-1,2-diol
2-hydroxyethyl methacrylate

· **Risk phrases:**

Irritating to eyes, respiratory system and skin.
May cause sensitization by skin contact.

· **Safety phrases:**

Avoid contact with skin.
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Wear suitable gloves.
This material and its container must be disposed of as hazardous waste.

· **National regulations:**

· **Information about limitation of use:** Employment restrictions concerning young persons must be observed.

· **Technical instructions (air):**

Class	Share in %
I	< 2,5
NK	< 2,5

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

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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.**