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

1.1. Product identifier

Name of product

RIEGLER Repair stick aluminium / 57 g
Code-Nr. R115.21 / ID-Nr. 114583

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended intended purpose(s)
2-Component Epoxy Resins

1.3. Details of the supplier of the safety data sheet

Manufacturer/distributor

RIEGLER & Co. KG
Schützenstr. 27, D-72574 Bad Urach
Phone : +49 (0) 7125/9497-0, Fax : +49 (0) 7125/9497-97
E-Mail : zedok@riegler.de
Internet : www.riegler.de

Advice

Abteilung eDocumentation
Phone : +49 (0) 7125/9497-0
Fax : +49 (0) 7125/9497-97
E-mail (competent person):
zedok@riegler.de

1.4. Emergency telephone number

Emergency advice

Giftnotrufzentrale Bonn
Phone : +49(0)228-19 240

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]

Hazard classes and Hazard categories	Hazard Statements	Classification procedure
Skin Irrit. 2	**H315**	
Eye Irrit. 2	**H319**	
Skin Sens. 1	**H317**	
Aquatic Chronic 3	**H412**	

Hazard Statements

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H412	Harmful to aquatic life with long lasting effects.

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008 [CLP/GHS]

GHS07

Signal word
Warning

Hazard Statements

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H412	Harmful to aquatic life with long lasting effects.

Precautionary Statements

P102	Keep out of reach of children.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P264	Wash hands thoroughly after handling.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332 + P313	If skin irritation occurs: Get medical advice/attention.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P362	Take off contaminated clothing.
P363	Wash contaminated clothing before reuse.
P501	Dispose of contents/container to hazardous or special waste collection point.

! Hazardous ingredients for labeling
3-[3-(3-hydroxypropoxy)-2,2-bis[(3-hydroxypropoxy)methyl]propoxy]propan-1-ol; 3-sulfanylpropane-1,2-diol, reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <= 700)

Special rules for supplemental label elements for certain mixtures
Contains epoxy constituents. May produce an allergic reaction.

2.3. Other hazards
Results of PBT and vPvB assessment
The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

! SECTION 3: Composition/ information on ingredients

3.1. Substances
not applicable

3.2. Mixtures
Description
2-component epoxy sticks

! Hazardous ingredients

CAS No	EC No	Name	[% weight]	Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]
7429-90-5	231-072-3	aluminium powder (stabilised)	1 - 5	Water-react. 2, H261 / Flam. Sol. 1, H228
25068-38-6	500-033-5	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <= 700)	10 - 20	Eye Irrit. 2, H319 / Skin Irrit. 2, H315 / Skin Sens. 1, H317 / Aquatic Chronic 2, H411
65997-17-3	266-046-0	glass, oxide, chemicals	1 - 5	
90-72-2	202-013-9	2,4,6-Tris (dimethylaminomethyl) phenol	1 < 5	Acute Tox. 4, H302 / Skin Corr. 1B, H314 / Eye Dam. 1, H318 / Skin Sens. 1B, H317 / Aquatic Chronic 3, H412

Hazardous ingredients (continued)

CAS No	EC No	Name	[% weight]	Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]
72244-98-5	**615-735-8**	**3-[3-(3-hydroxypropoxy)-2,2-bis[(3-hydroxypropoxy)methyl]propoxy]propan-1-ol; 3-sulfanylpropane-1,2-diol**	**10 - 20**	**Skin Sens. 1B, H317 / Aquatic Chronic 3, H412**

REACH

CAS No	Name	REACH registration number
7429-90-5	aluminium powder (stabilised)	01-2119529243-45
25068-38-6	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <= 700)	01-2119456619-26
90-72-2	2,4,6-Tris (dimethylaminomethyl) phenol	01-2119560597-27
72244-98-5	3-[3-(3-hydroxypropoxy)-2,2-bis[(3-hydroxypropoxy)methyl]propoxy]propan-1-ol; 3-sulfanylpropane-1,2-diol	01-2120118957-46

SECTION 4: First aid measures

4.1. Description of first aid measures

General information
Remove contaminated soaked clothing immediately.

In case of inhalation
Ensure of fresh air.
In the event of symptoms refer for medical treatment.

In case of skin contact
In case of contact with skin wash off with water.
Consult a doctor if skin irritation persists.

In case of eye contact
After eye contact, rinse opened eye for 15 minutes under running water. Transfer to hospital for specialist examination.

In case of ingestion
Do not induce vomiting.
Call for a doctor immediately.

4.2. Most important symptoms and effects, both acute and delayed

Physician's information / possible symptoms
vomiting
Allergic symptoms

Physician's information / possible dangers
allergic reactions

4.3. Indication of any immediate medical attention and special treatment needed

No information available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media
Alcohol-resistant foam
Dry fire-extinguishing substance
Carbon dioxide
Water spray jet

Unsuitable extinguishing media
Full water jet

5.2. Special hazards arising from the substance or mixture
In case of fire formation of dangerous gases possible.
Nitrogen oxides (NOx)
Carbon monoxide (CO)
Carbon dioxide (CO2)

5.3. Advice for firefighters
Special protective equipment for fire-fighters
Fire-fighting operations, rescue and clearing work under effect of combustion and smoulder gases just may be done with breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
For non-emergency personnel
Ensure adequate ventilation.
Remove persons to safety.
Use personal protective clothing.

6.2. Environmental precautions
Inform pollution control authorities if product gets into the sewerage systems or open waters.
Do not discharge into the drains/surface waters/groundwater.

6.3. Methods and material for containment and cleaning up
Send in suitable containers for recovery or disposal.
Take up with absorbent material.

6.4. Reference to other sections
Safe handling: see section 7
Disposal: see section 13
Personal protection equipment: see section 8

! SECTION 7: Handling and storage

7.1. Precautions for safe handling
Advice on safe handling
Care for thoroughly room ventilation, if necessary use in well ventilated area with local exhaust ventilation at workplace.

General protective measures
Avoid contact with eyes and skin

Hygiene measures
At work do not eat, drink, smoke or take drugs.
Wash hands before breaks and after work.

Advice on protection against fire and explosion
Pay attention to general rules of internal fire prevention.

7.2. Conditions for safe storage, including any incompatibilities
Requirements for storage rooms and vessels
Keep in closed original container.

Advice on storage compatibility
Do not store together with acids.
Do not store together with oxidizing agents.

Further information on storage conditions
Protect from direct solar radiation.
Store container at cool and aired place.

Store in a dry place.
Protect from heat/overheating.

7.3. Specific end use(s)
Recommendation(s) for intended use
See section 1.2

! SECTION 8: Exposure controls/personal protection

8.1. Control parameters
! Ingredients with occupational exposure limits to be monitored

CAS No	Name	Code	[mg/m3]	[ppm]	Remark
14807-96-6	Talc respirable dust	8 hours	1		EH40/2005

DNEL-/PNEC-values
DNEL worker

CAS No	Substance name	Value	Code	Remark
25068-38-6	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <= 700)	8,33 mg/kg bw/day	DNEL long-term dermal (local)	
		12,25 mg/m3	DNEL long-term inhalative (systemic)	
		8,33 mg/kg bw/day	DNEL long-term dermal (systemic)	
7429-90-5	aluminium powder (stabilised)	3,72 mg/m3	DNEL long-term inhalative (local)	
90-72-2	2,4,6-Tris (dimethylaminomethyl) phenol	0,31 mg/m3	DNEL long-term inhalative (systemic)	

PNEC

CAS No	Substance name	Value	Code	Remark
25068-38-6	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight <= 700)	0,0006 mg/l	PNEC aquatic, marine water	
		0,006 mg/l	PNEC aquatic, freshwater	
		10 mg/l	PNEC sewage treatment plant (STP)	
		0,996 mg/kg	PNEC sediment, freshwater	
		0,0996 mg/kg	PNEC sediment, marine water	
		11 mg/kg	PNEC Secondary Poisoning	
		0,018 mg/l	PNEC aquatic, intermittent release	
90-72-2	2,4,6-Tris (dimethylaminomethyl) phenol	0,084 mg/l	PNEC aquatic, freshwater	
		0,0084 mg/l	PNEC aquatic, marine water	
		0,2 mg/l	PNEC sewage treatment plant (STP)	

! Additional advice
The statutory local and national regulations have to be observed.

8.2. Exposure controls
Respiratory protection
In case of insufficient ventilation or long-term effect use breathing apparatus.

Hand protection
In the cases of special applications, it is recommended to check the chemical resistance with the manufacturer of the gloves.
Glove material specification [make/type, thickness, permeation time/life, wetting resistance]:: Nitrile rubber; 0,4mm; 480min;60min.
Chemical protective gloves must be chosen carefully in view of their design and depending on the dependence on the concentration and amounts of dangerous goods used in the specific working tasks.

Eye protection
tightly fitting goggles

Other protection measures
protective clothing

Appropriate engineering controls
Sufficient ventilation and exhaustion.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Colour	Odour
pasty	grey	hardly noticeable

Odour threshold
not determined

Important health, safety and environmental information

	Value	Temperature	at	Method	Remark
pH value	not applicable				
boiling point	> 35 °C		ca. 101 kPa		
melting point	not applicable				
Flash point	> 100 °C				
Vapourisation rate	not applicable				
Flammable (solid)	not determined				
Flammability (gas)	not determined				
Ignition temperature	not determined				
Self ignition temperature	not determined				
Lower explosion limit	not determined				
Upper explosion limit	not determined				
Vapour pressure	< 500 Pa	20 °C			
Relative density	1,9 - 2 g/cm3	20 °C			
Vapour density	not applicable				
Solubility in water					insoluble

	Value	Temperature	at	Method	Remark
Solubility/other	not determined				
Partition coefficient n-octanol/water (log P O/W)	not determined				
Decomposition temperature	not determined				
Viscosity dynamic	not applicable				
Viscosity kinematic	not applicable				

Oxidising properties
No information available.

Explosive properties
not applicable

9.2. Other information
No information available.

! SECTION 10: Stability and reactivity

10.1. Reactivity
No information available.

10.2. Chemical stability
The product is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions
Reactions with acids and strong oxidising agents.

10.4. Conditions to avoid
No information available.

10.5. Incompatible materials
Substances to avoid
Amines
Acid
Oxidising agent, strong

10.6. Hazardous decomposition products
Carbon monoxide and carbon dioxide.
Nitrous oxides (NOx)
Toxic gases/vapours

Thermal decomposition

Remark No decomposition if used as directed.

! SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity/Irritation/Sensitization

	Value/Validation	Species	Method	Remark
LD50 acute oral	20000 mg/kg			ATE
LD50 acute dermal	1200 mg/kg	rat		CAS: 25068-38-6
Skin irritation	irritant			
Eye irritation	irritant			
Skin sensitization	sensitizing			

Subacute Toxicity - Carcinogenicity

	Value	Species	Method	Validation
Mutagenicity				No experimental information on genotoxicity in vitro available.
Reproduction-Toxicity				No indications of toxic effects were observed in reproduction studies in animals.
Carcinogenicity				No indications of carcinogenic effects are available from long-term trials.

Experiences made from practice
Sensitization through skin contact possible.
Irritates eyes and skin.

Additional information
The product is to be handled with the caution usual with chemicals.
Other hazardous properties may not be excluded.

! SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicological effects

	Value	Species	Method	Validation
Fish	LC50 2 mg/l (96 h)	Oncorhynchus mykiss		CAS: 25068-38-6
Daphnia	EC50 1,8 mg/l (48 h)	Daphnia magna		CAS: 25068-38-6
Algae	EC50 220 mg/l (96 h)	Scenedesmus subspicatus		CAS: 25068-38-6

12.2. Persistence and degradability

	Elimination rate	Method of analysis	Method	Validation
Biological degradability	12 % (28 d) CAS: 25068-38-6			not degradable

12.3. Bioaccumulative potential
No information available.

12.4. Mobility in soil
No information available.

12.5. Results of PBT and vPvB assessment
The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Other adverse effects
! **General regulation**
Harmful to aquatic life with long lasting effects.
Do not allow uncontrolled leakage of product into the environment.
Product is not allowed to be discharged into aquatic environment, drains or sewage treatment plants.

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Recommendations for the product
Remove in accordance with local official regulations.

Recommendations for packaging
Uncontaminated packaging may be treated as household waste.
Packaging that cannot be cleaned should be disposed of like the product.

General information
Assignment to a waste code number / waste identification according to the EWC is to be carried out on a sector or process-specific basis.

SECTION 14: Transport information

	ADR/RID	IMDG	IATA-DGR
14.1. UN number	-	-	-
14.2. UN proper shipping name	-	-	-
14.3. Transport hazard class(es)	-	-	-
14.4. Packing group	-	-	-
14.5. Environmental hazards	-	-	-

14.6. Special precautions for user
No information available.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
not applicable

Transport/further information
No dangerous goods as defined by the transport regulations - ADR/RID, IMDG, ICAO/IATA-DGR.

! SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

VOC standard
VOC content 0 %

15.2. Chemical Safety Assessment
Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Recommended uses and restrictions
National and local regulations concerning chemicals shall be observed.

Further information
Each user is responsible for the implementation of the national special regulations.
The information contained herein is based on the state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.
Please observe the following disclaimer! --- Our safety data sheets have been compiled according to effective EU-directives, WITHOUT taking into account the special national directives concerning the handling of hazardous substances.

Indication of changes: "!" = Data changed compared with the previous version. Previous version: 9.1

H228 Flammable solid.
H261 In contact with water releases flammable gases.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H411 Toxic to aquatic life with long lasting effects.
H412 Harmful to aquatic life with long lasting effects.