


RAKU-TOOL EL-2210 Resin

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SECTION 1: Identification of the substance/mixture and of the company/undertaking
1.1. Product identifier

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

Epoxy-component for epoxy-casting resin

Uses advised against

no data available

1.3. Details of the supplier of the safety data sheet

Company name:	RAMPF Tooling Solutions GmbH & Co. KG	
Street:	Robert-Bosch-Str. 8-10	
Place:	D-72661 Grafenberg	
Telephone:	+49(0)7123-9342-1600	Telefax: +49(0)7123/93421666
e-mail:	tooling.solutions@rampf-gruppe.de	

1.4. Emergency telephone
number:

Emergency telephone : ++49 (0) 6132 / 84463 GBK GmbH Global Regulatory Compliance, Ingelheim

Further Information

no data available

SECTION 2: Hazards identification
2.1. Classification of the substance or mixture
Regulation (EC) No. 1272/2008
Hazard categories:

Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Irrit. 2

Respiratory or skin sensitisation: Skin Sens. 1

Hazardous to the aquatic environment: Aquatic Chronic 2

Hazard Statements:

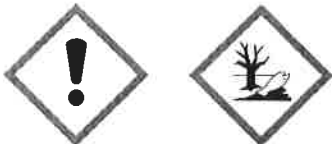
Causes skin irritation.

Causes serious eye irritation.

May cause an allergic skin reaction.

Toxic to aquatic life with long lasting effects.

2.2. Label elements
Regulation (EC) No. 1272/2008
Hazard components for labelling
epoxy resin (number average molecular weight \leq 700), reaction product: bisphenol-A-(epichlorhydrin)
Signal word: Warning

Pictograms:

Hazard statements

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statements

P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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Special labelling of certain mixtures

EUH205

Contains epoxy constituents. May produce an allergic reaction.

2.3. Other hazards

Not fulfilling PBT.

SECTION 3: Composition/information on ingredients**3.2. Mixtures****Chemical characterization**

Mixture of the following substances with non-hazardous admixtures

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
25068-38-6	epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin)			80 - 90 %
	500-033-5	603-074-00-8	01-2119456619-26	
	Skin Irrit. 2, Eye Irrit. 2, Skin Sens. 1, Aquatic Chronic 2; H315 H319 H317 H411			

Full text of H and EUH statements: see section 16.

Further Information

none

SECTION 4: First aid measures**4.1. Description of first aid measures****General information**

Remove contaminated soaked clothing immediately.

In the event of persistent symptoms receive medical treatment.

After inhalation

Move to fresh air in case of accidental inhalation of vapours or decomposition products.

In the event of symptoms refer for medical treatment.

After contact with skin

Wash off immediately with soap and plenty of water.

Consult a doctor if skin irritation persists.

After contact with eyes

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Seek medical treatment by eye specialist.

After ingestion

Immediately give plenty of water (if possible charcoal slurry). Do not induce vomiting.

Never give anything by mouth to an unconscious person.

Summon a doctor immediately.

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

no data available

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

no data available

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**Foam, carbon dioxide (CO₂), dry chemical, water-spray.**Unsuitable extinguishing media**

Full water jet

5.2. Special hazards arising from the substance or mixture

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Carbon monoxide and carbon dioxide.

5.3. Advice for firefighters

Protective suit

Use breathing apparatus with independent air supply.

Additional information

Do not let enter contaminated extinguishing water into the soil, groundwater or surface waters.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

In case of vapour formation use respirator.

Ensure adequate ventilation.

Use personal protective clothing.

Keep away from sources of ignition - No smoking.

6.2. Environmental precautions

Clean contaminated surface thoroughly.

Do not discharge into the drains/surface waters/groundwater.

6.3. Methods and material for containment and cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder).

Take up mechanically and collect in suitable container for disposal.

6.4. Reference to other sections

none

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

Keep container tightly closed.

Use only in thoroughly ventilated areas.

Avoid contact with skin, eyes and clothing.

Advice on protection against fire and explosion

No special protective measures against fire required.

Further information on handling

no data available

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Keep container tightly closed in a dry, cool and well-ventilated place.

Protect against direct sun radiation.

Advice on storage compatibility

Incompatible with: Bases, Amines, Alcohols

Further information on storage conditions

Keep away from food, drink and animal feeding stuffs.

Keep at temperatures between 5°C and 40°C.

7.3. Specific end use(s)

no data available

SECTION 8: Exposure controls/personal protection**8.1. Control parameters**


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DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
25068-38-6	epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin)			
Worker DNEL, acute		dermal	systemic	8,3 mg/kg bw/day
Worker DNEL, acute		inhalation	systemic	12,3 mg/m³
Worker DNEL, long-term		dermal	systemic	8,3 mg/kg bw/day
Worker DNEL, long-term		inhalation	systemic	12,3 mg/m³

PNEC values

CAS No	Substance	Value
25068-38-6	epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin)	
Freshwater		0,006 mg/l
Marine water		0,0006 mg/l
Freshwater sediment		0,996 mg/l
Marine sediment		0,0996 mg/l
Soil		0,196 mg/l

Additional advice on limit values

Further Information no data available

8.2. Exposure controls
Appropriate engineering controls

Ensure adequate ventilation, especially in confined areas.

Protective and hygiene measures

Do not inhale vapours.

Wash hands before breaks and immediately after handling the product.

When using, do not eat, drink or smoke.

Avoid contact with skin, eyes and clothing.

Remove and wash contaminated clothes before re-use.

Eye/face protection

Tightly fitting goggles

Hand protection

Protective gloves resistant to chemicals made off nitrile, Minimum coat thickness 0.4 mm, Permeation resistance (wear duration) approx. 480 minutes, i.e. protective glove <Camatril Velours 730> made by www.kcl.de. ,

butyl rubber (Butyl) - = 0.7 mm thickness; i.e. <Butoject 898> made by KCL.

This recommendation refers exclusively to the chemical compatibility and the lab test conforming to EN 374 carried out under lab conditions.

Requirements can vary as a function of the use. Therefore it is necessary to adhere additionally to the recommendations given by the manufacturer of protective gloves.

Skin protection

Light protective clothing, Safety Shoes

Respiratory protection

Use suitable breathing apparatus if there is inadequate ventilation.

If product is sprayed, use fresh-air breathing apparatus or (only short-term use) a combination filter A2-P2.

Environmental exposure controls

no data available

SECTION 9: Physical and chemical properties
9.1. Information on basic physical and chemical properties

Physical state:

liquid

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Odour: slight

pH-Value: n.d.

Changes in the physical state

Melting point: n.d.

Initial boiling point and boiling range: > 200 °C

Flash point: > 100 °C

Flammability

Solid: n.a.

Gas: n.a.

Explosive properties

Product does not present an explosion hazard.

Lower explosion limits: n.d.

Upper explosion limits: n.d.

Ignition temperature: n.d.

Decomposition temperature: > 200 °C

Oxidizing properties

n.a.

Vapour pressure: n.d.

Density (at 20 °C): 1,17 g/cm³

Water solubility: n.d.

Partition coefficient: n.d.

Viscosity / dynamic:
(at 20 °C) 30.000 - 50.000 mPa·s

Vapour density: n.d.

Evaporation rate: n.d.

9.2. Other information

No data available.

SECTION 10: Stability and reactivity**10.1. Reactivity**

Exothermic reaction with: Bases, Amines, Alcohols

10.2. Chemical stability

Stable at normal conditions

10.3. Possibility of hazardous reactions

Stable at normal conditions

10.4. Conditions to avoid

To avoid thermal decomposition, do not overheat.

10.5. Incompatible materials

Exothermic reaction with: Bases, Amines, Alcohols

10.6. Hazardous decomposition products

no data available

Further information

No decomposition if stored and applied as directed.

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Toxicocinetics, metabolism and distribution**

no data available

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Acute toxicity

no data available

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
25068-38-6	epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin)				
	oral	LD50 >15000 mg/kg	Rat		
	dermal	LD50 23000 mg/kg	Rabbit		

Irritation and corrosivity

Irritating to skin..

Causes serious eye irritation.

Sensitising effects

Sensitization through skin contact possible.

Carcinogenic/mutagenic/toxic effects for reproduction

no data available

STOT-single exposure

no data available

STOT-repeated exposure

no data available

Aspiration hazard

no data available

Specific effects in experiment on an animal

no data available

Additional information on tests

no data available

Practical experience**Observations relevant to classification**

no data available

Other observations

no data available

SECTION 12: Ecological information**12.1. Toxicity**

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

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
25068-38-6	epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin)					
	Acute fish toxicity	LC50 2 mg/l	96 h	Rainbow trout		
	Acute algae toxicity	ErC50 11 mg/l	72 h	algae		
	Acute crustacea toxicity	EC50 1,8 mg/l	48 h	Daphnia		

12.2. Persistence and degradability

no data available

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
25068-38-6	epoxy resin (number average molecular weight <= 700), reaction product: bisphenol-A-(epichlorhydrin)			
	Biodegradable (OECD):	6 - 12 %	28	
	Not readily biodegradable (42%)			

12.3. Bioaccumulative potential

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Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
25068-38-6	epoxy resin (number average molecular weight ≤ 700), reaction product: bisphenol-A-(epichlorhydrin)	2,64 - 3,78

12.4. Mobility in soil

no data available

12.5. Results of PBT and vPvB assessment

no data available

12.6. Other adverse effects

no data available

Further information

Do not flush into surface water or sanitary sewer system.
 Hazard to waters

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Advice on disposal**

Where possible recycling is preferred to disposal.
 Can be incinerated, when in compliance with local regulations.
 It is not possible to give this product a waste code number according to the European waste catalogue because only the intended use of the user consents the assignment of a specific code number.
 The waste code number must be agreed with the disposer / manufacturer / competent authority.

Contaminated packaging

Contaminated packagings are to be treated like the product itself.
 Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.
 Packaging that cannot be cleaned should be disposed of like the product.

SECTION 14: Transport information**Land transport (ADR/RID)****14.1. UN number:**

UN 3082

14.2. UN proper shipping name:

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
 (Epoxide derivatives)

14.3. Transport hazard class(es):

9

14.4. Packing group:

III

Hazard label:

9

**Classification code:**

M6

Special Provisions:

274 335 375 601

Limited quantity:

5 L

Excepted quantity:

E1

Transport category:

3

Hazard No:

90

Marine transport (IMDG)**14.1. UN number:**

UN 3082

14.2. UN proper shipping name:

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
 (Epoxide derivatives)

14.3. Transport hazard class(es):

9

14.4. Packing group:

III

Hazard label:

9



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Marine pollutant: yes
 Special Provisions: 274, 335, 969
 Limited quantity: 5 L
 Excepted quantity: E1
 EmS: F-A, S-F

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 3082
14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
 (Epoxide derivatives)
14.3. Transport hazard class(es): 9
14.4. Packing group: III
 Hazard label: 9



Special Provisions: A97 A158 A197
 Limited quantity Passenger: 30 kg G
 Passenger LQ: Y964
 Excepted quantity: E1
 IATA-packing instructions - Passenger: 964
 IATA-max. quantity - Passenger: 450 L
 IATA-packing instructions - Cargo: 964
 IATA-max. quantity - Cargo: 450 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: yes

**14.6. Special precautions for user**

no data available

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

no data available

Other applicable information

no data available

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

Information according to 2012/18/EU (SEVESO III): E2 Hazardous to the Aquatic Environment

Additional information

This product does not contain substances of very high concern > 0,1% (Regulation (EC) No 1907/2006 (REACH), Article 57).

National regulatory information

Water contaminating class (D): 2 - clearly water contaminating

Additional information

Substances of very high concern SVHC (Reach Art.59): none > 0,1%
 Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances,

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15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:
 epoxy resin (number average molecular weight ≤ 700), reaction product: bisphenol-A-(epichlorhydrin)

SECTION 16: Other information**Changes**

This data sheet contains changes from the previous version in section(s) 14

Abbreviations and acronyms

"(n.a. = not applicable; n.d. = not determined)"

Classification for mixtures and used evaluation method according to Regulation (EC) No. 1272/2008 [CLP]

Classification	Classification procedure
Skin Irrit. 2; H315	Calculation method
Eye Irrit. 2; H319	Calculation method
Skin Sens. 1; H317	Calculation method
Aquatic Chronic 2; H411	Calculation method

Relevant H and EUH statements (number and full text)

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H411	Toxic to aquatic life with long lasting effects.
EUH205	Contains epoxy constituents. May produce an allergic reaction.

Further Information

The classification is based on the calculation method according to Regulation (EU) No. 1272/2008

Key literature references and sources for data

Regulation (EC) No. 1272/2008

Regulation (EC) No 1907/2006

www.echa.europa.eu

Data of items 4 to 8, as well as 11 and 12, do partly not refer to the use and the regular employing of the product (in this sense consult information on use and on product), but to liberation of major amounts in case of accidents and irregularities.

The information describes exclusively the safety requirements for the product (s) and is based on the present level of our knowledge.

The delivery specifications are contained in the corresponding product sheet.

This data does not constitute a guarantee for the characteristics of the product(s) as defined by the legal warranty regulations.

"(n.a. = not applicable; n.d. = not determined)"

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)