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Reviewed on:	<b>EPOXY METAL PASTE - ACTIVATOR</b>	Version: 1.0

**1. Section 1. Identification of the substance/mixture and of the company/undertaking:**

- 1.1. Product identifier:  
Trade name: **EPOXY METAL PASTE - ACTIVATOR**  
Product code: **R 34575/76**
- 1.2. Relevant identified uses of the substance or mixture and uses advised against:  
Uses of the mixture: Liquid metal – designed for repairs of metal products.  
For professional and industrial use only.  
Uses advised against: Not known.
- 1.3. Details of the supplier of the safety data sheet:  
Identification of manufacturer/Supplier:  
RETECH, s.r.o.  
Vackova 1541/4  
150 00 Praha 5 - Stodůlky  
Telephone number/Fax: +420 327 596 128, +420 327 596 428  
E-mail: info@retech.cz
- 1.4. Emergency telephone number: RETECH, Suchdol 212, 285 02 Suchdol u Kutné Hory, Czech Republic  
Telephone number: +420 327 596 128 (7.30-16.00 hour)  
Toxikologické informační středisko (Toxicology information centre),  
Na bojišti 1, 128 08 PRAHA 2, Czech Republic  
Telephone number: +420 224 919 293, +420 224 915 402 (24 hours a day)

**2. Section 2. Hazard identification:**

- 2.1. Classification of the substance or mixture:  
Classification according to Regulation (EC) No 1272/2008 [CLP]:  
Skin Corr. 1B H314 Causes severe skin burns and eye damage.  
Skin Sens. 1 H317 May cause an allergic skin reaction.  
Repr. 2 H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.  
Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

- 2.2. Label elements:  
Labelling according to Regulation (EC) No 1272/2008 [CLP]:



Signal Word: Danger

Hazard Statements:

H314 Causes severe skin burns and eye damage.  
H317 May cause an allergic skin reaction.  
H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.  
H411 Toxic to aquatic life with long lasting effects.

Precautionary Statements:

P102 Keep out of reach of children.  
P202 Do not handle until all safety precautions have been read and understood.  
P264 Wash skin thoroughly after handling.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P302+P352 IF ON SKIN: Wash with plenty of 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.  
P308+P313 IF exposed or concerned: Get medical advice/attention.  
P501 Dispose of contents/container in accordance with national regulation.

## Safety Data Sheet

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Contained dangerous substances:

25154-52-3 nonylphenol; 140-31-8 2-piperazin-1-ylethylamine; 2855-13-2 3-aminomethyl-3,5,5-trimethylcyclohexylamine

2.3. Other hazards:

Results of PBT and vPvB assessment:

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**3. Section 3. Composition/information on ingredients:**

3.2. Mixtures:

Description of the mixture: Mixture of active ingredients

Hazardous ingredients:

CAS: 25154-52-3 EINECS: 246-672-0	Nonylphenol Acute Tox. 4, H302; Skin Corr. 1B, H314; Repr. 2, H361fd; Aquatic Acute 1, H400; Aquatic Chronic 1, H410	3 - 10 %
CAS: 140-31-8 EINECS: 205-411-0	2-Piperazin-1-ylethylamine Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Corr. 1B, H314; Skin Sens. 1, H317; Aquatic Chronic 3, H412	3 - 10 %
CAS: 2855-13-2 EINECS: 220-666-8	3-Aminomethyl-3,5,5-trimethylcyclohexylamine Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Corr. 1B, H314; Skin Sens. 1, H317; Aquatic Chronic 3, H412	3 - 10 %
CAS: 100-51-6 EINECS: 202-859-9	Benzyl alcohol Acute Tox. 4, H302; Acute Tox. 4, H332	3 - 10 %
CAS: 90-72-2 EINECS: 202-013-9	2,4,6-tris(dimethylaminomethyl)phenol Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319	1 - 3 %
CAS: 64742-47-8 EINECS: 265-149-8	Distillates (petroleum), hydrotreated light; Kerosine - unspecified Asp. Tox. 1, H304	< 1 %

For full text of H-statements: see SECTION 16.

**4. Section 4. First aid measures:**

4.1. Description of first aid measures:

General notes: When in doubt or if symptoms are observed, get medical advice.  
 After inhalation: Remove casualty from exposure ensuring one's own safety whilst doing so. Consult a doctor.  
 After skin contact: Remove all contaminated clothes and footwear immediately unless stuck to skin. Wash immediately with plenty of soap and water.  
 After eye contact: Transfer to hospital if there are burns or symptoms of poisoning. Rinse opened eye for several minutes under running water. Remove contact lenses, if present and easy to do. Continue rinsing. Consult a doctor.  
 After swallowing: Do not induce vomiting. Wash out mouth with water. Consult a doctor.

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

See section 11.

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

Show this safety data sheet to the doctor in attendance.

**5. Section 5. Fire fighting measures:**

5.1. Extinguishing media:

Suitable extinguishing agents: Suitable extinguishing media for the surrounding fire should be used. Carbon dioxide, alcohol resistant foam, dry chemical powder.

Unsuitable extinguishing agents:

No further relevant information available.

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<p>5.2. Special hazards arising from the substance or mixture:</p> <p style="padding-left: 40px;">Corrosive. Harmful. In combustion emits toxic fumes of carbon dioxide/carbon monoxide, nitrogen oxides.</p> <p>5.3. Advice for firefighters:      Wear protective clothing and self-contained breathing apparatus.</p>	
<p><b>6. Section 6. Accidental release measures:</b></p> <p>6.1. Personal precautions, protective equipment and emergency procedures:</p> <p style="padding-left: 40px;">Wear protective equipment, see Section 8. Ensure adequate ventilation.</p> <p>6.2. Environmental precautions:    Do not discharge into drains or rivers.</p> <p>6.3. Methods and material for containment and cleaning up:</p> <p style="padding-left: 40px;">Ensure good ventilation. Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method. Dispose contaminated material as waste according to Section 13.</p> <p>6.4. 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.</p>	
<p><b>7. Section 7. Handling and storage:</b></p> <p>7.1. Precautions for safe handling:</p> <p style="padding-left: 40px;">Protective measures:            Wear protective equipment, see Section 8. Ensure good ventilation/exhaustion at the workplace.</p> <p style="padding-left: 40px;">Measures to prevent fire:       No further relevant information available.</p> <p>7.2. Conditions for safe storage, including any incompatibilities:</p> <p style="padding-left: 40px;">Requirements for storage rooms and vessels: Store in a cool, well ventilated area. Must only be kept in original packaging.</p> <p style="padding-left: 40px;">Technical measures and storage conditions: Store in a cool, well ventilated area.</p> <p style="padding-left: 40px;">Further information on storage conditions: No further relevant information available.</p> <p>7.3. Specific end use(s):            Building and construction work (SU19).</p>	
<p><b>8. Section 8. Exposure controls/personal protection:</b></p> <p>8.1. Control parameters:</p> <p style="padding-left: 40px;">Components with limit values that require monitoring at the workplace: WEL (United Kingdom): EH40/2005 Contains no substances with occupational exposure limit values.</p> <p style="padding-left: 40px;">OEL (EU): 2000/39/EG, 2006/15/EG, 2009/161/EG Contains no substances with occupational exposure limit values.</p> <p style="padding-left: 40px;">Additional information: The lists that were valid during the compilation were as basis.</p> <p>8.2. Exposure controls:</p> <p style="padding-left: 40px;">Technical measures to prevent exposure: Ensure good ventilation/exhaustion at the workplace. Ensure eye bath is to hand.</p> <p style="padding-left: 40px;">General protective measures:    Wash hands before breaks and at the end of work.</p> <p style="padding-left: 40px;">Personal protection equipment:</p> <p style="padding-left: 80px;">Respiratory protection:        Respiratory protection usually not required with adequate ventilation. Self-contained breathing apparatus must be available in case of emergency.</p> <p style="padding-left: 80px;">Eye protection:                 Safety glasses.</p> <p style="padding-left: 80px;">Hand protection:                Protective gloves. Wear solvent proof gloves. Recommended material of gloves: Nitrile, rubber.</p>	

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Recommended thickness of material: > 0.5 mm  
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.

Skin protection: Impermeable protective clothing.

**9. Section 9. Physical and chemical properties:**

9.1. Information on basic physical and chemical properties:

Form: Paste.  
Colour: Light grey.  
Odour: Characteristic.  
Odour threshold: Not determined.  
Value pH at 20 °C: Not determined.  
Melting point/freezing point: Not determined.  
Initial boiling point/boiling range: > 200 °C  
Flash point: > 100 °C  
Evaporation rate: Negligible.  
Flammability (solid, gas): Not determined.  
Explosive properties: Not determined.  
Explosive limits:  
– lower: Not determined.  
– upper: Not determined.  
Vapour pressure at 20°C: Not determined.  
Vapour density at 20 °C: Not determined.  
Density at 20°C: Not determined.  
Relative density: 1.1  
Solubility in/miscibility: Water: insoluble.  
Also soluble in: most organic solvents.  
Partition coefficient (n-octanol/water): Not determined.  
Ignition temperature: Not determined.  
Decomposition temperature: Not determined.  
Self-ignition temperature: Not determined.  
Viscosity: Not determined.  
Oxidising properties: Non-oxidising (by EC criteria).

9.2. Other information: No further relevant information available.

**10. Section 10. Stability and reactivity:**

10.1. Reactivity: Stable under recommended transport or storage conditions.  
10.2. Chemical stability: Stable under normal conditions.  
10.3. Possibility of hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions.  
10.4. Conditions to avoid: Heat.  
10.5. Incompatible materials: Oxidising agents, acids.  
10.6. Hazardous decomposition products: In combustion emits toxic fumes of carbon dioxide/carbon monoxide, nitrogen oxides.

**11. Section 11. Toxicological information:**

11.1. Information on toxicological effects:

Acute toxicity: Based on available data, the classification criteria are not met.

25154-52-3 Nonylphenol

Oral	LD50	mouse	1231 mg/kg
	LD50	rat	580 mg/kg

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### 140-31-8 2-Piperazin-1-ylethylamine

Intraperitoneal	LD50	mouse	250 mg/kg
Oral	LD50	rat	2140 µl/kg

### 100-51-6 Benzyl alcohol

Intravenous	LD50	rat	53 mg/kg
Oral	LD50	mouse	1360 mg/kg
	LD50	rabbit	1230 mg/kg

### 90-72-2 2,4,6-tris(dimethylaminomethyl)phenol

Oral	LD50	rat	1200 mg/kg
Dermal	LD50	rat	1280 mg/kg

### Relevant effects for mixture:

Effect	Route	Basis
Corrosivity	Ophthalmic, inhalative, dermal	Hazardous: calculated
Sensitisation	Dermal	Hazardous: calculated
Toxicity for reproduction	-	Hazardous: calculated

Skin corrosion/irritation:	Causes severe skin burns and eye damage.
Serious eye damage/irritation:	Based on available data, the classification criteria are not met.
Respiratory or skin sensitization:	May cause an allergic skin reaction.
Germ cell mutagenicity:	Based on available data, the classification criteria are not met.
Carcinogenicity:	Based on available data, the classification criteria are not met.
Reproductive toxicity:	Suspected of damaging fertility. Suspected of damaging the unborn child.
STOT-single exposure:	Based on available data, the classification criteria are not met.
STOT-repeated exposure:	Based on available data, the classification criteria are not met.
Aspiration hazard:	Based on available data, the classification criteria are not met.
Other information:	
After inhalation:	There may be shortness of breath with a burning sensation in the throat. Onset of symptoms may be delayed by a few hours.
After skin contact:	There may be irritation and redness at the site of contact. Blistering may occur.
After eye contact:	There may be severe pain. Corneal burns may occur. May cause permanent damage.
After swallowing:	Corrosive burns may appear around the lips. There may be vomiting. Onset of symptoms may be delayed by a few hours.

## 12. Section 12. Ecological information:

12.1. Toxicity:	
Aquatic toxicity:	No further relevant information available.
12.2. Persistence and degradability:	Only slightly biodegradable.
12.3. Bioaccumulative potential:	Bioaccumulation potential.
12.4. Mobility in soil:	Insoluble in water.
12.5. Results of PBT and vPvB assessment:	This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
12.6. Other adverse effects:	Toxic to aquatic organisms. May cause long term adverse effects in the aquatic environment.

## 13. Section 13. Disposal considerations:

13.1. Waste treatment methods:	
Product disposal:	Transfer to a suitable container and arrange for collection by specialised disposal company. Must not be disposed together with household garbage. Do not allow product to reach sewage system.

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European Waste Catalogue:  
08 04 09\* waste adhesives and sealants containing organic solvents or other hazardous substances  
(\*hazardous waste)

Packagings disposal: Disposal must be made according to official regulations.  
European Waste Catalogue:  
15 01 10\* packaging containing residues of or contaminated by hazardous substances  
(\*hazardous waste)

Other disposal recommendations: Disposal must be made according to official regulations.  
The final decisions on the appropriate waste management method, in line with regional, national and European legislation, and possible adaptation to local conditions, remains the responsibility of the waste treatment operator.

### 14. Section 14. Transport information:

- 14.1. UN number: UN 3259
- 14.2. UN proper shipping name: 3259 AMINES, SOLID, CORROSIVE, N.O.S. (nonylphenol; benzyl alcohol; 3-aminomethyl-3,5,5-trimethylcyclohexylamine)
- 14.3. Transport hazard class(es): 
- Class 8
- Hazard label 8
- 14.4. Packing group: III
- 14.5. Environmental hazards:
- Environmentally hazardous: Yes
- Marine pollutant: No
- 14.6. Special precautions for user: Warning: Corrosive
- Danger Code (Kemler): 80
- 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code: Not applicable
- Transport category: 3
- Tunnel restriction code: E
- UN "Model Regulation": UN 3259, AMINES, SOLID, CORROSIVE, N.O.S. (nonylphenol; benzyl alcohol; 3-aminomethyl-3,5,5-trimethylcyclohexylamine), III, 8

### 15. Section 15. Regulatory information:

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

Used legislation:

Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals, as amended (REACH)

Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures, as amended (CLP)

Regulation (EC) No 648/2004 of the European Parliament and of the Council on detergents, as amended

Commission Decision 2000/532/EC establishing a list of wastes, as amended

Council Directive 89/686/EEC on the approximation of the laws of the Member States relating to personal protective equipment, as amended

Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work, as amended

Commission Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values

Commission Directive 2006/15/EC establishing a second list of indicative occupational exposure limit values

Commission Directive 2009/161/EU establishing a third list of indicative occupational exposure limit values

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Directive 2004/42/CE of the European Parliament and of the Council on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain paints and varnishes and vehicle refinishing products and amending Directive 1999/13/EC, as amended

Substances of Very High Concern (SVHC): 25154-52-3 Nonylphenol

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

**16. Section 16. Other information:**

Relevant H-statements (Section 3):

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.

Abbreviations and acronyms:

CAS: Chemical Abstracts Service (division of the American Chemical Society)

EINECS: European Inventory of Existing Commercial Chemical Substances

LD50: Median dose lethal to 50 % of a test population

N.O.S.: Not Otherwise Specified entry

OEL: Occupational Exposure Limit

PBT: Persistent, Bioaccumulative, Toxic

vPvB: Very Persistent, Very Bioaccumulative

WEL: Workplace exposure limits

Acute Tox. 4: Acute toxicity, category 4

Aquatic Chronic 1: Hazardous to the aquatic environment, category 1

Aquatic Chronic 3: Hazardous to the aquatic environment, category 3

Asp. Tox. 1: Aspiration hazard, category 1

Eye Irrit. 2: Serious eye irritation, category 2

Rep 2: Reproductive toxicity, category 2

Skin Corr. 1: Skin corrosion, category 1

Skin Irrit. 2: Skin irritation, category 2

Skin. Sens. 1: Skin sensitization, category 1

The information contained herein is based on our best knowledge and the present legislation. Further, the Safety Data Sheet has been elaborated on the basis of the original Safety Data Sheet provided by the manufacturer.

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.

**\*Compared to the last version the data has been changed.**