

RHINO CONCRETE CRACK LOCK INSTRUCTIONS

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01

WHAT COMES IN THE STAPLE KIT?



KIT INCLUDES

- (20) Concrete Crack Locks
- (1) Tube of RCF High Strength Anchoring Epoxy Paste
- (1) Static Epoxy Nozzle
- Gloves and instructions

PRODUCTS COMMONLY USED WITH THIS REPAIR



Rhino Dual Epoxy Gun
300/300 ml or 300/150 ml gun



Rhino Dual Power Epoxy Gun
300/300 ml gun



Tough Wipes by Rhino
Removes Epoxy!

RECOMMENDED POWER TOOLS

(TOOLS MAY VARY DEPENDING ON PROJECT)

5-Inch Grinder w/Dust Shroud Kit



Use before and after installation
**USE DIAMOND CUP WHEEL

10-Gallon Dust Extractor



Collects dust while attached to
grinder and shroud tools

Tuck Point Grinder w/Dust Shroud Tool



Use to cut across crack
**USE SINGLE DIAMOND BLADE

Hammer Drill



Use to drill holes
**USE CHISEL OR SPADE TIP ATTACHMENT

YOU WILL ALSO NEED...

- Safety Goggles
- Respirator Mask
- Hard Hat
- Coveralls
- Drop Cloth/plastic
- Marker
- Hammer
- Epoxy Gun
- Measuring Tape
- Putty Knife

SAFETY WARNINGS

Please read and follow safety procedures for all tools and wear all safety equipment during install.

When using power tools please follow all EPA guidelines for lead paint removal. For more information on EPA guidelines visit www.epa.gov.



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PLEASE READ ALL DIRECTIONS CAREFULLY & WEAR SAFETY GOGGLES BEFORE INSTALLING



01 PREP

- Lay plastic or drop cloth around work surface (if needed)
- Grind across surface of crack to ensure it is smooth

Tools: Grinder, plastic, dropcloth, or tape



02 CRACK LOCK LOCATIONS

- Install the first crack lock as close to the beginning of the crack as possible
- Crack locks should be installed every 8" and criss crossed at every other crack lock location
- Center the crack lock to the crack and trace the outline of the crack lock

Note: crack lock should always be installed perpendicular with the crack except when crossing

Tools: Marker and measuring tape



03 CUTTING

- Using the tuck point grinder, make the cut across the crack for the crack lock
- Make sure the cut is full depth from hole location to hole location

Note: Depth can vary, cut a minimum of 1/2" deep and deeper when crossing crack locks

Tools: Tuck point grinder,

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03 DRILL

- Line the crack lock ends up with the ground area
- Mark and drill the holes the same depth as the cut
- Drill 1/2" holes at each end of the cut where the lock will be inserted

Tools: Drill, 1/2 inch masonry drill bit



04 INSTALL

- Fill the cut and holes with RCF High Strength Anchoring Epoxy Paste
- Insert Crack Lock into the cut
- Top off the cut with RCF High Strength Anchoring Epoxy Paste until it is even with your concrete surface
- Scrap away any excess and apply to the crack or the next crack lock location

Tools: Putty knife



01: Press Crack Lock into epoxy 02: Apply epoxy over crack lock 03: Fill prep surface



05 FINISHING PRODUCT (optional)

- If the product settles you can add more epoxy to the cuts. You can grind any excess epoxy off with a grinder once it has cured
- Once RCF High Strength Anchoring Epoxy Paste has dried and all clean up/grinding has been done, you can paint or seal over the repair



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MATERIAL SAFETY DATA SHEET

RCF High Strength Anchoring Epoxy Paste | Revision Date 1/30/2016

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01: PRODUCT & COMPANY IDENTIFICATION

RHINO PRODUCTS USA, INC.
1633 THORNWOOD DRIVE
HEATH, OH 43056

Product Name: RCF High Strength Anchoring Epoxy Paste
Common Name: Polyamine

Product Code: RCF-HSEP
Chemical Family: Polyamine
Synonyms: Amines Liquid Corrosive
Product Use: Epoxy Bonding Agent
Emergency Phone: CHEMTREC 1 800 424 9300

02: HAZARDS IDENTIFICATION

Route of Entry: Eyes, Skin, Swallowing, Inhalation
Target Organs: None Known
Inhalation: May cause irritation to nose and throat
Skin Contact: May cause irritation and dermatitis
Eye Contact: May cause irritation, sensitization and may lead to eye damage
Ingestion: May cause irritation of the mouth, stomach and sensitization

Rating Scale: 0-4

HMS II-Ratings: Health = 3, Fire = 1, Reactivity = 2
HMS III-Ratings: Health = 3, Fire = 1, Physical Hazard = 2
NFPA-Ratings: Health = 3, Fire = 1, Reactivity = 2

03: COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients:

| Cas# | Chemical Name | % | OSHA PEL | ACGUH TLV |
|-------------|---|------|----------|-----------|
| Component A | | | | |
| 25085-99-8 | Propane, 2,2-bis[p-(2,3-epoxypropoxy)phenyl]-, polymers | >80% | NE | NA |
| 13463-67-7 | Titanium Dioxide | <10% | NE | NE |
| 68611-44-9 | Amorphous Silicon Dioxide | <10% | NE | NE |
| Component B | | | | |
| 84852-15-3 | Nonylphenol | <40% | NE | NE |
| 140-31-8 | Aminoethylpiperazine | >10% | NE | NE |
| 1477-55-0 | 1,3-Benzenedimethabamine | >20% | NE | NE |
| 90-72-2 | 2,4,6 Tri(dimethylaminomethyl)phenol | <10% | 10mg/m3 | 5mg/m3 |
| 112-24-3 | Triethylenetetramine | <10% | NE | NE |
| 68611-44-9 | Amorphous Silicon Dioxide | <10% | NE | NE |
| 1317-65-3 | Calcium Carbonate | >20% | NE | NE |

None of the remaining components are considered a hazardous material or carcinogen (1910.1200 Hazard Communication (d) 4.)

NE= Not Established NA=Not Applicable

04: FIRST AID MEASURES

Inhalation: If respiratory irritation occurs, go to fresh air, flood work area with fresh air. If irritation continues seek medical attention.
Skin Contact: Remove contaminated clothing and shoes. Wash affected area(s) thoroughly with soap and water. If irritation persists, seek medical attention. SOLVENTS SHOULD NOT BE USED because they carry the irritant into the skin.
Eye Contact: Flush the eyes with plenty of water for at least 15 minutes. If necessary, gently hold eyelids open during the flush. Immediately seek medical attention.
Ingestion: Obtain immediate medical attention. Do not induce vomiting. Should vomiting occur, be sure to keep victim's head below hips to avoid aspiration of vomit into the lungs.

05: FIRE FIGHTING MEASURES

Flash Point: >200F
Flash Point Method: Pensky Martens Closed Cup
Burning Rate: No data available
Autoignition Temp: No data available
LEL: NA
UEL: NA

Special Fire Fighting Procedures: none. Avoid breathing smoke. NFPA Class B-C extinguisher (dry chemical or foam) for class 1C fires. Water spray may be ineffective on fire but can protect fire-fighters and cool closed containers. Use fog nozzles if water is used. Use supplied breathing masks.



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06: ACCIDENTAL RELEASE MEASURES

Personal Precautions: Avoid all personal contact. In enclosed areas, cleanup personnel should wear self-contained breathing apparatus.
Environmental Precautions: Cover spills with sawdust, vermiculite, or other absorbent material to minimize spreading of the material before collecting.

07: HANDLING AND STORAGE

Handling Precautions: For professional use only. Avoid eye/skin contact. Wash after using and before eating or smoking. Avoid breathing vapors. Use as directed. Avoid uncontrolled mixing with other mixtures (strong acids, bases and oxidizers). Do not use solvent to thin. Respiratory protection is required when ventilation is inadequate. NIOSH/OSHA approved respirators should be provided and worn.
Storage Requirements: Store in cool/dry location. Do not allow material to freeze, as product may be damaged. Store away from sparks and open flames.

08: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: HMIS PP, H | Splash Goggles, Gloves, Apron, Vapor Respirator Use local and general exhaust ventilation to maintain airborne concentrations below TLV. Suitable respiratory equipment should be used in cases of insufficient ventilation or where operational procedures demand it.
Personal Protective Equipment: RESPIRATORY PROTECTION: None normally required. Use a NIOSH approved organic vapor chemical cartridge respirator when air movement is inadequate to control vapor build-up.
EYE/FACE PROTECTION: Wear splash proof chemical goggles/ full face shield if there is a potential for splashing.
SKIN / BODY PROTECTION: Wear Suitable gloves (neoprene, nitrile rubber or PVC) and protective clothing to mitigate exposure.
OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Use protective clothing which is chemical resistant to this material. Safety shoes and boots should also be chemical resistant.

09: PHYSICAL & CHEMICAL PROPERTIES

Appearance: Component A (white paste) Component B (black paste)
Physical State: paste
Order: Component A (Mild) Component B (Amine odor)
Freezing/Melting Point: ND/NE
pH: ND
Solubility: Insoluble
Vapor Pressure: NE
Vapor Density: (Air = 1) > 1
Spec Grav./Density: Component A (1.2) Component B (1.8)
Evp Rate: Slower than Butyl Acetate
Viscosity: Brookfield 500,000 cps (Part A) and 500,000cps (Part B)

10: STABILITY AND REACTIVITY

Stability: Stable
Conditions to Avoid: None
Materials to Avoid: Strong oxidizers, acids and bases
Hazardous Decomposition Products: CO, CO₂, NO_x

11: TOXICOLOGICAL INFORMATION

No data available.

12: ECOLOGICAL INFORMATION

No data available.

13: DISPOSAL CONSIDERATIONS

When disposed of properly, this material does not meet RCRA classification or listing for hazardous waste. Never dispose of liquid to a landfill. Spilled material should be stabilized or solidified prior to disposal. Once stabilized/solidified, the material may be disposed of through normal means. Certain localities and state laws have specific disposal requirements for non-hazardous industrial chemicals. Consult local municipal authorities, landfill personnel or disposal companies for details prior to any disposal activity. Always follow local, state and federal regulations.

14: TRANSPORT INFORMATION

This product is not regulated as a hazardous material for transportation.



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15: REGULATORY INFORMATION

This MSDS has been prepared in accordance with Federal OSHA Hazard Communication Standard 29 CFR 1910.1200.

16: OTHER INFORMATION

The information and recommendations in this document are based on the best information available to us at the time of preparation. We make no other warranty, expressed or implied, as to its correctness or completeness, or as to the results or reliance of this product.

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all the information

User Responsibility: The information in this document cannot be expected to cover all possible individual situations. As the user has the responsibility to provide a safe workplace, all aspects of an individual operation should be examined to determine if, or where, precautions, in addition to those described herein, are required. Any health hazard and safety information herein should be distributed to customers or employees as applicable.

17: DISCLAIMER

The information contained herein is, to the best of our knowledge and belief, accurate and current as of the date of this MSDS. However, since the conditions of handling and use are beyond our control, we make no guarantee of results and assume no liability for damages incurred by use of this material. All chemicals may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist. Final determination of suitability of the chemical is the sole responsibility of the user. No representation or warranties, either expressed or implied, as to its correctness or completeness, or as of merchantability, fitness for a particular purpose, or any other nature are made hereunder with respect to the information contained herein or the chemical to which the information refers or as to the results or reliance of this product. It is the responsibility of the user to comply with all applicable federal, state and local laws and regulations.

END OF MSDS DOCUMENT



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