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200 LIME-SOLV

1. PRODUCT DATA

Date of Preparation: March 1, 2015

Product Name: 200 Lime-Solv

Producer: Diedrich Technologies, A Hohmann & Barnard Company, 310 Wayto Road, Schenectady, NY 12303

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This product is manufactured for Commercial/Industrial use. Not recommended for: Household use.

2. PRODUCT DESCRIPTION

Diedrich 200 Lime-Solv is a combination of organic and inorganic acids, wetting agents and inhibitors for use in the final clean up of new masonry. 200 Lime-Solv efficiently cleans off residual mortar, day to day soiling, and staining that occurs on job sites. It will work on red and dark colored brick, concrete block and varieties of new masonry construction not susceptible to metallic staining.

Wetting agents and inhibitors in 200 Lime-Solv permit it to cling to masonry surfaces for an extended dwell period. This extended dwell time permits a safer low acid concentration to be used in comparison to customary harsh muriatic acid washes. This results in equal if not better cleaning while exposing the masonry to less actual acid.

200 Lime-Solv quickly loosens mortar residue and when removed with high or low pressure water virtually all residue will be washed away with little or no agitation. When used as directed 200 Lime-Solv will not cause acid burns or streaks.

Being a concentrate, Lime-Solv is a versatile product that can be diluted as job conditions dictate. (Example: 1 gallon of 200 Lime-Solv can be diluted to make from 5 to as much as 50 gallons).

3. LIMITATIONS

200 Lime Solv is not recommended for use on light colored brick, porous stone (sandstone), large limestone areas (other than trim), or where manganese or metal fillers have been added to brick and tile. (See Diedrich 202V Vana-Stop.) Extra care should be taken when used on glazed

substrates and colored mortar; 200 Lime-Solv may not be compatible with these surfaces. Test applications must be accomplished to ensure there are no adverse reactions such as bleaching and etching. 200 Lime-Solv will not clean pollution and carbon deposits or smoke and fire residue from masonry and stone surfaces. See product literature on Diedrich Restoration Cleaners.

4. TEST PROCEDURES

A test patch approximately 4 ft. x 4 ft. is required to be cleaned prior to full scale operations. The test areas are necessary to determine compatibility and required end results. Individual masonry types must be tested. Inspection of the test areas should occur after a 3 to 7 day dry time. The test patch should be available for the architect to inspect and approve, then remain as the standard for the project.

5. DILUTIONS

As with any acid based material like 200 Lime-Solv, water used for dilution should be placed in a rubber or polyethylene container first, then slowly add the 200 Lime-Solv. Metal containers and tools are never to be used, as acids and their fumes will have a detrimental effect on such containers and could explode. The suggested dilution rates of 200 Lime-Solv concentrate are 4 to 8 parts of water to 1 part 200 Lime-Solv. High strength mortar/grout or very porous masonry may necessitate the use of stronger solution than normal. Adjust rates of dilution as indicated by the test patches.

CONCRETE & CLAY BLOCK:

1 part Lime-Solv to 4 parts water

HARD BURNED PINK, SALMON & TAN BRICK, STRUCTURAL TILE (UNGLAZED):

1 part Lime-Solv to 6 parts water.

SANDSTONE, OHIO BLUESTONE & OTHER POROUS STONES:

1 part Lime-Solv to 8 parts water.

METALLIC STAINS/DISCOLORATIONS:

Many of today's new colored bricks may contain metallic oxides, which cause green and brown stains, as they move to the face of bricks. Where substantial quantities exist in brick or these metallic oxides, incorrect dilution of 200 Lime-Solv, in

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part may cause an occurrence of oxide staining. If metallic stains are present prior to testing or appear after, **do not use 200 Lime-Solv, rather USE 202V VANA-STOP™.**

6. PREPARATORY WORK

When product is to be used on an occupied building, the following steps should be taken to protect building occupants from fumes:

Close all windows and cover air intake and exterior air-conditioning vents. Also shut down air handling equipment during application and for 30 minutes following.

It is highly recommended to complete all masonry cleaning prior to installation of non-masonry items that would be adversely affected by the 200 Lime-Solv. Some of these would be doors, windows, light fixtures, hardware, etc. If they are already in place, extreme care and thorough protective covering and adequate ventilation should be used to prevent damage from contact and fumes.

All sealant and caulking materials must be in place and cured, per manufacturer's specifications, prior to commencement of the cleaning process. Employ all necessary precautions and covering to prevent unnecessary damage to the building being cleaned as well as surrounding buildings, vegetation, landscaping, electrical, anodized aluminum, asphalt roofing, cars and all other adjacent items with plastic coverings and water-soaking. Avoid drift and/or over-spray as it may injure passersby or damage vehicles. Divert traffic. Will not damage regular glass.

**KEEP OUT OF THE REACH OF
CHILDREN AND ANIMALS.**

7. SAFETY

All Workers must be protected by complete body coverage with long sleeve rubber or polyethylene suits, rubber boots and gloves, face shield, safety glasses and protective headgear. Avoid contact with eyes and skin. Use with adequate ventilation. If used in confined area the use of respirator with the appropriate filter may be required.

If surfaces are to be thoroughly presoaked with water to prevent absorption of the 200 Lime-Solv into the pores of the masonry, it is recommended to place a lawn soaker hose along the top of the wall to ensure a complete and uniform pre-soaking of the area to be cleaned. A second hose shall be used to provide a flow of water to insure a thorough flushing from the cleaned area of the excess

mortar and dirt. If the structure is a multi-story building a lawn soaker hose should be fitted to the face of the scaffold/stage to ensure a continuous wetting of the areas below that which is being worked on. The most effective and satisfactory cleaning and results can be expected if commencement of cleaning occurs within 14 to 28 days of masonry installation. Mortar and grout residue/smears allowed to remain on the surface beyond this time frame will be difficult to clean off and with less than desirable results.

8. APPLICATION:

Exterior Surfaces: Test patches must be accomplished prior to full scale cleaning.

1. Pre-soak a large area thoroughly with water.
2. Application of properly diluted 200 Lime-Solv can be by either a dense, soft masonry brush or low pressure (40 - 50 psi) airless sprayer of a corrosive/acid resistant type such as DIEDRICH TECHNOLOGIES ACID EXPRESS PUMP. Apply diluted 200 Lime-Solv freely to ensure complete coverage.
3. Dwell time on the wall surface should be about five minutes. Allowing the cleaner to dry on the surface may result in stains and residue.
4. To remove heavy buildup of excess mortar or grout, reapply the 200 Lime-Solv solution and use a wooden scraper or piece of brick to scrape off the excess, using care not to damage the surface of the masonry.

NEVER APPLY DIEDRICH 200, 202 OR 202V VANA-STOP WITH SPRAY EQUIPMENT GENERATING MORE THAN 50 PSI. EXCESSIVE PRESSURE WILL CAUSE THE CHEMICAL TO BE DRIVEN DEEPLY INTO THE SUBSTRATE. COMPLETE RINSE REMOVAL WILL PROVE DIFFICULT.

Note: Lower areas of a wall being cleaned must be kept wet and rinsed of cleaning residue to prevent a streaked appearance. ALSO: the cleaner must be thoroughly rinsed off the masonry before it begins to dry onto the masonry. If the masonry is not adequately prewet before the cleaner is applied and/or if the rinse is hurried and not completely thorough a "white scum" film residue will appear when dry and may be very difficult to remove. **Refer to Diedrich 930 White Scum Remover specifications.**

Interior Surfaces: Follow all test and preparation procedures applicable to exterior work, ie. Test patches,

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pre-wetting, protective coverings. Interior new masonry construction cleaning projects should be completed before finished flooring, trim work, any type of metal fixtures or any other non-masonry material are put in place. If said materials have already been installed, take all necessary precautions to prevent damage from contact with the solution and its fumes by covering with polyethylene sheets and supplying ventilation adequate to prevent accumulation of fumes in concentrations that could cause damage. Clean following procedures for exterior cleaning. In lieu of rinsing with a hose or pressure washer, a sponge or soft bristled brush can be used to apply the fresh water necessary to thoroughly rinse the cleaning solution. If job conditions dictate limited water-use below that required for a thorough rinse, the following steps should be taken.

1. Rinse with as much fresh water as is permitted.
2. Mix a neutralization rinse of 1 gallon fresh water and 2 oz. of household ammonia.
3. Apply the neutralizing solution liberally to the saturation point. Allow to dwell for approximately 5 minutes.
4. Rinse thoroughly with fresh water.

Efflorescence: A Simple Solution – Efflorescence is a deposit of white powdery soluble salts that sometimes appears on the surface of masonry or concrete construction. Often efflorescence is apparent just after the structure is completed, when the builder, architect and owner are most concerned with the appearance of the new structure. The most common salts that contaminate masonry are sulfates, chlorides, nitrates and phosphates, which are associated with acid rain and air pollution

A combination of circumstances cause this crystalline deposit. First, there must be a source of water soluble salts in the masonry. Second, moisture must be present to pick up the soluble salts and transfer them to the surface. Third, some force, evaporation or hydrostatic pressure, will cause the solution to migrate. The force of this crystallization, like a disease, can cause the masonry to disintegrate and spall. *If any one of these conditions is eliminated, efflorescence should not occur.*

In most cases, salts that cause efflorescence come from construction materials, masonry units, or mortar. The best analogy is to call it a masonry infection that possibly requires 2 to 3 treatments of Diedrich detergents over a period of a month to neutralize and eliminate this powdered surface (like antibodies for infections). Moisture may also

enter a masonry wall due to vapor from the interior of a building and accumulate within the wall as it condenses, or rainwater may enter the masonry during construction. Proper protection can alleviate this problem. Common sources of excessive moisture entry are water related: rain, roof drainage, leaky gutters and downspouts, missing or eroded mortar, soft porous or deteriorated masonry, window sills, failure to protect new masonry walls, etc. Efflorescence is a normal construction phenomenon called new or old "BUILDING BLOOM".

Once the building is waterproofed, we can expect a certain amount of efflorescence caused by residual construction moisture. Post World War II brick, containing vanadium and manganese, could leach out as yellow/green or brown stains, so use **Diedrich 202V Vana-Stop only on these bricks.**

Efflorescence Removal: Dilute 1 part 200 Lime-Solv with 5 to 10 parts or more of water. Allow solution to dwell for approximately 10 minutes followed by a low pressure trickle-like water fog/mist rinse from a garden hose.

Do not use high pressure washer or a beaded garden hose spray because great amounts of pounding water will activate more efflorescence to the surface.

NOTE: INSPECT FOR AND CORRECT WATER ENTRANCE PROBLEMS AT DETERIORATED MASONRY AND MORTAR JOINTS, FLASHINGS, EAVES, GUTTERS, DOWNSPOUTS AND ANY OTHER DRAINAGE PROBLEMS PRIOR TO REMOVING EFFLORESCENCE. These problem areas should be corrected before 200 Lime-Solv application and removal. If efflorescence reappears, it tells you there is a leak or moisture movement in the building. When the problem is found and repaired, the cause of the efflorescence is usually eliminated.

ONCE THE DIEDRICH CLEANER TREATMENTS HAVE NEUTRALIZED THE MASONRY, THE SURFACE MUST BE SEALED TO PREVENT MOISTURE INTRUSION THAT CAN INCUR FURTHER FORMATION OF THE SALT DEPOSITS. DIEDRICH WATER REPELLENTS ARE DESIGNED TO PREVENT THE FORMATION OF EFFLORESCENCE. ALLOW MASONRY TO DRY SUFFICIENTLY — 3-5 DAYS DEPENDING ON WEATHER CONDITIONS AND APPLY DIEDRICH 300C, 303-SILOXSEAL, OR 333-OMEGASEAL.

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9. ALTERNATIVE USES

Diedrich 200 Lime-Solv was developed for cleaning new masonry, the unique formulation allows this product to be used in many other applications where muriatic acid before would be used, but now is prohibited by all brick manufacturers. This New Masonry Detergent will do exceptional jobs for:

1. Removal of form oils and membrane compounds from concrete surfaces.
2. Remove paper fiber form stains embedded in concrete.
3. Remove plaster stains and residue from concrete surfaces.
4. Clean precast and exposed aggregate panels in house and on job sites.
5. Remove algae and water deposits from swimming pools.
6. Remove calcium and water deposits from swimming pool filters.
7. Etching concrete surfaces.

Before using 200 Lime-Solv in any of the above applications, thorough testing must be accomplished prior to full scale use. This must be done to assure the desired results are achieved without detrimental effects to the surface it is to be used on.

10. OTHER INFORMATION

Availability: Available through a network of 2000 distributors and over 2100 experienced contractors located throughout the United States, Canada, Mexico, South America, and Europe.

Maintenance: Surfaces cleaned by Diedrich products require no maintenance. For safety and to avoid contamination of the product chemical containers should be tightly sealed while in storage.

ENVIRONMENTAL PROTECTION SYSTEM:

USE DIEDRICH NEUTRA-SOAK "A" FOR ACID, WHICH IS A DRY ABSORBENT COMPOUND FOR SPILLAGE AND TO DIKE/CONTAIN AND COLLECT WASH-OFF RESIDUE FOR SAFER DISPOSAL AND TO ADDRESS LOCAL ENVIRONMENTAL REQUIREMENTS.

WARRANTY: ALWAYS USE A TEST SAMPLE TO DETERMINE DESIRED RESULTS. PRODUCT FREEZES BELOW 32°F, AND MAY BE ADVERSELY AFFECTED BY COLD WEATHER.

DIEDRICH TECHNOLOGIES, INC., warrants that the product will conform to the description and specifications set forth on the product label and will be free from defects in material and workmanship. The exclusive remedy of the Buyer in the event that the product does not so conform shall be the replacement of the product. This warranty is expressly made in lieu of any and all other warranties expressed or implied, including the warranties of merchantability and fitness, and Diedrich Technologies, Inc., shall not be liable for any loss or damage, directly or indirectly, arising from the use of such merchandise or for consequential or incidental damages. While Diedrich Technologies Inc. believes that the data contained herein is accurate and the information is based on test and data believed to be reliable, it is the user's responsibility to determine the safety, toxicity and suitability for his own use of the product described herein. Manufacturer shall not be responsible for any contamination, or related testing or removal costs resulting from use of this lead-free product on any material containing lead or other toxic or environmentally hazardous substances. Since the actual use, by others, is beyond our control, no guarantee, expressed or implied is made by Diedrich Technologies Inc., as to the effects of such use, the results to be obtained, or the safety and toxicity of the product referred to herein. Nor is the information herein to be construed as absolutely complete since additional information may be necessary or desirable when particular conditions or circumstances exist or because of applicable laws or governmental regulations. All claims of any kind against manufacturer arising from or related to this product in any way shall be decided by binding arbitration in accordance with the Construction Industry Arbitration rules of the American Arbitration Association. **Copyright © 2015**

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