Epoxy Repair Mortar 5180

Description

RUST-OLEUM® Epoxy Repair Mortar 5180 is an incredibly tough, two-component epoxy resin mortar for repairing damaged, dished or dangerous concrete or stone floors.

Main Properties

Unequalled hardness and epoxy bonding power – fast curing and virtually indestructible – provides a permanent repair to badly cracked and worn concrete and stone floors. Will fill holes of any shape or size, gaps, nosings, cracks, etc. May be feather edged.

Recommended Uses

For repair damaged, dished or dangerous concrete or stone floors.

Technical Data

Appearance:	mortar
Colour:	grey
Density:	1.7 kg/dm³
Solids content:	100% (mixed product, In volume)
VOC-content:	0 g/l
Tennsile strength:	15.4 MN/m2
Flexural strength:	55.9 MN/m2
Compressive strength:	55.2 MN/m2
Drying Times	20°C/50% r.h.
Full hardness:	three to six hours according to the temperature. Curing time will be extended by low temperatures. Temperatures of 10°C and below will arrest the curing of the product. Remark: when fully cured, detergents and degreasers may be used to clean the surface. Do not steam clean or subject to temperatures in excess of 60°C.
Coverage	
Theoretical:	1.2m² at 5mm thick per 10kg
Practical:	Practical coverage depends on many factors such as porosity and roughness of the substrate and material losses during application.

Surface Preparation

Concrete and stone surfaces should be dry and free from previous coatings, contaminants and loose material and at least four weeks old. Very smooth concrete or concrete with soft laitance should be etched with Rust-Oleum® Surfa-Etch 108. Grease or oil should be removed with Rust-Oleum® Alkaline Cleaner ND14 and the area thoroughly washed off and allowed to become completely dry.

Direction for Use

The pack contains a granular resinous material and one or more bottles (depending on the packaging size) of curing agent. Mix the granular resinous material with the curing agent on a board. It is important that mixing should be carried out very thoroughly. The ratio of resin to curing agent is critical and the mixing of part packs is not recommended.

Thinning & Application

Trowel vigorously over the prepared surface. Final levelling should be carried out with a steel float. To prevent ‘drag’ it is advisable to wipe the blade of the tool frequently with a rag moistened (but not saturated) with white spirit.

Cleanup:

Rust-Oleum Thinner 160.

Remarks

Product can be applied from feather-edge to 50mm depth (full strength is achieved at 5mm). Build up layers of 5180 if the depth is significantly greater than 50mm or use Rust-Oleum 5190 (Deep Fill Repair Mortar).

Applying the product directly in a too high film thickness can reduce the performance of the cured material.

Application Conditions

Temperature of material, air and substrate between 10 and 35°C and relative humidity below 85%.
The substrate temperature must be at least 3°C above dew point.

Safety

Consult Safety Data Sheet and Safety Information printed on the can. Food products must be removed from the area during application and cure. Please dispose of container with care and in accordance with current regulations.

Shelf Life / Storage Conditions

Minimal 1 year from date of production in unopened cans, if stored in dry, well ventilated areas, not in direct sunlight at temperatures between 5° and 35°C.

If stored for long periods, the resin/filler material should be thoroughly mixed prior to addition of the bottles of curing agent.

SAFETY DATA SHEET

5180 Epoxy Repair Mortar - hardener

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product name and/or code : 5180 Epoxy Repair Mortar - hardener

Manufacturer : Rust-Oleum Netherlands BV, PO. Box 138, NL-4700 AC Roosendaal, The Netherlands
NV Martin Mathys, Kolenbergstraat 23, B-3545 Zelem, Belgium

Emergency phone number : Rust-Oleum: +31(0)165-593636; Fax +31(0)165-593600
Martin Mathys: +32(0)13-460200; Fax +32(0)13-460201

e-Mail address of person responsible for this SDS : rpmeurohas@ro-m.com

Product use : Hardener for 2-component paint.

2. HAZARDS IDENTIFICATION

The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification : Repr. Cat. 3; R62, R63
Xn; R22
C; R34
R43
N; R51/53

Human health hazards : Possible risk of impaired fertility. Possible risk of harm to the unborn child. Harmful if swallowed. Causes burns. May cause sensitization by skin contact.

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

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances presenting a health or environmental hazard within the meaning of the Dangerous Substances Directive 67/548/EEC.

Chemical name	CAS #	%	EU no.	Classification	
fatty acids, tall-oil, reaction products with tetraethylenepentamine	68953-36-6	25 - 50	273-201-6	Xi; R41, R36/38	[1]
2-piperazin-1-ylethylamine	140-31-8	10 - 25	205-411-0	Xn; R21/22 C; R34 R43 R52/53	[1]
nonylphenol	25154-52-3	10 - 25	246-672-0	Repr. Cat. 3; R62, R63 Xn; R22 C; R34 N; R50/53	[1]
3,6,9-triazaundecamethylenediamine	112-57-2	2.5 - 5	203-986-2	Xn; R21/22 C; R34 R43 N; R51/53	[1]
See Section 16 for the full text of the R-phrases declared above.					

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

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

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

4. FIRST AID MEASURES

First aid measures

General : In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and seek medical advice.

Inhalation : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

Skin contact : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.

Eye contact : Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.

Ingestion : If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do not induce vomiting.

5. FIRE-FIGHTING MEASURES

Extinguishing media : Recommended: alcohol-resistant foam, CO_2, powders, water spray.

Recommendations : Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard. Appropriate breathing apparatus may be required.
Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses.

Hazardous combustion products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
metal oxide/oxides

6. ACCIDENTAL RELEASE MEASURES

Personal precautions : Exclude sources of ignition and ventilate the area. Avoid breathing vapor or mist. Refer to protective measures listed in sections 7 and 8.

Spill : Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Preferably clean with a detergent. Avoid using solvents.

Note: see section 8 for personal protective equipment and section 13 for waste disposal.

7. HANDLING AND STORAGE

Handling : Keep away from heat, sparks and flame. No sparking tools should be used.
Avoid contact with skin and eyes. Avoid the inhalation of dust, particulates, spray or mist arising from the application of this preparation. Avoid inhalation of dust from sanding.
Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.
Put on appropriate personal protective equipment (see Section 8).
Never use pressure to empty. Container is not a pressure vessel.
Always keep in containers made from the same material as the original one.
Comply with the health and safety at work laws.

Storage : Store in accordance with local regulations.
Notes on joint storage
Keep away from: oxidizing agents, strong alkalis, strong acids.
Additional information on storage conditions
Observe label precautions. Store in a dry, cool and well-ventilated area. Keep away from heat and direct sunlight. Keep away from sources of ignition. No smoking. Prevent unauthorized access. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering measures : Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapors below the OEL, suitable respiratory protection must be worn.

Occupational exposure limits : Not available.

Exposure controls/personal protection

Occupational exposure 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.

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. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Respiratory protection : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

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.
Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred. The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.

Eye 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 or dusts.
Recommended: safety glasses with side-shields

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Skin 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.

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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state : Liquid.

Odor : Ammoniacal.

Color : Gray.

Flash point : Closed cup: >100°C (>212°F)

Relative density (kg/L) : 1

10. STABILITY AND REACTIVITY

Stable under recommended storage and handling conditions (see section 7).

Hazardous decomposition products: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

Keep away from the following materials to prevent strong exothermic reactions: oxidizing agents, strong alkalis, strong acids.

11. TOXICOLOGICAL INFORMATION

There are no data available on the preparation itself. The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and classified for toxicological hazards accordingly. See sections 3 and 15 for details.

Corrosive to eyes and skin. May cause allergic reactions. Ingestion may cause severe gastric disturbances.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Contains 2-piperazin-1-ylethylamine, 3,6,9-triazaundecamethylenediamine. May produce an allergic reaction.

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
2-piperazin-1-ylethylamine	LD50 Dermal	Rabbit	880 uL/kg	-
	LD50 Oral	Rat	2140 uL/kg	-
nonylphenol	LD50 Dermal	Rabbit	2140 mg/kg	-
	LD50 Oral	Rat	580 mg/kg	-
	TDLo Intraperitoneal	Rat	60 mg/kg	-
3,6,9-triazaundecamethylenediamine	LD50 Dermal	Rabbit	660 uL/kg	-
	LD50 Intraperitoneal	Rat	205 mg/kg	-
	LD50 Oral	Rat	3990 mg/kg	-
	LD50 Oral	Rat	2140 mg/kg	-

12. ECOLOGICAL INFORMATION

There are no data available on the preparation itself.
Do not allow to enter drains or watercourses.

The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and is classified for eco-toxicological properties accordingly. See sections 2 and 15 for details.

Aquatic ecotoxicity

Ingredient name	Result	Species	Exposure
2-piperazin-1-ylethylamine	Acute LC50 2460 to 2190000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - 31 days - 21 mm - 0.147 g	96 hours
nonylphenol	Acute EC50 0.19 to 0.21 mg/l Fresh water	Daphnia - Water flea - Daphnia magna - <24 hours	48 hours
	Acute LC50 0.195 mg/l	Fish - Rainbow trout (oncorhynchus mykiss)	72 hours
	Acute LC50 0.135 to 0.187 mg/l Fresh water	Fish - Fathead minnow - Pimephales promelas - 31 to 35 days - 220 mg	96 hours
	Chronic NOEC 77.3 ug/L Fresh water	Daphnia - Water flea - Daphnia magna - Neonate - <24 hours	21 days
	Chronic NOEC 6 ug/L Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss - Oocyte, ova	91 days
	Chronic NOEC 3 ug/L Fresh water	Fish - Medaka, high-eyes - Oryzias latipes - Fry - 1 days post-hatch	100 days

Ecological information

Biodegradability

Conclusion/Remark : Not available.

Bioaccumulative potential

Ingredient name	$LogP_{ow}$	BCF	Potential
nonylphenol	3.28	154.881661891	high

13. DISPOSAL CONSIDERATIONS

Do not allow to enter drains or watercourses.
Dispose of according to all federal, state and local applicable regulations.

European waste catalogue (EWC) : The European Waste Catalogue classification of this product, when disposed of as waste, is: 08 01 11* waste paint and varnish containing organic solvents or other dangerous substances. If this product is mixed with other wastes, this code may no longer apply. If mixed with other wastes, the appropriate code should be assigned. For further information, contact your local waste authority.

Hazardous waste : Yes.

14. TRANSPORT INFORMATION

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.

International transport regulations

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
ADR/RID Class	UN 2735	Polyamines, liquid, corrosive, n.o.s. (2-piperazin-1-ylethylamine)	8	III		**Limited quantity** LQ7 **Tunnel code** (E) **Remarks** (≤ 5L:) Limited Quantity - ADR/IMDG 3.4
IMDG Class	UN 2735	Polyamines, liquid, corrosive, n.o.s. (2-piperazin-1-ylethylamine). Marine pollutant (nonylphenol)	8	III		**Emergency schedules (EmS)** F-A, S-B
IATA Class	UN 2735	Polyamines, liquid, corrosive, n.o.s. (2-piperazin-1-ylethylamine)	8	III		**Passenger and Cargo Aircraft** Quantity limitation: 5 L Packaging instructions: 818 **Cargo Aircraft Only** Quantity limitation: 60 L Packaging instructions: 820 **Limited Quantities - Passenger Aircraft** Quantity limitation: 1 L Packaging instructions: Y818

PG* : Packing group

15. REGULATORY INFORMATION

EU regulations : The product is classified and labelled for supply in accordance with the Directive 1999/45/EC as follows:

Hazard symbol or symbols :

Corrosive, Dangerous for the environment

Risk phrases : R62- Possible risk of impaired fertility.
R63- Possible risk of harm to the unborn child.
R22- Harmful if swallowed.
R34- Causes burns.
R43- May cause sensitization by skin contact.
R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

15. REGULATORY INFORMATION

Safety phrases : S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39- Wear suitable protective clothing, gloves and eye/face protection.
S45- In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S60- This material and its container must be disposed of as hazardous waste.
S61- Avoid release to the environment. Refer to special instructions/safety data sheet.

Contains : 2-piperazin-1-ylethylamine
nonylphenol
3,6,9-triazaundecamethylenediamine

Europe inventory : All components are listed or exempted.

Other EU regulations

CN code : 3824 90 70

Industrial use : The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation. The provisions of the national health and safety at work regulations apply to the use of this product at work.

16. OTHER INFORMATION

Full text of R-phrases referred to in sections 2 and 3 - United Kingdom (UK) : R62- Possible risk of impaired fertility.
R63- Possible risk of harm to the unborn child.
R22- Harmful if swallowed.
R21/22- Harmful in contact with skin and if swallowed.
R34- Causes burns.
R41- Risk of serious damage to eyes.
R36/38- Irritating to eyes and skin.
R43- May cause sensitization by skin contact.
R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R52/53- Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

The information in this Safety Data Sheet is required pursuant to EU Directive 91/155/EEC and its amendments.

Indicates information that has changed from previously issued version.

Notice to reader

The information in this SDS is based on the present state of our knowledge and on current laws. The product is not to be used for purposes other than those specified under section 1 without first obtaining written handling instructions. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. The information in this SDS is meant to be a description of the safety requirements for our product. It is not to be considered a guarantee of the product's properties. *©Copyright by Rust-Oleum Netherlands B.V. / Martin Mathys B.V.*