SAFETY DATA SHEET



according to WHMIS 2015 and ANSI Z400.1-2010

Epoxy Resin Putty Hardener

Section 1. Identification

Product identifier	:	Epoxy Resin Putty Hardener
Product code	:	105002

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

Identified uses

Hardener for resins.

Supplier's details	:	WEICON GmbH & Co. KG Königsberger Str. 255 48157 Münster Germany Phone: +49 251 93220
		Fax: +49(0)251 / 9322 - 244 Internet: www.weicon.de
e-mail address of person	:	msds@weicon.de

e-mail address of person responsible for this SDS

National contact

WEICON Canada Inc. 20 Steckle Place, Unit 20 Kitchener, Ontario N2E 2C3, CA www.weicon.ca E-mail: info@weicon.ca Telephone: +1-519-896-5252 Telefax: +1-519-896-5254

Emergency telephone	: +1 866 928 0789 (24h - Toll free)
number	TRANSPORT EMERGENCY CONTACT :+1 866 928 0789 ((24h - Toll free)

Section 2. Hazard identification

Classification of the substance or mixture	:	SKIN IRRITATION - Category 2 SERIOUS EYE DAMAGE - Category 1	
GHS label elements			
Hazard pictograms	:		
Signal word	:	Danger	
Hazard statements	:	H315 - Causes skin irritation. H318 - Causes serious eye damage.	
Precautionary statements			
Prevention	:	P280 - Wear protective gloves. Wear eye or face protection. P264 - Wash thoroughly after handling.	
Response	:	 P362 + P364 - Take off contaminated clothing and wash it before reuse. P302 + P352 - IF ON SKIN: Wash with plenty of water. P332 + P313 - If skin irritation occurs: Get medical advice or attention. P305 + P351 + P338, P310 - IF IN EYES: Rinse cautiously with water for severa minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor. 	ıl
Storage	:	Not applicable.	
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Section 2. Hazard identification

Disposal

: Not applicable.

Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

Ingredient name	% (w/w)	CAS number
penzyl alcohol	≥5 - ≤10	100-51-6
2,4,6-tris(dimethylaminomethyl)phenol	≥1 - ≤5	90-72-2

Ranges if listed above for hazardous ingredient(s) are prescribed ranges. The actual concentration(s) or actual concentration range(s) are being withheld as a trade secret.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First-aid measures

Description of necessary first aid measures

Eye contact	: Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
Inhalation	: Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Skin contact	: Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	: Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

Potential acute health effe	ects
Eye contact	: Causes serious eye damage.
Inhalation	: No known significant effects or critical hazards.
Skin contact	: Causes skin irritation.
Ingestion	: No known significant effects or critical hazards.
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Section 4. First-aid measures

Over-exposure signs/symp	tome
Eye contact	: Adverse symptoms may include the following: pain watering redness
Inhalation	: No specific data.
Skin contact	: Adverse symptoms may include the following: pain or irritation redness blistering may occur
Ingestion	: Adverse symptoms may include the following: stomach pains
Indication of immediate med	ical attention and special treatment needed, if necessary
Notes to physician	: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments	: No specific treatment.
Protection of first-aiders	: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media	
Suitable extinguishing media	: Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: None known.
Specific hazards arising from the chemical	: In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous thermal decomposition products	: Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides
Special protective actions for fire-fighters	: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	 Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	:	No action shall be taken involving ar Evacuate surrounding areas. Keep entering. Do not touch or walk throu mist. Provide adequate ventilation. inadequate. Put on appropriate pers	unnecessary and unpr igh spilled material. D Wear appropriate res	rotected pers to not breathe pirator when	onnel fro e vapor o	or
For emergency responders	:	If specialized clothing is required to a information in Section 8 on suitable information in "For non-emergency p	and unsuitable materia			
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Section 6. Accidental release measures

Environmental precautions	: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill: Stop leak if without risk. Move containers from spill area. Dilute with water and mop
up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry
material and place in an appropriate waste disposal container. Dispose of via a
licensed waste disposal contractor.

Section 7. Handling and storage

Precautions for safe handling

Protective measures	t on appropriate personal protective equipment (see Section 8). Do es or on skin or clothing. Do not breathe vapor or mist. Do not inger rmal use the material presents a respiratory hazard, use only with a ntilation or wear appropriate respirator. Keep in the original container proved alternative made from a compatible material, kept tightly close use. Empty containers retain product residue and can be hazardous use container.	st. If during lequate er or an sed when not
Advice on general occupational hygiene	ting, drinking and smoking should be prohibited in areas where this indled, stored and processed. Workers should wash hands and face ting, drinking and smoking. Remove contaminated clothing and prot uipment before entering eating areas. See also Section 8 for addition prmation on hygiene measures.	e before ective
Conditions for safe storage, including any incompatibilities	bre in accordance with local regulations. Store in original container p m direct sunlight in a dry, cool and well-ventilated area, away from in aterials (see Section 10) and food and drink. Store locked up. Keep ntly closed and sealed until ready for use. Containers that have been store to be carefully resealed and kept upright to prevent leakage. Do no labeled containers. Use appropriate containment to avoid environment atemination. See Section 10 for incompatible materials before hand	ncompatible container n opened t store in ental

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
penzyl alcohol	OARS WEEL (United States, 1/2021). TWA: 10 ppm 8 hours.

Appropriate engineering controls	: If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
Environmental exposure controls	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
Individual protection measu	<u>8</u>
Hygiene measures	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

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Section 8. Exposure controls/personal protection

•	· ·
Eye/face protection	: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.
Skin protection	
Hand protection	: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. Recommended : 1 - 4 hours (breakthrough time): nitrile rubber ; 4 - 8 hours (breakthrough time): Viton®/butyl rubber
Body protection	 Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other skin protection	 Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory protection	: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Recommended : organic vapor (Type AX) and particulate filter

Section 9. Physical and chemical properties

Appearance

<u>, appearance</u>	
Physical state	: Liquid.
Color	: Blue.
Odor	: Agreeable.
Odor threshold	: Not available.
рН	: Not applicable.
Melting point/freezing point	: Not available.
Boiling point, initial boiling point, and boiling range	: Not available.
Flash point	: Closed cup: >93.3°C (>199.9°F) [Pensky-Martens]
Evaporation rate	: Not available.
Flammability	: Not available.
Lower and upper explosion limit/flammability limit	: Not available.

:

Vapor pressure

	Vapor Pressure at 20°C			۱ N	Vapor pressure at 50°C			
Ingredient name	mm Hg	kPa	Method	mm Hg	kPa	Method		
2 ,4,6-tris(dimethylaminomethyl) phenol	0.06	0.008	EU A.4					
benzyl alcohol	0.05	0.0067						
Relative vapor density	: Not ava	ailable.			ł			
Relative density	: Not ava	ailable.						
Density	: 2 g/cm	3						
Solubility(ies) Not available.	:							
Solubility in water	: Not ava	ailable.						
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Section 9. Physical and chemical properties

Miscible with water	:	No.				
Partition coefficient: n- octanol/water	:	Not applicabl	e.			
Auto-ignition temperature	:					
Ingredient name		o	С	°F	Method	
2,4,6-tris(dimethylaminomethyl)pher	nol	3	82	719.6	EU A.15	
benzyl alcohol		4	36	816.8		
Decomposition temperature	:	Not available				
Viscosity	:	Not available				
Flow time (ISO 2431)	:	Not available				
Particle characteristics						
Median particle size	:	Not applicabl	e.			
Section 10. Stabili	ty	and rea	ctivity			
Reactivity	:	No specific te	est data re	ated to reactivity a	vailable for this product o	r its ingredients
Chemical stability	:	The product i	s stable.			

: Under normal conditions of storage and use, hazardous reactions will not occur.

: Under normal conditions of storage and use, hazardous decomposition products

products should not be produced. Section 11. Toxicological information

: No specific data.

: No specific data.

Information on toxicological effects

Possibility of hazardous

Conditions to avoid

Incompatible materials

Hazardous decomposition

reactions

Product/ingredient name	Result	Species	Dose	Exposure
penzyl alcohol	LD50 Dermal	Rabbit	2000 mg/kg	-
	LD50 Oral	Mouse	1360 mg/kg	-
	LD50 Oral	Mouse	1360 mg/kg	-
	LD50 Oral	Rabbit	1040 mg/kg	-
	LD50 Oral	Rabbit	1040 mg/kg	-
	LD50 Oral	Rat	1.5 mL/kg	-
	LD50 Oral	Rat	1230 mg/kg	-
	LD50 Oral	Rat	1660 mg/kg	-
2,4,6-tris (dimethylaminomethyl) phenol	LD50 Dermal	Rat	1280 mg/kg	-
	LD50 Oral	Rat	1200 mg/kg	-
	LD50 Oral	Rat	1673 mg/kg	-

Section 11. Toxicological information

	LD50 Oral		Rat	2169 m	g/kg	-	
Acute toxicity estimates							
Route				ATE valu	ie		
Øral		5263.16 mg	ı/kg				
Inhalation (dusts and mists)		27.27 mg/l					

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
benzyl alcohol	Skin - Mild irritant	Man	-	48 hours 16 mg	-
	Skin - Moderate irritant	Pig	-	100 %	-
	Skin - Moderate irritant	Rabbit	-	24 hours 100 mg	-
2,4,6-tris (dimethylaminomethyl) phenol	Eyes - Severe irritant	Rabbit	-	24 hours 50 ug	-
	Skin - Mild irritant	Rat	-	0.025 MI	-
	Skin - Severe irritant	Rabbit	-	24 hours 2 mg	-
	Skin - Severe irritant	Rat	-	0.25 MI	-

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Reproductive toxicity

Not available.

<u>Teratogenicity</u>

Not available.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely	: Not available.
routes of exposure	

Potential acute health effects		
F	-	

Eye contact	: Causes serious eye damage.	
Inhalation	: No known significant effects or critical hazards.	
Skin contact	: Causes skin irritation.	
Ingestion	: No known significant effects or critical hazards.	

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Section 11. Toxicological information

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: Adverse symptoms may include the following: pain watering redness
Inhalation	: No specific data.
Skin contact	: Adverse symptoms may include the following: pain or irritation redness blistering may occur
Ingestion	: Adverse symptoms may include the following: stomach pains

Delayed and immediate effects and also chronic effects from short and long term exposure

<u>Short term exposure</u>	
Potential immediate effects	: Not available.
Potential delayed effects	: Not available.
<u>Long term exposure</u>	
Potential immediate effects	: Not available.
Potential delayed effects	: Not available.
Potential chronic health effe	ects
Not available.	
General	: No known significant effects or critical hazards.
Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Teratogenicity	: No known significant effects or critical hazards.
Developmental effects	: No known significant effects or critical hazards.
Fertility effects	: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/ kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
₽ poxy Resin Putty Hardener	5263.2	N/A	N/A	N/A	27.3
benzyl alcohol	500	N/A	N/A	N/A	1.5
2,4,6-tris(dimethylaminomethyl)phenol	500	N/A	N/A	N/A	N/A

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
benzyl alcohol	Acute LC50 10000 μg/l Fresh water	Fish - Lepomis macrochirus	96 hours
	Acute LC50 15000 µg/l Marine water	Fish - Menidia beryllina	96 hours
	Acute LC50 460000 μg/l Fresh water	Fish - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling)	96 hours

Persistence and degradability

Not available.

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
penzyl alcohol 2,4,6-tris (dimethylaminomethyl)phenol	0.87 0.219	-	low low

<u>Mobility in soil</u>

Soil/water partition	: Not available.
coefficient (Koc)	

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	TDG Classification	DOT Classification	IMDG	IATA
UN number	Not available.	Not available.	Not available.	Not available.
UN proper shipping name	Not available.	Not available.	Not available.	Not available.
Transport hazard class(es)	Not available.	Not available.	Not available.	Not available.
Packing group	-	-	-	-
Environmental hazards	No.	No.	No.	No.

Section 14. Transport information

Special precautions for user	:	Transport within user's premises: always transport in closed containers that are
		upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according : Not available. to IMO instruments

Section 15. Regulatory information

<u>Canadian lists</u>

Canadian NPRI

: None of the components are listed.

CEPA Toxic substances : None of the components are listed.

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list Australia : All components are listed or exempted. Canada : All components are listed or exempted. China : All components are listed or exempted. **Eurasian Economic Union** : **Russian Federation inventory**: All components are listed or exempted. Japan : Japan inventory (CSCL): All components are listed or exempted. Japan inventory (ISHL): Not determined. **New Zealand** : All components are listed or exempted. Philippines : All components are listed or exempted. **Republic of Korea** : All components are listed or exempted. Taiwan : All components are listed or exempted. Thailand : All components are listed or exempted. Turkey : All components are listed or exempted. **United States** : All components are active or exempted. Viet Nam : All components are listed or exempted.

Section 16. Other information

<u>History</u>

Date of printing	: 12/23/2022
Date of issue/Date of revision	: 10/19/2022
Date of previous issue	: 9/16/2021
Version	: 1.02

Section 16. Other information

Key to abbreviations	: ATE = Acute Toxicity Estimate
	BCF = Bioconcentration Factor
	GHS = Globally Harmonized System of Classification and Labelling of Chemicals
	HPR = Hazardous Products Regulations
	IATA = International Air Transport Association
	IBC = Intermediate Bulk Container
	IMDG = International Maritime Dangerous Goods
	LogPow = logarithm of the octanol/water partition coefficient
	MARPOL = International Convention for the Prevention of Pollution From Ships,
	1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
	N/A = Not available
	SGG = Segregation Group
	UN = United Nations

Procedure used to derive the classification

Classification	Justification
	Calculation method Calculation method

References : Not available.

✓ Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the abovenamed supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.