

The Original
Color Chips

FLOOR COATING SYSTEMS



CUSTOM EPOXY FLOORS!
DO IT YOURSELF KITS

PRIMER **BASECOAT** **CHIPS** **CLEARCOAT**
1 **2** **3** **4**

THE ORIGINAL COLOR CHIPS SYSTEM 1 WATERBORNE FLOOR COATING KIT IS DESIGNED FOR BASEMENTS AND INTERIORS. THIS KIT IS DESIGNED FOR SUPERIOR CONCRETE ADHESION AND CHEMICAL RESISTANCE FOR YOUR BASEMENT OR INTERIOR APPLICATION!

The Original
Color Chips
SYSTEM 1
WATERBORNE



SYSTEM 1 INCLUDES:

*Etch N' Clean Concrete Profiler
Norklad Preprime WB Primercoat
Norklad WB Colored Basecoat
Decorative Color Chip Flakes
WBC-510 Clear Topcoat*

INSTALLATION INSTRUCTIONS & PRODUCT DATA SHEETS

ORIGINAL COLOR CHIPS • 26200 GROESBECK HWY • WARREN, MI 48089
586-771-6500 • FAX: 586-771-6501 WWW.ORIGINALCOLORCHIPS.COM



SURFACE PREPARATION - PATCHING & GRINDING

PATCHING: Patching pits and divots (*optional*) is the first step of the process. Remove loose aggregate and repair voids. Fill pits and puck marks by using a patching compound or concrete patch with sand to achieve a thick 'peanut butter' thickness to trowel into the voids. Wait 24 hours for compound to fully cure before acid-etching or grinding.

Example: Patching cracks, pits & divots



Example: Filling expansion joints



Optional: Use a self-leveling sealant to caulk into the expansion joints to make a clean line. It is recommended to only partially fill the "saw cuts" as this will allow the concrete to expand and contract as necessary. *Note: When using sealant for expansion joints, wait one week before coating.*

Example: Applying Etch N' Clean



of the concrete with a stiff bristle broom. The acid should only have contact with the concrete for a maximum of 10 minutes. Triple rinse thoroughly with water (*power washing is ideal*) and **allow to dry a minimum of 8-10 hours**. Remove loose aggregate by sweeping.

Example: Grinding concrete surface



SURFACE PREPARATION:

Concrete Surfaces: All surfaces must be sound, dry, clean and free of oil, grease, dirt, mildew, form release agents, curing compounds, loose and flaking paint and other foreign substances prior to applying your primer coat. Remove laitance and roughen unusually slick poured or precast concrete as well any oil, grease, and dirt by utilizing muriatic acid, phosphoric acid, or by grinding the concrete rough. The Original Color Chips Etch 'n Clean solution is a phosphoric acid that has the ability to provide both the cleaning and the profiling (*roughening of the surface*) in one operation, but since it is a better cleaner than an etcher it is recommended to grind the concrete or use muriatic acid on steel-trowelled (*very smooth*) concrete floors. Etching the concrete allows the base coat to adhere securely. Pour onto surface and scrub into the pores

Previously Painted Surfaces: The waterborne components of this product generally allow use over most old coatings. Old coatings should be tested for lifting. If lifting occurs, remove the lifted coating chemically or mechanically (*grinding*). If the coating is not lifting simply scuff / sand entire area to remove gloss and roughen. Clean with TSP or rub with Xylol and allow to dry (*the primer and etch n' clean is not necessary on previously painted coatings*).



PRIMERCOAT - PREPRIME WB INSTRUCTIONS

PRIMING: The reason for a primer application is so that one coat can sink deep into the substrate so the second coating can lay on top providing uniform coverage and sheen. *Note: PrePrime WB can be substituted with one coat of Norklad WB as a primercoat.*

Mixing The Primer: Slowly add converter to Pigment (Component A). Stir until thoroughly mixed. Stir again before using. **Mixed life at 60°-80°F (16°-27°C) is eight hours.** Higher or lower temperatures will vary the mixed life. Apply at around 250-275 sq. ft./gal. Actual coverage may vary depending on substrate and application method. Use clean short nap roller (3/8" - new rollers must be free of loose fibers). Brushing is best reserved for edging and areas of "cutting in".

Primercoat: Use PrePrime WB or Norklad WB



Example: Mix part A & B together in a separate pail



Applying Subsequent Coats: You must be sure that all of the water has evaporated from the previous coat before applying your next coat (usually sometime after 8 hours). However, it is best to test the coating before recoating or topcoating. This can be done by pressing on the coating with your thumb to verify that no fingerprint impression is left. If no impression is created, then the recoat or topcoat can be started.

Example: Cutting-in & rolling out PrePrime WB



Example: Applied and dry PrePrime WB Primercoat





BASECOAT - NORKLAD WB INSTRUCTIONS

BASECOAT APPLICATION: MIXING: This product comes pre-packaged by weight. Kits should be mixed in their entirety. If partial kits are to be used, refer the technical data sheet for proper weight mix ratios. After the two parts are combined, mix well with slow speed mixing equipment such as a jiffy mixer until the material is thoroughly mixed and streak free. This product is an emulsion product and should be mixed well before using.

Example: Norklad WB epoxy kit



TIP: Slowly add Basecoat Part B to Basecoat Part A (use appropriate mix ratios for product). Stir thoroughly and scrape sides of can to ensure thorough blending. Always re-stir before use. Mixed material is usable for four to six hours.

Example: Mix part A & B together in a separate pail



Example: Thoroughly mix combined parts A & B



Coverage: 220-250 sq/ft per gallon or 5.0-7.0 mils wet (2.0-3.0 mils dry) on smooth surfaces. **Dry Time:** Application temperature range is 60°-95°F. At 77°F (25°C) dries to touch in two hours and to recoat overnight (or 16 hours). (see "applying subsequent coats" guidelines) **Note:** Do not apply over wet surfaces or under very humid conditions where condensation or fog could settle on the coating during the cure process. Do not apply when surface or air temperature is below 50°F (10°C).



APPLYING THE BASECOAT/CHIPS: Once the epoxy is thoroughly mixed, it can be applied by brush, roller or spray. For roller application, use a clean medium nap (3/8") synthetic roller (new rollers must be free of loose fibers). Start painting in the corner furthest away from the exit of the room. Use a brush to cut in along the walls and edges. Pour from the bucket onto the floor in thin ribbons then roll the material out using a roller.

Example: Cutting-in Norklad WB basecoat



Example: Roller applying Norklad WB Basecoat



After painting approximately 6 feet from the starting point you should begin to apply the chips. Chips are applied by tossing them upward toward the ceiling allowing them to float down into the wet basecoat. *(We recommend dispersing the chips in a "feeding the chickens" style toss; using only three fingers to take a pinchful of chips at a time and launching them into the air at an upward angle, allowing the chips to float down into the wet coating).* **Note:** Multiple colors of chips should be mixed together in a separate container prior to beginning the application.

Example: Use a small pinch of color chips



Example: Release and let chips float down onto the epoxy



It will take at least an hour for the material to start to tack up so you have plenty of time to broadcast your chips evenly. If you broadcast too much in one area, you have to match the entire floor to that spot so take your time and do a little at a time. Continue painting approximately 6 foot wide sections and tossing chips until entire floor is complete. Since everyone's idea of medium and heavy chip coverage can be different, it's important to make sure you don't run out of chips before the end of your job. It's best to apply less chips onto the floor than what you generally want, that way you when you reach the end of your floor you can apply what chips have left and give the floor a much more dense appearance. Another tool to assist in achieving uniform chip coverage is spike shoes. Wearing spike shoes will grant you the ability to walk ovetop the wet epoxy. By walking across the wet epoxy as you roll it out you can paint large areas and go back, or walk over to areas not completely covered and sprinkle more chips to make a more uniform appearance. **Note:** Be careful not to drop chips in handfuls directly down onto floor, once chips are placed they cannot be moved, but they can be painted over and re-chipped if you make a mistake.



CLEARCOAT - WBC-510 INSTRUCTIONS

TOPCOAT APPLICATION: Once you're ready to apply the waterborne epoxy clearcoat (waiting overnight for the basecoat to efficiently cure), mix Part A and Part B together (equals .75 gal). Refer to the basecoat mixing and application instructions for the Topcoat. It will be the same procedures.

WBC-510 topcoat kit



Mixing

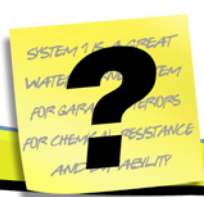


Applying



Be sure to roll one even coat of clear topcoat over the entire surface to be coated (*we recommend a good 3/8" nap roller*). Material will go on as a milky white (*may even look like white paint*) and dry crystal clear. Smooth out any visible clumps of clear coat. ***If you come to the end of your floor and you still have clear coat left over do not use the mixed material to add thickness to the layer you just put down. Discard unused material (if mixed).*** Applying clearcoat overtop of itself without waiting for the first layer to cure will cause curing problems. If you do decide to double coat the clear top coat, please allow a minimum of 14 hours for the first layer to cure before attempting a second coat. (*heavy or full broadcasts of chips often calls for a double layer of clear coat, though the more chips you use the more skid resistance you give your floor*)

Dry Time: Dries to light foot traffic on concrete floors in 24-48 hours. You can move heavy items on it in 36-48 hours. Full cure for vehicle traffic in five to seven days. Low temperature, high humidity, thick films or poor ventilation will increase these times. Lack of ventilation and/or the use of portable fuel burning heaters that produce exhaust gases during application and initial stages of curing may cause yellowing to occur. ***Clean-up:*** Clean immediately after use with warm, soapy water. Rinse pumps and hoses with xylene after cleaning.



SYSTEM 1- NOTES/FAQS: This system can be completed in 2 or 3 days after the prep work has been completed. We usually recommend a three day process after the preparation is complete:

Day 1: Apply the Preprime WB primer. (*Note: Preprime WB can be substituted with one coat of Norklad WB as a primercoat.*)

Day 2: Apply Norklad WB and broadcast chips.

Day 3: Roll on your clear top coat.

Day 4: You can walk on the floor.

Day 5-6: Move heavy items on the floor.

Day 7: Car traffic.

Essential Tools of the Trade: 3/8" nap rollers (1 for the primer, 1 for the clearcoat, 1 for the basecoat), 3" brush (for edging), spike shoes, buckets, etc.

Clean-Up: Clean up primer, basecoat and clearcoat with soap and water.

Helpful Hints: *Be sure to have enough chips to do entire surface (1 lb per 250 square feet for Light sprinkle, 2 lbs per 250 square feet for medium sprinkle, etc). *Using spike shoes to apply chips helps achieve uniform coverage. *When applying topcoat walk on previously applied chip/basecoat with clean shoes or socks only, any dirt or debris tracked on to chip/ basecoat will be sealed in by application of clear topcoat.

Prior to painting your floor: **PERFORM A MOISTURE TEST.** If you sometimes see tiny crystals or white powder on your floor, or the concrete feels damp, this is moisture migrating through the slab which will often cause peel up of any kind of coating you apply. To perform a moisture test, simply put a rubber mat on the floor or tape down a 3 by 3 ft (or so) sheet of plastic. Wait overnight. If water collects between it and the floor there is a potential moisture problem and any floor paint will probably not cure/dry properly or will bubble up and peel away. If the moisture is mild, you can primer the substrate before applying your basecoat to make sure you won't have adhesion issues. If the moisture is severe, it is not recommended to apply a coating.

PERFORM THE SEALER TEST If your concrete has been treated with some sort of cement sealer (waterproof) no epoxy will stick to it. To perform a sealer test you'll want to pour water on the cement. It should soak into the cement in a reasonable time. If it beads up or just sits there for a long time, the concrete has been sealed or could be grease-or-oil contaminated. The Etch N' Clean solution *not* muriatic acid will be able to cut through a sealer. The floor must be grinded or shot blasted to cut through the sealer to allow proper adhesion.

ETCHING IS A CRITICAL PART OF THE PROCESS

Concrete floors require preparation before applying an epoxy coating system. The preparation usually involves cleaning the surface to remove oil and other unwanted contaminants **and** "profiling" the concrete by etching with acid *or* by mechanical abrasion (ie; shot-blasting or etching with a diamond grinder). If the concrete is new or does not have heavy oil contamination **it still needs to be etched.** The rougher the better. Thin build systems (waterborne epoxy) are best prepped by using an acid etching or diamond grinding.

The key here is to open up the pores of the concrete so the epoxy has something to sink into. The Original Color Chips Floor Coating System **Etch 'n Clean** will provide both the cleaning and the profiling in one operation. If the concrete is profiled to resemble 100 grit sandpaper or more coarse you are ready to coat. If the concrete is trowelled to a glass-like finish you may have to etch multiple times to get the surface to the right texture. In the case where you will need to etch the concrete again, Muriatic Acid is a more aggressive acid that should be considered. Though much less user-friendly than our etch n' clean (note: it does not have a cleaning agent so we advise using the Etch 'n' Clean prior to Muriatic Acid). If you need to use the Muriatic Acid; use with caution. Follow the tutorial at our website: http://www.originalcolorchips.com/images/muriatic_acid_instructions.pdf.

REMEMBER: No matter how new OR clean the concrete is, it will need a rough textured surface in order to achieve maximum epoxy adhesion. Each gallon of Etch N Clean has to be diluted with 50% Water for proper cleaning on the concrete substrate.

ETCHING USING THE ORIGINAL COLOR CHIPS ETCH 'N CLEAN

Equipment

- Plastic sprinkling can or plastic garden sprayer
- Push broom with stiff bristles (natural or synthetic)
- Water for rinsing (hose with high pressure)

Optional Equipment

- Long-handled squeegee
- Wet-dry Vacuum

Usage Tips

- Work in 10'x10' sections. Working in larger sections may prevent rinsing before the solution begins to dry resulting in white powdery residue.
- If available, use the squeegee or wet-dry vac to remove the etching solution before rinsing.
- Do not apply the solution with a mop. Mopping smears the solution over the surface and does not apply enough solution uniformly for effective etching.
- We recommend using a stiff bristle broom and scrubbing the pores of the concrete as you pour out the solution.

Method

1. Dampen a 10'x10' section. A little water on the surface helps activate the etching solution.
2. Dilute 1 gallon of water to 1 gallon of solution. Apply the Etch 'n Clean solution so that a uniform film covers the section to be treated. (*your 2-gallon mixture should cover around 500 sq/ft*)
3. Allow 5 minutes contact time.
4. Using a stiff-bristled push broom, scrub the solution into the floor working in one direction and then scrub across the surface at 90° to the first direction.
5. Allow the solution to remain on the surface for an additional 2-5 minutes. (*Do not apply the etch 'n clean on an area larger than you can rinse off in 10 minutes, it is advisable to work in small areas at a time*)
6. Saturate the surface with water to neutralize the acid. If available, use a squeegee to remove the etching solution before rinsing. Otherwise, rinse using plenty of water. Scrub the surface while rinsing to insure complete removal of the etching solution. If you have a pressure washer use it to thoroughly rinse the surface.
7. Move to an adjacent area and repeat the process.

Troubleshooting

1. A white haze, white streaks or white, powdery dust on the surface after drying is caused by waiting too long before rinsing or by inadequate rinsing. The white powder is a combination of cement particles released from the surface and a precipitate byproduct of the etching reaction, insoluble calcium phosphate. Remove as much as possible by sweeping, scraping or vacuuming. A light dusting typically will not show through a clear coating and will not affect adhesion.
2. Look for areas on the treated surface that are darker or shinier than the rest of the treated surface. Water beading or breaking on these areas signal that the surface is not ready for the coating application and should be treated again.
3. If water soaks into the treated surface without beading or breaking and the surface has the degree of profile specified by the coating manufacturer, the surface is ready for the coating application.
4. Neutralizing the surface after etching is not required because Etch 'n Clean is self-neutralizing. Once the bubbling stops, the remaining mildly acidic solution is easily removed by thorough rinsing.



ETCH 'N CLEAN SOLUTION

The Original Color Chips Company
26200 GROESBECK HWY
WARREN, MI 48089 USA

Product Data Sheet

- Substrates**
- Concrete - Tilt up, poured, precast
 - Masonry - Stucco, cinderblock, cement board
 - Brick - Glazed, unglazed

- Removes**
- Form Release Compound
 - Oil, Grease, Dirt, Soot
 - Efflorescence & Laitance
 - Fabricating Oils, Lubricants
 - Coolants and Rust Inhibitors
 - Passivation Films

Product Description

Etch 'n Clean is a concentrated, water-reducible phosphoric acid and detergent blend formulated to both clean and prepare concrete, masonry, steel, galvanized and zinc surfaces for coating, staining and sealing. Etch 'n Clean reduces preparation time and cuts labor costs by eliminating the separate pre-cleaning and rinsing operation before etching

General Uses

Etch 'n Clean is ideal for cleaning and etching concrete floors, walls, basements, driveways, swimming pools and containmen areas before coating, staining, or sealing.

Application (Read precautions before using)

Etch 'n Clean can be applied with an acid-resistant, hand-pump sprayer, a plastic sprinkling can, or with a plastic pail and an acid-resistant broom or brush.

For best results:

- 1) Use product full strength.
- 2) If available, hot water will accelerate cleaning and etching.
- 3) Sweep lose debris and dampen the surface with water.
- 4) Apply solution and scrub with a stiff brush or broom until bubbling stops. **NOTE: if no bubbling occurs, surface is coated with curing compounds or contaminants preventing etching. Remove contamination and reapply Etch 'n Clean.**
- 5) Triple rinse with water to neutralize. On floors, squeegee off rinse water to speed drying. Adding baking soda will neutralize too.
- 6) Allow the surface to dry thoroughly.

- Features**
- Cleans & Etches in one step
 - No Acidic Vapors
 - Saves Time & Labor
 - Neutralizes Alkali Salts
 - Cleans & Phosphates
 - Improves Corrosion Resistance
 - Enhances Coating Adhesion

Trouble Shooting Guide

White Powder appearing on the surface after drying indicates that the solution is too strong and/or the contact time is too long. Remove white powder before coating by wiping with a clean, dry cloth. To correct reduce solution concentration and/or reduce spray contact time.

Safety & Health Data

Etch 'n Clean is non-flammable, non-carcinogenic, and contains no petroleum or chlorinated solvents

Research

Etch 'n Clean has been accepted with an A-3 category designation as a general cleaning agent on all surfaces or for use with steam or mechanical cleaning devices in all departments of USDA inspected facilities.

Availability

Etch 'n Clean is available where ever The Original Color Chips are sold.

Technical Services

Technical advice furnished by The Original Color Chip Company concerning any use or application of Etch 'n Clean is reliable as current technology allows and the company makes no warranty, expressed or implied of any use or application for which such advice is furnished. Technical assistance and information is available upon request by writing or calling The Original Color Chip Company at 586-771-6500.



ETCH 'N CLEAN SOLUTION

The Original Color Chips Company

26200 GROESBECK HWY
WARREN, MI 48089 USA

Material Safety Data Sheet

Section 1 - General Information

Manufactured by: Great Lakes Laboratories
Address: 26200 Groesbeck Hwy
Warren, MI 48089

24 Hour Emergency: 1-800-888-1105
Office: 1-734-525-8300

Container over 5 liters: Phosphoric Acid Solution
8, UN1805, PG III

Container under 5 liters: Consumer Commodity
ORM-D

HMIS	Rating
Health:	3
Fire:	0
Reactivity:	1
Other:	0

Section 2 - Hazardous Ingredients

Hazardous Material Description: Phosphoric Acid
Class, ID NO.: Corrosive, UN1805
Chemical Name: Phosphoric Acid
CAS #: 7664-38-2
% Weight: 40% - 60%
Carcinogen: OSHA - No
ACGIH - No

Section 3 - Physical Characteristics

Boiling Point: 212°F
Vapor Pressure (mm Hg): N/A
Vapor Density (Air = 1): N/A
Specific Gravity (H₂O=1): 1.24
pH: 1.0
Evaporation Rate:
(butyl acetate = 1) Equal to Water
Solubility in Water: Complete
Appearance: Orange Liquid
Odor: None

Section 4 - Health Hazard Data

Exposure Limits:
Threshold Limit Value: 1 mg/cu. m (ACGIH)
PEL: 1 mg/cu. m (OSHA)
STEL: 3 mg/cu. m (OSHA)
Effects of Acute: Phosphoric Acid has low
Overexposure: acute oral and moderate
dermal toxicity. Phosphoric
Acid is corrosive to eyes.
Slightly toxic if inhaled.

Section 4 - Continued

Emergency and First Aid Procedures:

Swallowing: Do not induce vomiting. Drink plenty of water. See physician immediately.

Skin: Immediately wash with soap and water. If irritation occurs and persists, see a physician.

Eyes: Flush with water for at least 15 minutes, lifting upper and lower eyelids repeatedly. See ophthalmologist.

Inhalation: Remove to fresh air. If breathing difficulty or discomfort occurs, see a physician.

Section 5 - Fire and Explosion

Flash Point: None

Extinguishing Media: N/A

Special Fire Fighting Procedures: Full protective clothing and self-contained breathing apparatus.

Unusual Fire and Explosion Hazards: At flame temperatures, will emit toxic phosphorus oxide fumes.

Section 6 - Reactivity

Stability: Stable conditions to avoid - Contact with strong alkaline materials and reactive metals.

Incompatibility: Contact with reactive metals may produce flammable hydrogen/air mixtures. Reacts violently with strong bases.

Hazardous Decomposition/By Products: At flame temperatures, will emit toxic phosphorus oxide fumes.

Section 7 - Control Measures

Respiratory Protection: Wear mask to prevent inhalation.
Ventilation: Keep concentration below TLV level.
Protective Gloves: Impervious rubber or plastic.
Eye Protection: Chemical safety goggles.
Protective Clothing: Hat, boots and jacket may be needed in heavy mist or spill situation.

Section 8 - Spill/Leak Procedures

In Case of Spill: Stop leak. Dike and absorb with inert absorbent. Neutralize washings with soda ash or lime.
Waste Disposal Method: In accordance with regulations.

CERCLA Reportable Qty.: 5,000 lbs

RCRA Hazard Waste #: N/A

VOC: None

Section 9 - Precautions for Safety Handling

Handling/Storage: Store in a cool, dry place
Keep container closed.
Other Precautions: Keep out of reach of children.
Keep from freezing.

The information contained herein is based on the data available to us and is believed to be correct. However, we make no warranty, expressed or implied, regarding the accuracy of this data or the results to be obtained from the use thereof. We assume no responsibility for the injury from use of the product described herein.

MATERIAL SAFETY DATA SHEET

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Etch N' Clean
GENERAL USE: Cleaning agent
PRODUCT DESCRIPTION: Orange corrosive liquid, characteristic odor

Page 1 of 4

MANUFACTURER'S NAME
Original Color Chips Co / Great Lakes Laboratories

DATE PREPARED: April 9, 2007
SUPERSEDES: January 1, 2007

ADDRESS (NUMBER, STREET, P.O. BOX)
26200 Groesbeck Hwy

TELEPHONE NUMBER FOR INFORMATION
(800) 888-1105

(CITY, STATE AND ZIP CODE)
Warren, MI 48089

COUNTRY
USA

EMERGENCY TELEPHONE NUMBER
(734) 718-5744

DISTRIBUTOR'S NAME
Original Color Chips Co

ADDRESS (NUMBER, STREET, P.O. BOX)

TELEPHONE NUMBER FOR INFORMATION

(CITY, STATE AND ZIP CODE)

COUNTRY

EMERGENCY TELEPHONE NUMBER

SECTION 2 - HAZARDOUS INGREDIENTS

HAZARDOUS COMPONENTS	CAS #	% (by weight)	OSHA PEL		ACGIH TWA		SARA TITLE III	RQ LBS
			PPM	MG/M3	PPM	MG/M3		
Phosphoric acid (a)	7664-38-2	30 - 60		1		1		5000

(a) See Section 15

SECTION 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Corrosive liquid. Causes chemical burns to skin and eyes. Hazard Symbols for this product: C Risk Phrases - R22, 34

POTENTIAL HEALTH EFFECTS

INHALATION: Corrosive and irritating to upper respiratory tract. May be harmful if inhaled.

SKIN: Corrosive and irritating; chemical burns may result from contact.

EYES: Corrosive; Causes immediate severe irritation of the eye and eyelids. If not quickly removed by thorough irrigation with water, there may be prolonged or permanent visual impairment or total loss of sight.

INGESTION: Corrosive. Material is extremely destructive to all tissues. May be harmful or fatal if swallowed.

CARCINOGENICITY

NTP?

No

IARC MONOGRAPHS?

No

OSHA REGULATED?

No

MATERIAL SAFETY DATA SHEETPRODUCT NAME: Etch n' Clean
April 9, 2007

Page 2 of 4

SECTION 4 - FIRST AID MEASURES

INHALATION: Remove affected person to fresh air; if breathing has not returned to normal within a few minutes after exposure, get medical attention.

SKIN: Remove contaminated clothing; wash affected area with soap and water; launder contaminated clothing before reuse; if irritation persists, seek medical attention.

EYES: Check for and remove contact lenses. Immediately flush eyes for 15 minutes in clear running water while holding eyelids open; seek medical attention immediately.

INGESTION: Drink two glasses of water followed by milk, milk of magnesia or other non-alcoholic liquids; DO NOT induce vomiting; seek medical attention immediately.

SECTION 5 - FIRE FIGHTING MEASURES**FLASH POINT (METHOD USED)**

Non-flammable

FLAMMABLE LIMITS

LEL: Not applicable

UEL: Not applicable

AUTOIGNITION TEMPERATURE: Not determined**NFPA CLASS:** None

GENERAL HAZARDS: Product is corrosive. Products of combustion include compounds of carbon, hydrogen and oxygen, including carbon monoxide.

EXTINGUISHING MEDIA

Carbon dioxide, water, water fog, dry chemical, chemical foam.

FIRE FIGHTING PROCEDURES

Keep containers cool with water spray to prevent container rupture due to steam buildup; floor will become slippery if material is released.

CAUTION - material is corrosive.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Contact with B:C extinguisher powder may produce large amounts of carbon dioxide.

HAZARDOUS COMBUSTION PRODUCTS

Smoke, fumes or vapors, oxides of carbon, phosphorous

SECTION 6 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: CAUTION - CORROSIVE. Wash small spills to sanitary sewer. Large spills - confine spill, soak up with approved absorbent, shovel product into approved container for disposal. For spills in excess of allowable quantities (RQ) notify the National Response Center (800) 424 - 8802; refer to CERCLA 40 CFR 302 for detailed instructions concerning reporting requirements.

SECTION 7 - HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Keep container closed when not in use; protect containers from abuse; protect from extreme temperatures. Separate from oxidizing materials, metallic powders and other easily oxidized organic materials and reducing agents. CAUTION - material is corrosive. Keep this and other chemicals out of reach of children.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION**ENGINEERING CONTROLS**

The use of local exhaust ventilation is recommended. Use corrosion-resistant ventilation equipment.

PERSONAL PROTECTION:

RESPIRATORY PROTECTION: None required while threshold limits are kept below maximum allowable concentrations; if TWA exceeds limits, NIOSH approved respirator must be worn. Refer to 29 CFR 1910.134 or European Standard EN 149 for complete regulations.

PROTECTIVE GLOVES: Neoprene, butyl or nitrile rubber gloves with cuffs.

EYE PROTECTION: Chemical splash goggles. Refer to 29 CFR 1910.133 or European Standard EN166.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Coveralls, apron, or other equipment should be worn to prevent skin contact, safety eyewash station nearby.

WORK / HYGIENIC PRACTICES: Practice safe workplace habits. Minimize body contact with this, as well as all chemicals in general.

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: Etch N' Clean
April 9, 2007

Page 3 of 4

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

VAPOR PRESSURE 1.0 mm Hg @ 20° C	VAPOR DENSITY (AIR = 1) > 1
SPECIFIC GRAVITY (WATER = 1) 1.25	EVAPORATION RATE (Water = 1) < 1
SOLUBILITY IN WATER Complete	FREEZING POINT Not determined
pH 1.5	APPEARANCE AND ODOR Orange liquid, characteristic odor
BOILING POINT 300° F (149° C)	PHYSICAL STATE Liquid
VISCOSITY Not specified	VOLATILE ORGANIC COMPOUNDS (Total VOC's) None

SECTION 10 - STABILITY AND REACTIVITY

STABILITY UNSTABLE: STABLE: X	CONDITIONS TO AVOID: Extreme temperatures.
INCOMPATIBILITY (MATERIALS TO AVOID): Strong oxidizers, strong acids, strong alkalies.	

HAZARDOUS DECOMPOSITION OR BYPRODUCTS: Decomposition will not occur if handled and stored properly. In case of a fire, oxides of carbon, hydrocarbons, fumes or vapors, and smoke may be produced.

HAZARDOUS POLYMERIZATION MAY OCCUR: WILL NOT OCCUR: X	CONDITIONS TO AVOID: None
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SECTION 11 - TOXICOLOGICAL INFORMATION

Hazardous Ingredients	CAS #	EINECS #	LD50 of Ingredient (Specify Species and Route)	LC50 of Ingredient (Specify Species)
Phosphoric acid (a)	7664-38-2	231-633-2	1530 mg / kg Oral - rat	> 850 mg / m3 Inhalation - rat

SECTION 12 - ECOLOGICAL INFORMATION

No data are available on the adverse effects of this material on the environment. Neither COD nor BOD data are available. Based on the chemical composition of this product it is assumed that the mixture can be treated in an acclimatized biological waste treatment plant system in limited quantities. However, such treatment should be evaluated and approved for each specific biological system. None of the ingredients in this mixture are classified as a Marine Pollutant.

SECTION 13 - DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Dispose of in accordance with local, state, and federal regulations. Refer to 40 CFR 260 - 299 for complete waste disposal regulations for corrosive materials. Consult your local, state, or federal agency before disposing of any chemicals.

SECTION 14 - TRANSPORT INFORMATION

PROPER SHIPPING NAME: Phosphoric acid solution

DOT HAZARD CLASS / Pack Group: 8 / III	IATA HAZARD CLASS / Pack Group: 8 / III
REFERENCE: 49 CFR 173.154, .203, .241	IMDG HAZARD CLASS: 8 / III
UN / NA IDENTIFICATION NUMBER: UN 1805	RID/ADR Dangerous Goods Code: 8
LABEL: CORROSIVE	UN TDG Class / Pack Group: 8 / III
HAZARD SYMBOLS: C	Hazard Identification Number (HIN): 80

PROPER SHIPPING NAME: Consumer Commodity (Less than 5 liters ONLY)

DOT HAZARD CLASS / Pack Group: ORM - D / None	IATA HAZARD CLASS / Pack Group: See Note below
REFERENCE: 49 CFR 173.144-.156	IMDG HAZARD CLASS: See Note below
UN / NA IDENTIFICATION NUMBER: None	RID/ADR Dangerous Goods Code: See Note below
LABEL: None Required	UN TDG Class / Pack Group: See Note below
HAZARD SYMBOLS: None	Hazard Identification Number (HIN): None

Note: CONSUMER COMMODITY ORM - D must be accompanied by orientation arrows

Transportation information provided is for reference only. Client is urged to consult CFR 49 parts 100 - 177, IMDG, IATA, EU, United Nations TDG, and WHMIS (Canada) TDG information manuals for detailed regulations and exceptions covering specific container sizes, packaging materials and methods of shipping.

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: Etch n' Clean
April 9, 2007

Page 4 of 4

SECTION 15 - REGULATORY INFORMATION

TSCA (Toxic Substance Control Act)

All components of this product are listed on the U.S. Toxic Substances Control Act Chemical Inventory (TSCA Inventory) or are exempted from listing because a Low Volume Exemption has been granted in accordance with 40 CFR 723.50.

SARA TITLE III (Superfund Amendments and Reauthorization Act)

311/312 Hazard Categories
Immediate health

313 Reportable Ingredients:

None

CERCLA (Comprehensive Response Compensation and Liability Act)

(a) The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) has notification requirements for releases or spills to the environment of the Reportable Quantity (RQ for this mixture = 10,000 lbs) or greater amounts, according to 40 CFR 302.

California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986

There are no reportable chemicals present known to the state of California to cause cancer or reproductive toxicity.

CPR (Canadian Controlled Products Regulations)

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations. WHMIS Classification: E

IDL (Canadian Ingredient Disclosure List)

Components of this product identified by CAS number and listed on the Canadian Ingredient Disclosure List are shown in Section 2.

DSL / NDSL (Canadian Domestic Substances List / Non-Domestic Substances List)

Components of this product identified by CAS number are listed on the DSL or NDSL, or are otherwise in compliance with the New Substances Notification (NSN) regulations. Only ingredients classified as "hazardous" are listed in Section 2 unless otherwise indicated.

EINECS (European Inventory of Existing Commercial Chemical Substances)

Components of this product identified by CAS numbers are on the European Inventory of Existing Commercial Chemical Substances.

EC Risk Phrases

R22 Harmful if swallowed.
R34 Causes burns.

SYMBOL(S) REQUIRED FOR LABEL



EC 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 whenever possible.)

SECTION 16 - OTHER INFORMATION

Specific toxicity tests have not been conducted on this product. Our hazard evaluation is based on Information from similar products, the ingredients, technical literature, and/or professional experience.

HMIS HAZARD RATINGS

HEALTH	2	* = Chronic Health Hazard	2 = MODERATE
FLAMMABILITY	0	0 = INSIGNIFICANT	3 = HIGH
PHYSICAL HAZARD	0	1 = SLIGHT	4 = EXTREME
PERSONAL PROTECTIVE EQUIPMENT	C	Safety Glasses, Gloves, Apron	

REVISION SUMMARY:

This MSDS has been revised in the following sections: Complete format revision

MSDS Prepared by: Comprehensive Data Base, Inc.
P.O. Box 395
Intercession City, FL 33848 USA
(863) 644 - 3298 www.compdatabase.com or www.msds.cc

The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of need that information is current, applicable and suited to the circumstances of use. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, vendor assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Any questions regarding this product should be directed to the manufacturer of the product as described in Section 1.



NORKLAD

PREPRIME WB

WATERBORNE EPOXY PRIMERCOAT

ORIGINAL COLOR CHIPS CO - 26200 GROESBECK HWY - WARREN, MI

DEEP PENETRATING
CLEAR PRIMER | SEALER

Norklad Preprime WB is a two component water based epoxy coating that provides an excellent primercoat for various flooring systems. Preprime WB is clear in color to work well with any colored topcoat. It is low in solids to provide superior substrate penetration. This product has a tack free time of about 5 to 8 hours. Therefore, if timed correctly, it is possible to apply your primer coat and color coat in the same day. Norklad Preprime WB is recommended for priming or coating concrete, wood or masonry.

SOLIDS BY WEIGHT:

43% (+/- 2%)

SOLIDS BY VOLUME:

40% (+/- 2%)

VOLATILE ORGANIC CONTENT:

1.2 pounds per gallon (mixed)

COLOR:

Amber Clear NOTE: This clear is not water clear and is not suitable for topcoating over previously color coated floors. The clear is suitable as a primer or concrete sealer only.

RECOMMENDED FILM THICKNESS:

5-7 mils per coat wet thickness (yields 2-3.5 mils dry)

COVERAGE PER GALLON

250 square feet @ 5-6 mils wet thickness

PACKAGING

1-gallon kits

MIX RATIO:

6.55# part A (.80 gallons, approximate) to 1.90# part B (.20 gallons, approximate).

SHELF LIFE:

1 year in unopened containers

FINISH CHARACTERISTICS:

Semi-Gloss

ABRASION RESISTANCE:

Taber abrasor CS-17 calibrase wheel with 1000 gram total load and 500 cycles = 45 mg loss

IMPACT RESISTANCE:

Gardner Impact, direct = 50 in. lb. (passed)

FLEXIBILITY:

No cracks on a 1/8" mandrel

ADHESION:

425 psi @ elcometer (concrete failure, no delamination)

VISCOSITY:

400-900 cps (typical)

DOT CLASSIFICATION:

Not regulated

CURE SCHEDULE: (70°F)

pot life – 1 gallon volume	1.0 – 1.5 hours
tack free (dry to touch).....	5-8 hours
recoat or topcoat.....	7-10 hours
light foot traffic.....	16-24 hours
full cure (heavy traffic).....	2-7 days

APPLICATION TEMPERATURE:

55-90 degrees F with relative humidity below 85%

CHEMICAL RESISTANCE:

REAGENT	RATING
acetic acid 5%	B
xylene	B
mek	A
gasoline	B
10% sodium hydroxide	C
10% sulfuric	B
10% hydrochloric acid	B
20% nitric acid	A

Rating key: A - not recommended, B - 2 hour term splash spill, C - 8 hour term splash spill, D - 72 hour immersion, E - long term immersion. NOTE: extensive chemical resistance information is available through your sales representative.

TOPCOAT:

Required – Many products are suitable as topcoats including Norklad WB Waterborne Epoxy, Norklad SB solventborne Epoxy, or Norklad 200 100% Solids Epoxy. For added chemical resistance, color stability, or UV stability, topcoat with a suitable aliphatic urethane such as HPU 747.

LIMITATIONS:

- * Gloss may be affected by humidity, low temperatures, chemical exposure, or sodium vapor lighting.
- * Product will yellow in the presence of UV light.
- * For best results use a 1/4 or 3/8" nap roller.
- * Slab on grade requires moisture barrier.
- * Substrate temperature must be 5°F above dew point
- * All new concrete must be cured for at least 30 days.
- * Improper mixing or too thick of an application may result in product failure.



PRIMERCOAT

APPLICATION INSTRUCTIONS

PRODUCT STORAGE: Store product in an area so as to bring the material to normal room temperature before using. Continuous storage should be between 60 and 90 degree F. Keep from freezing.

SURFACE PREPARATION: Surface preparation will vary according to the type of complete system to be applied. For a one or two coat thin build system (3-10 mils dry) we recommend either mechanical scarification or acid etching until a suitable profile is achieved. All dirt, oil, dust, foreign contaminants and laitance must be removed to assure a trouble free bond to the substrate. A test should be made to determine that the concrete has an appropriate vapor barrier. This can be done by placing a 4' X 4' plastic sheet on the substrate and taping down the edges. If after 24 hours, the substrate is still dry below the plastic sheet, then the substrate does not show signs of eventual hydrostatic pressure problems that may later cause disbonding. However, this product can be applied to a damp floor as long as there are no standing puddles.

PRODUCT MIXING: This product comes pre-packaged by weight. Kits should be mixed in their entirety. If partial kits are to be used, refer to the front of this technical data for proper weight mix ratios. After the two parts are combined, mix well with slow speed mixing equipment such as a jiffy mixer until the material is thoroughly mixed and streak free. This product is an emulsion product and should be mixed well before using. If you choose to mix by hand, it is recommended to mix thoroughly for several minutes.

PRODUCT APPLICATION: The mixed material can be applied by brush or roller. Maintain temperatures within the recommended ranges during the application and curing process. Apply material with relative humidity below 85%. When the end of the pot life has been reached, you will find that the material becomes hard to apply and will actually tend to roll back up onto the roller. Do not try to continue application when the coating has reached this step. Applications made at different times with differing environmental conditions, may show slight variations in gloss. After applying thin coat you may notice blotchiness this is normal as the coating soaks up into the substrate at varying thicknesses.

RECOAT OR TOPCOATING: When topcoating this product, you must first be sure that all of the solvents and water have evaporated from the coating during the curing process. Waiting a minimum of 5 hours is a good guideline. However, it is best to test the coating before your next coat. This can be done by pressing on the coating with your thumb to verify that no fingerprint impression is left. If no impression is created, then the recoat or topcoat can be started. Always remember that colder temperatures will require more cure time for the product before recoating or topcoating can commence. Before topcoating, check the coating to insure no epoxy blushes were developed (a whitish, greasy film or deglossing). If a blush is present, it must be removed prior to topcoating or recoating. A standard type detergent cleaner can be used to remove any blush. Many epoxy overlays and coatings as well as urethanes are compatible for use as a topcoat for this product.

CLEANUP: Use PM solvent or soap and water.

NOTICE TO BUYER: DISCLAIMER OF WARRANTIES AND LIMITATIONS ON OUR LIABILITY

We warrant that our products are manufactured to strict quality assurance specifications and that the information supplied by us is accurate to the best of our knowledge. Such information supplied about our products is not a representation or a warranty. It is supplied on the condition that you shall make your own tests to determine the suitability of our product for your particular purpose. Listed physical properties are typical and should not be construed as specifications. NO WARRANTY IS MADE, EXPRESSED OR IMPLIED, REGARDING SUCH OTHER INFORMATION, THE DATA ON WHICH IT IS BASED, OR THE RESULTS YOU WILL OBTAIN FROM ITS USE. NO WARRANTY IS MADE, EXPRESSED OR IMPLIED, THAT OUR PRODUCT SHALL BE MERCHANTABLE OR THAT OUR PRODUCT SHALL BE FIT FOR ANY PARTICULAR PURPOSE. NO WARRANTY IS MADE THAT THE USE OF SUCH INFORMATION OR OUR PRODUCT WILL NOT INFRINGE UPON ANY PATENT. We shall have no liability for incidental or consequential damages, direct or indirect. Our liability is limited to the net selling price of our product or the replacement of our product, at our option. Acceptance of delivery of our product means that you have accepted the terms of this warranty whether or not purchase orders or other documents state terms that vary from this warranty. No representative is authorized to make any representation or warranty or assume any other liability on our behalf with any sale of our products. Our products contain chemicals that may CAUSE SERIOUS PHYSICAL INJURY. BEFORE USING, READ THE MATERIAL SAFETY DATA SHEET AND FOLLOW ALL PRECAUTIONS TO PREVENT BODILY HARM.

MATERIAL SAFETY DATA SHEET

PRODUCT CODE: PPWB

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Preprime WB PART A
PRODUCT CODES: 015CLEAR A

MANUFACTURER: Norkan Inc.
STREET ADDRESS: 9 Guttman Avenue
CITY, STATE, ZIP: Charleroi, Pa. 15022

INFORMATION PHONE: 724-483-9300
EMERGENCY PHONE: Chemtrec 800-424-9300
FAX PHONE: 724-483-9306

PREPARED BY: Harry Jackson

DATE REVISED: 4/22/05

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

<u>INGREDIENT</u>	<u>CAS NO.</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>OSHA STEL</u>	<u>WEIGHT %</u>
1,2 ETHANE DIAMINE, N-(2-AMINO ETHYL)	111-40-0	1 ppm	1 ppm	NONE	
TETRAETHYLENE PENTAMINE	112-57-2	NONE	NONE	NONE	
ETHYLENEDIAMINE	107-15-3	10 ppm	10 ppm	10 ppm	
PENTAETHYLENE HEXAMINE	4067-16-7	NONE	NONE	NONE	
WATER	7732-18-5	NONE	NONE	NONE	
PROPYLENE GLYCOL MONOMETHYL ETHER	107-98-2	100 ppm	100 ppm	150 ppm	
GLACIAL ACITIC ACID	64-19-7	10 ppm	10 ppm	15 ppm	
STODDARD SOLVENT	8052-41-3	100ppm	100 ppm	NONE	
2-ETHYL-1-HEXANOL	104-76-7	NONE	NONE	NONE	
*GLYCOL ETHER 2-BUTOXYETHANOL	111-76-2	25 ppm	25 ppm	NONE	<0.5
PROPIETARY ADDITIVE- NJTSRN 80963-5170		NONE	NONE	NONE	
PIGMENT (NON HAZARDOUS IN LIQUID FORM)		10mg/m3	10 mg/m3	5 mg/m3	
FILLER (NON HAZARDOUS IN LIQUID FORM)		20 mppcf	3 MG/M3	NONE	

SECTION 2 NOTES: *Indicates toxic chemical(s) subject to reporting requirements of section 313 of Title III and of 40 CFR 372. PROPYLENE GLYCOL MONOMETHYL ETHER CAS #107-98-2 (ACGIH) STEL= 150 PPM. FOLLOW 311B (2) (A) 40 CRF 116, 117, GUIDELINES. FOLLOW TSCA 8 (A) 40 CFR 712, 47 FR 26992 GUIDELINES

SECTION 3: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: LOW VISCOSITY LIQUID IN VARYING COLORS
BOILING POINT OR RANGE ° F: 212
VAPOR DENSITY (AIR = 1): N/A
SPECIFIC GRAVITY (H2O = 1): 1.2
EVAPORATION RATE: N/A
SOLUBILITY IN WATER: EMULSIFIABLE

SECTION 3 NOTES:

SECTION 4: FIRE-FIGHTING MEASURES

FLAMMABLE LIMITS IN AIR, UPPER: N/A
(% by volume) LOWER: N/A

FLASH POINT: 200 +F

METHOD USED:

SETA FLASH

EXTINGUISHING MEDIA:

FOAM, ALCOHOL FOAM, CO2, WATER FOG

SPECIAL FIRE FIGHTING PROCEDURES:

TOXIC FUMES WILL BE EVOLVED WHEN THIS MATERIAL IS INVOLVED IN A FIRE. A SELF-CONTAINED BREATHING APPARATUS SHOULD BE AVAILABLE FOR FIRE FIGHTERS. COOL FIRE EXPOSED CONTAINERS WITH WATER.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

NONE KNOWN

SECTION 4 NOTES:

SECTION 5: STABILITY AND REACTIVITY

STABILITY:

STABLE

CONDITIONS TO AVOID (STABILITY):

AVOID CONTACT WITH OPEN FLAMES AND ALL SOURCES OF IGNITIONS AND SPARKS.

INCOMPATIBILITY (MATERIAL TO AVOID):

AVOID CONTACT WITH STRONG OXIDIZING AGENTS, MINERAL ACIDS AND EPOXY RESINS IN UNCONTROLLED AMOUNTS.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:

CO, CO₂, NOX

HAZARDOUS POLYMERIZATION:

WILL NOT OCCUR

SECTION 5 NOTES:

SECTION 6: HAZARDS IDENTIFICATION

HMIS HAZARD CLASSIFICATION

HEALTH: 2 FLAMMIBILITY: 1 REACTIVITY: 0 PERSONAL PROTECTIVE EQUIPMENT: G

POTENTIAL HEALTH EFFECTS

EYES:

THIS MATERIAL CAN CAUSE EYE IRRITATION OR REDNESS. HIGH VAPOR CONCENTRATIONS CAN CAUSE SEVERE IRRITATION TO THE EYES.

SKIN:

IRRITATION TO THE SKIN CAN OCCUR BUT DERMAL TOXICITY IS LOW.

INGESTION:

INGESTION OF MATERIAL CAN CAUSE NAUSEA OR OTHER SIMILAR RESPONSES.

INHALATION:

HIGH CONCENTRATIONS OF VAPOR CAN CAUSE IRRITATION TO THE RESPIRATORY TRACT, NAUSEA, AND DIZZINESS.

HEALTH HAZARDS (ACUTE AND CHRONIC):

PROLONGED OR REPEATED EXPOSURE MAY CAUSE ASTHMA AND SKIN SENSITIZATION OR OTHER ALLERGIC RESPONSES.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

RESPIRATORY CONDITIONS OR OTHER ALLERGIC AILMENTS

CARCINOGENICITY

OSHA: NO NTP: NO IARC: NO

NO CONSTITUENTS OF THIS PRODUCT ARE REGULATED AS CARCINOGENS UNDER OSHA, IARC, OR NTP PROGRAMS.

SECTION 7: FIRST AID MEASURES

EYES:

IMMEDIATELY FLUSH WITH LARGE AMOUNTS OF WATER FOR AT LEAST 15 MINUTES WHILE LIFTING UPPER AND LOWER LIDS. GET IMMEDIATE MEDICAL ASSISTANCE.

SKIN:

FLUSH SKIN WITH WATER FOR AT LEAST 15 MINUTES AND REMOVE ALL CONTAMINATED CLOTHING IMMEDIATELY. GET MEDICAL ATTENTION IF REDDENING OR SWELLING OCCURS.

INGESTION:

DO NOT INDUCE VOMITING. DILUTE BY GIVING WATER OR MILK TO DRINK IF VICTIM IS CONSCIOUS. GET MEDICAL ATTENTION IMMEDIATELY.

INHALATION:

REMOVE TO FRESH AIR IF EFFECTS PERSIST AND ADMINISTER OXYGEN IF NECESSARY.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS:

SECTION 7 NOTES:

SECTION 8: RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

AVOID CONTACT WITH MATERIAL. WEAR THE APPROPRIATE SAFETY EQUIPMENT. STOP SPILL AT SOURCE, DYKE AREA TO PREVENT SPREADING. PUMP LIQUID TO SALVAGE TANK. TAKE UP REMAINDER WITH CLAY OR OTHER ABSORBANT AND PLACE IN DISPOSAL CONTAINERS.

SECTION 8 NOTES:

SECTION 9: WASTE DISPOSAL

MATERIAL SAFETY DATA SHEET

PRODUCT CODE: PPWB

WASTE DISPOSAL METHOD:

DISPOSE OF THE MATERIAL IN A WASTE DISPOSAL SITE IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL LAWS.

SECTION 10: HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

AVOID ALL SKIN CONTACT. AVOID BREATHING VAPORS. RESEAL PARTIALLY USED CONTAINERS. PROPERLY LABEL ALL CONTAINERS. WASH WITH SOAP AND WATER BEFORE EATING, DRINKING, SMOKING OR USING TOILET FACILITIES. OBSERVE CONDITIONS OF GOOD INDUSTRIAL HYGIENE AND SAFE WORKING PRACTICES.

OTHER PRECAUTIONS:

MIXED MATERIALS CONTAIN THE HAZARDS OF ALL THE COMPONENTS, THEREFORE, READ THE MSDS OF ALL COMPONENTS TO BECOME FAMILIAR WITH ALL HAZARDS PRIOR TO USING THIS PRODUCT.

SECTION 10 NOTES:

SECTION 11: EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:

NIOSH APPROVED RESPIRATOR PROTECTION REQUIRED IN THE ABSENCE OF PROPER ENVIRONMENTAL CONTROLS.

VENTILATION :

AVOID BREATHING VAPORS, VENTILATION MUST BE SUFFICIENT TO CONTROL VAPORS.

PROTECTIVE GLOVES:

IMPERVIOUS GLOVES, NEOPRENE OR RUBBER.

EYE PROTECTION:

SPLASH PROOF GOGGLES OR SAFETY GLASSES WITH SIDE SHIELDS.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT:

CLEAN BODY COVERING CLOTHING AS WELL AS APRON FOOTWEAR OR OTHER EQUIPMENT SHOULD BE USED AS DEEMED NECESSARY TO AVOID CONTACT WITH THE MATERIAL.

WORK HYGIENIC PRACTICES:

OBSERVE GENERAL GOOD HYGIENIC PRACTICES.

SECTION 11 NOTES:

SECTION 12: DISCLAIMER

DISCLAIMER: THE INFORMATION CONTAINED HEREIN IS BASED ON THE DATA AVAILABLE AND IS BELIEVED TO BE ACCURATE, HOWEVER, THE MANUFACTURER MAKES NO WARRANTY EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THIS DATA OR THE RESULTS OBTAINED FROM THE USE THEREOF. ACCORDINGLY, WE ASSUME NO RESPONSIBILITY FOR INJURY FROM THE USE OF THIS PRODUCT.

MATERIAL SAFETY DATA SHEET

PRODUCT CODE: PPWB

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Preprime WB part B
PRODUCT CODES: 015CLEAR B

MANUFACTURER: Norkan WB
STREET ADDRESS: 9 Guttman Avenue
CITY, STATE, ZIP: Charleroi, Pa. 15022

INFORMATION PHONE: 724-483-9300
EMERGENCY PHONE: Chemtrec 800-424-9300
FAX PHONE: 724-483-9306

PREPARED BY: Harry Jackson

DATE REVISED: 2/24/05

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

<u>INGREDIENT</u>	<u>CAS NO.</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>OSHA STEL</u>	<u>WEIGHT %</u>
MODIFIED DIGLYCIDYL ETHER OF BISPHENOL A	25068-38-6	NONE	NONE	NONE	
ALKYL GLYCIDYL ETHER	68609-97-2	NONE	NONE	NONE	

SECTION 2 NOTES:

No toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372 are present.

SECTION 3: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: LOW VISCOSITY LIQUID
BOILING POINT OR RANGE: 200 ° F:
VAPOR DENSITY (AIR = 1) ° F: N/A
SPECIFIC GRAVITY (H2O = 1): 1.1
EVAPORATION RATE: N/A
SOLUBILITY IN WATER: NEGLIGIBLE

SECTION 3 NOTES:

SECTION 4: FIRE-FIGHTING MEASURES

FLAMMABLE LIMITS IN AIR, UPPER: N/A
(% by volume) LOWER: N/A

FLASH POINT: 200 + F

METHOD USED:

SETA FLASH

EXTINGUISHING MEDIA:

FOAM, ALCOHOL FOAM, CO2, DRY CHEMICAL, WATER FOG

SPECIAL FIRE FIGHTING PROCEDURES:

DO NOT ENTER CONFINED FIRE AREA WITHOUT FULL BUNKER GEAR INCLUDING A POSITIVE PRESSURE NIOSH APPROVED SELF-CONTAINED BREATHING APPARATUS, COOL ALL FIRE EXPOSED CONTAINERS WITH WATER.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

NO UNUSUAL FIRE HAZARDS KNOWN.

SECTION 4 NOTES:

SECTION 5: STABILITY AND REACTIVITY

STABILITY:

STABLE

CONDITIONS TO AVOID (STABILITY):

AVOID EXCESSIVE HEAT OR OPEN FLAMES.

INCOMPATIBILITY (MATERIAL TO AVOID):

CAN REACT VIGOROUSLY WITH STRONG OXIDIZING AGENTS AND STRONG LEWIS ACIDS OR MINERAL ACIDS.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:

CO2, ALDEHYDES, ACIDS. REACTION WITH SOME CURING AGENTS CAN GENERATE LARGE AMOUNTS OF HEAT.

HAZARDOUS POLYMERIZATION:

WILL NOT OCCUR

SECTION 6: HAZARDS IDENTIFICATION

HMIS HAZARD CLASSIFICATION

HEALTH: 1 FLAMMIBILITY: 1 REACTIVITY: 0 PERSONAL PROTECTIVE EQUIPMENT: B

POTENTIAL HEALTH EFFECTS

EYES:

MAY CAUSE IRRITATION AND MAY CAUSE CORNEAL DAMAGE.

SKIN:

MAY CAUSE IRRITATION OR ALLERGIC SKIN RESPONSE. NOT LIKELY TO BE ABSORBED IN TOXIC AMOUNTS.

INGESTION:

THIS MATERIAL HAS A PROBABLE LOW ACUTE ORAL TOXICITY.

INHALATION:

NO GUIDE FOR CONTROL KNOWN, HOWEVER, EXPOSURE TO HEATED VAPORS CAN CAUSE IRRITATION TO THE NOSE, THROAT OR MUCOUS MEMBRANES.

HEALTH HAZARDS (ACUTE AND CHRONIC):

EPOXY RESINS CAN CAUSE SENSITIZATION BY EXPOSURE THROUGH CONTACT OR HIGH CONCENTRATIONS OF VAPOR.

EYES: INJURY IS UNLIKELY BUT STAIN FOR EVIDENCE OF CORNEAL INJURY.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

RESPIRATORY CONDITIONS OR OTHER ALLERGIC RESPONSE.

CARCINOGENICITY

OSHA: NO NTP: NO IARC: NO

NO CONSTITUENTS OF THIS PRODUCT ARE REGULATED AS CARCINOGENS UNDER OSHA, IARC, OR NTP PROGRAMS.

SECTION 7: FIRST AID MEASURES

EYES:

FLUSH EYES WITH WATER FOR AT LEAST FIFTEEN MINUTES AND CONSULT A PHYSICIAN.

SKIN:

SKIN CONTACT WILL NORMALLY CAUSE NO MORE THAN IRRITATION BUT WASH AFFECTED AREA WITH SOAP AND WATER AND REMOVE CONTAMINATED CLOTHING PROMPTLY.

INGESTION:

LOW IN TOXICITY, INDUCE VOMITING ONLY IF LARGE AMOUNTS OF MATERIAL ARE INGESTED, OTHERWISE DO NOT INDUCE VOMITING AND CONSULT A PHYSICIAN.

INHALATION:

REMOVE VICTIM TO FRESH AIR AREA AND ADMINISTER OXYGEN IF NECESSARY. CONSULT PHYSICIAN IF NECESSARY.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS:

SECTION 7 NOTES:

SECTION 8: RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

WEAR RESPIRATOR AND PROTECTIVE CLOTHING. SHUT OFF THE SOURCE AT THE LEAK. REMOVE EXCESS WITH VACUUM TRUCK AND TAKE UP THE REMAINDER WITH AN ABSORBANT SUCH AS CLAY AND PLACE IN DISPOSAL CONTAINERS. FLUSH AREA WITH WATER TO REMOVE RESIDUE.

SECTION 8 NOTES:

SECTION 9: WASTE DISPOSAL

WASTE DISPOSAL METHOD: DISPOSE OF THE MATERIAL IN A WASTE DISPOSAL SITE IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL LAWS.

SECTION 10: HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

STORE IN COOL DRY PLACE. SEAL ALL PARTIALLY USED CONTAINERS. WASH WITH SOAP AND WATER BEFORE EATING, DRINKING, SMOKING OR USING TOILET FACILITIES. MIXED MATERIALS CONTAIN THE HAZARDS OF ALL THE COMPONENTS, THEREFOR, READ THE MSDS'S OF ALL THE COMPONENTS PRIOR TO USING MATERIAL. PROPERLY LABEL ALL CONTAINERS.

OTHER PRECAUTIONS:

AVOID ALL SKIN CONTACT. AVOID BREATHING VAPORS GENERATED FROM THE MATERIAL. OBSERVE CONDITIONS OF GOOD GENERAL HYGIENE AND SAFE WORKING PRACTICES. CONTAMINATED LEATHER ARTICLES CANNOT BE CLEANED AND MUST BE DISCARDED IF CONTAMINATED WITH THIS PRODUCT. WASH ALL CONTAMINATED CLOTHING PRIOR TO THE REUSE THEREOF.

SECTION 11: EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:

USE A NIOSH APPROVED RESPIRATOR AS REQUIRED TO PREVENT OVER-EXPOSURE TO VAPOR IN ACCORDANCE WITH 29 CFR 1910.134.

VENTILATION :

GENERAL EXHAUST IS USUALLY SUFFICIENT TO CONTROL VAPORS AND EXPOSURE HAZARDS. HOWEVER, IF VENTILATION IS NOT SUFFICIENT TO CONTROL VAPORS, A NIOSH APPROVED RESPIRATOR MUST BE USED.

PROTECTIVE GLOVES:

IMPERVIOUS GLOVES – NEOPRENE OR RUBBER

EYE PROTECTION:

SPLASH GOGGLES OR GLASSES WITH SIDE SHIELDS.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT:

WEAR BODY COVERING CLOTHING AND OTHER COVERING AS NECESSARY SUCH AS APRON AND APPROPRIATE FOOTWEAR TO AVOID CONTACT WITH MATERIAL.

WORK HYGIENIC PRACTICES:

OBSERVE GOOD GENERAL HYGIENIC PRACTICES.

SECTION 11 NOTES:

SECTION 12: DISCLAIMER

DISCLAIMER: THE INFORMATION CONTAINED HEREIN IS BASED ON THE DATA AVAILABLE AND IS BELIEVED TO BE ACCURATE, HOWEVER, THE MANUFACTURER MAKES NO WARRANTY EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THIS DATA OR THE RESULTS OBTAINED FROM THE USE THEREOF. ACCORDINGLY, WE ASSUME NO RESPONSIBILITY FOR INJURY FROM THE USE OF THIS PRODUCT.



NORKLAD WB

PREMIUM WATERBORNE EPOXY

ORIGINAL COLOR CHIPS CO - 26200 GROESBECK HWY - WARREN, MI



Norklad WB is a two component water based epoxy coating. Low odor, no flammability and excellent adhesion combined with a long lasting finish is why waterborne epoxy dominates the do-it-yourself market. This high gloss epoxy color coat formulated for excellent hide as well as abrasion resistance. Norklad WB is compatible with high performance topcoats; urethanes, epoxies, or 100% solids.

This product has Low VOC and suitable for a variety of applications such as wood, masonry or previous coated surfaces. Steel and vinyl tile can also be coated when primed correctly. This product can withstand exposure to many common solvents and chemicals.

SOLIDS BY WEIGHT:

Mixed = 53% (+, - 2%)

SOLIDS BY VOLUME:

Mixed = 41% (+, - 2%)

VOLATILE ORGANIC CONTENT:

Colors = 1.01 pounds per gallon (mixed)

VOC Compliant in all 50 states.

AVAILABLE COLORS:

Off white, White, Light Gray, Slate, Tile Red, Beige, Taupe, Charcoal, Light Blue, Wheat, Royal Blue, Green, Black

RECOMMENDED FILM THICKNESS:

5 -7 mils per coat wet thickness (yields 2-3 mils dry)

COVERAGE PER GALLON:

229 to 320 square feet @ 5-7 mils wet thickness

PACKAGING INFORMATION

1 gallon, 2 gallon and 5 gallon kits (volume approx.)

MIX RATIO:

8.55# part A (.80 gallons, approximate) to 1.75# part B (.20 gallons, approximate)

SHELF LIFE:

1 year in unopened containers

FINISH CHARACTERISTICS:

Satin gloss (40-80 at 60 degrees @ Erichsen glossmeter)

ABRASION RESISTANCE:

Taber adrasor CS-17 calibre wheel with 1000 gram total load and 500 cycles = 54 mg loss

IMPACT RESISTANCE:

Gardner Impact, direct = 50 in.lb. (passed)

FLEXIBILITY:

No cracks on a 1/8" mandrel

ADHESION:

425 psi @ elcometer (concrete failure, no delamination)

VISCOSITY:

Mixed = 900-1200 cps (colors); (typical)

DOT CLASSIFICATIONS:

Not regulated

ADVANTAGES:

- Chemical, Stain, and Abrasion resistant
- Low odor and a high flash point
- Use over alkyd, latex or epoxy coatings
- Deep penetrating formula
- Easily washed and cleaned
- Low VOC

CURE SCHEDULE: (70F)

pot life – 1 gallon volume	1.0 – 1.5 hours
tack free (dry to touch).....	5-8 hours
recoat or topcoat.....	7-10 hours
light foot traffic.....	16-24 hours
full cure (heavy traffic).....	2-7 days

APPLICATION TEMPERATURE:

55-90 degrees F with relative humidity below 75%

CHEMICAL RESISTANCE:

REAGENT	RATING
acetic acid 5%	B
xylene	B
mek	A
gasoline	B
10% sodium hydroxide	C
50% sodium hydroxide	B
10% sulfuric	B
10% hrdochloric acid	B
20% nitric acid	A
ethylene glycol	C

Rating key: A - not recommended, B - 2 hour term splash spill, C - 8 hour term splash spill, D - 72 hour immersion, E - long term immersion. NOTE: extensive chemical resistance information is available through your sales representative.

PRIMER:

None required, but recommended for better adhesion and uniform sheen

TOPCOAT:

Optional – Norklad WB is compatible with high performance topcoats; urethanes (HPU 747), epoxies (WBC-510), or 100% solids (Norklad 100).

LIMITATIONS:

- * Color or gloss may be affected by humidity, low temperatures, chemical exposure or sodium vapor lighting.
- * Product will yellow in the presence of UV light
- * For best results use a 1/4" or 3/8" nap roller.
- * Slab on grade requires moisture barrier
- * Substrate temperature must be 5°F above dew point.
- * All new concrete must be cured for at least 30 days
- * Improper mixing or too thick of an application may result in product failure
- * Light or bright colors (white, light gray, etc.) may require multiple coats achieve a satisfactory hide, depending on the porosity of the substrate.



NORCLAD WB

APPLICATION INSTRUCTIONS

Original Color Chips – 26200 Groesbeck Hwy Warren, MI 48089 USA – sales@originalcolorchips.com – 1-800-227-8479

SURFACES: New Surfaces: Concrete, Plaster and Masonry - Cure at least 30 days before painting. pH must be 10.0 or lower. Remove laitance and roughen unusually slick poured or precast concrete by acid etching, sandsweeping, grinding, or shot-blasting the floor. If substrate has been washed allow to dry overnight. Remove loose aggregate. Fill voids and cracks in areas of concrete with epoxy filler or patching compound. In moisture prone areas, prime with this product or substitute to achieve best penetration. **Drywall** - Prime with this product or suitable waterborne primer. **Wood** - Prime with this product or prime with suitable waterborne epoxy primer. **Steel** - Prime with waterborne epoxy primer or preprime epoxy. **Galvanized Metal and Aluminum** - Prime with waterborne epoxy primer. **Glazed Brick, Ceramic Tile and Fiberglass** - Scuff sand and prime with waterborne epoxy primer. **Previously Painted Surfaces:** The waterborne components of this product generally allow use over most old coatings. Old coatings should be tested for lifting. If they lift, remove them by chemical or mechanical means. Wash to remove contaminants. Rinse thoroughly and allow to dry. Dull glossy areas by light sanding. Remove sanding dust. Remove loose paint. Mix and begin painting.

PRODUCT STORAGE: Store product in an area so as to bring the material to normal room temperature before using. Continuous storage should be between 60 and 90 degree F. Keep from freezing.

SURFACE PREPARATION: Surface preparation will vary according to the type of complete system to be applied. For a one or two coat thin build system (3-10 mils dry) we recommend either mechanical scarification or acid etching until a suitable profile is achieved. All dirt, oil, dust, foreign contaminants and laitance must be removed to assure a trouble free bond to the substrate. A test should be made to determine that the concrete has an appropriate vapor barrier. This can be done by placing a 4'X4' plastic sheet on the substrate and taping down the edges. If after 24 hours, the substrate is still dry below the plastic sheet, then the substrate does not show signs of eventual hydrostatic pressure problems that may later cause disbanding. However, this product can be applied to a damp floor as long as there are not standing puddles.

PRODUCT MIXING: This product comes pre-packaged by weight. Kits should be mixed in their entirety. If partial kits are to be used, refer to the front of this technical data for proper weight mix ratios. After the two parts are combined, mixes well with slow speed mixing equipment such as a jiffy mixer until the material is thoroughly mixed and streak free. This product is an emulsion product and should be mixed well before using.

PRODUCT APPLICATION: The mixed material can be applied by brush or roller. Maintain temperatures within the recommended ranges during the application and curing process. Apply material with relative humidity within the parameters shown on the technical data. When the end of the pot life has been reached, you will find that the material becomes hard to apply and will actually tend to roll back up onto the roller. Do not try to continue application when the coating has reached this step. Applications made at different times with differing environmental conditions, may show slight variations in gloss.

RECOAT OR TOPCOATING: If you opt to recoat or topcoat this product, you must first be sure that all of the solvents and water have evaporated from the coating during the curing process. Within 7-10 hours it should be ready for your subsequent coat. However, it is best to test the coating before recoating or topcoating. This can be done by pressing on the coating with your thumb to verify that no fingerprint impression is left. If no impression is created, then the recoat or topcoat can be started. Always remember that colder temperatures will require more cure time for the product before recoating or topcoating can commence. Before recoating or topcoating, check the coating to insure no epoxy blushes were developed (a whitish, greasy film or deglossing). If a blush is present, it must be removed prior to topcoating or recoating. A standard type detergent cleaner can be used to remove any blush. Many epoxy overlays and coatings as well as urethanes are compatible for use as a topcoat for this product as well as multiple coats of this product.

CLEANUP: Use PM solvent or soap and water **FLOOR MAINTENANCE:** Caution! Some cleaners may affect the color of the floor installed. Test each cleaner in a small area, utilizing your cleaning technique. If no ill effects are noted, you can continue to clean with the product and process tested.

NOTICE TO BUYER: DISCLAIMER OF WARRANTIES AND LIMITATIONS ON OUR LIABILITY

We warrant that our products are manufactured to strict quality assurance specifications and that the information supplied by us is accurate to the best of our knowledge. Such information supplied about our products is not a representation or a warranty. It is supplied on the condition that you shall make your own tests to determine the suitability of our product for your particular purpose. Listed physical properties are typical and should not be construed as specifications. **NO WARRANTY IS MADE, EXPRESSED OR IMPLIED, REGARDING SUCH OTHER INFORMATION, THE DATA ON WHICH IT IS BASED, OR THE RESULTS YOU WILL OBTAIN FROM ITS USE. NO WARRANTY IS MADE, EXPRESSED OR IMPLIED, THAT OUR PRODUCT SHALL BE MERCHANTABLE OR THAT OUR PRODUCT SHALL BE FIT FOR ANY PARTICULAR PURPOSE. NO WARRANTY IS MADE THAT THE USE OF SUCH INFORMATION OR OUR PRODUCT WILL NOT INFRINGE UPON ANY PATENT.** We shall have no liability for incidental or consequential damages, direct or indirect. Our liability is limited to the net selling price of our product or the replacement of our product, at our option. Acceptance of delivery of our product means that you have accepted the terms of this warranty whether or not purchase orders or other documents state terms that vary from this warranty. No representative is authorized to make any representation or warranty or assume any other liability on our behalf with any sale of our products. Our products contain chemicals that may CAUSE SERIOUS PHYSICAL INJURY. **BEFORE USING, READ THE MATERIAL SAFETY DATA SHEET AND FOLLOW ALL PRECAUTIONS TO PREVENT BODILY HARM.**

MATERIAL SAFETY DATA SHEET

PRODUCT CODE: Norklad WB (015)

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Norklad WB Part A
PRODUCT CODES: NorkWB-A

MANUFACTURER: Norkan Inc
STREET ADDRESS: 26200 Groesbeck Hwy
CITY, STATE, ZIP: Warren, MI 48089 USA

INFORMATION PHONE: 586-771-6500
EMERGENCY PHONE: Chemtrec 800-424-9300
FAX PHONE: 586-771-6501

PREPARED BY: Harry Jackson

DATE REVISED: 4/22/05

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

<u>INGREDIENT</u>	<u>CAS NO.</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>OSHA STEL</u>	<u>WEIGHT %</u>
1,2 ETHANE DIAMINE, N-(2-AMINO ETHYL)	111-40-0	1 ppm	1 ppm	NONE	
TETRAETHYLENE PENTAMINE	112-57-2	NONE	NONE	NONE	
ETHYLENEDIAMINE	107-15-3	10 ppm	10 ppm	10 ppm	
PENTAETHYLENE HEXAMINE	4067-16-7	NONE	NONE	NONE	
WATER	7732-18-5	NONE	NONE	NONE	
PROPYLENE GLYCOL MONOMETHYL ETHER	107-98-2	100 ppm	100 ppm	150 ppm	
GLACIAL ACITIC ACID	64-19-7	10 ppm	10 ppm	15 ppm	
STODDARD SOLVENT	8052-41-3		100ppm	100 ppm	NONE
2-ETHYL-1-HEXANOL	104-76-7	NONE	NONE	NONE	
*GLYCOL ETHER 2-BUTOXYETHANOL	111-76-2	25 ppm	25 ppm	NONE	<0.5
PROPIETARY ADDITIVE-	NJTSRN 80963-5170	NONE	NONE	NONE	
PIGMENT (NON HAZARDOUS IN LIQUID FORM)		10mg/m3	10 mg/m3	5 mg/m3	
FILLER (NON HAZARDOUS IN LIQUID FORM)		20 mppcf	3 MG/M3	NONE	

SECTION 2 NOTES: *Indicates toxic chemical(s) subject to reporting requirements of section 313 of Title III and of 40 CFR 372. PROPYLENE GLYCOL MONOMETHYL ETHER CAS #107-98-2 (ACGIH) STEL= 150 PPM. FOLLOW 311B (2) (A) 40 CRF 116, 117, GUIDELINES. FOLLOW TSCA 8 (A) 40 CFR 712, 47 FR 26992 GUIDELINES

SECTION 3: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: LOW VISCOSITY LIQUID IN VARYING COLORS
BOILING POINT OR RANGE ° F: 212
VAPOR DENSITY (AIR = 1): N/A
SPECIFIC GRAVITY (H2O = 1): 1.2
EVAPORATION RATE: N/A
SOLUBILITY IN WATER: EMULSIFIABLE

SECTION 3 NOTES:

SECTION 4: FIRE-FIGHTING MEASURES

FLAMMABLE LIMITS IN AIR, (% by volume) UPPER: N/A
LOWER: N/A

FLASH POINT: 200 +F

METHOD USED:

SETA FLASH

EXTINGUISHING MEDIA:

FOAM, ALCOHOL FOAM, CO2, WATER FOG

SPECIAL FIRE FIGHTING PROCEDURES:

TOXIC FUMES WILL BE EVOLVED WHEN THIS MATERIAL IS INVOLVED IN A FIRE. A SELF-CONTAINED BREATHING APPARATUS SHOULD BE AVAILABLE FOR FIRE FIGHTERS. COOL FIRE EXPOSED CONTAINERS WITH WATER.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

NONE KNOWN

SECTION 4 NOTES:

MATERIAL SAFETY DATA SHEET

PRODUCT CODE: Norklad WB (015)

SECTION 5: STABILITY AND REACTIVITY

STABILITY:

STABLE

CONDITIONS TO AVOID (STABILITY):

AVOID CONTACT WITH OPEN FLAMES AND ALL SOURCES OF IGNITIONS AND SPARKS.

INCOMPATIBILITY (MATERIAL TO AVOID):

AVOID CONTACT WITH STRONG OXIDIZING AGENTS, MINERAL ACIDS AND EPOXY RESINS IN UNCONTROLLED AMOUNTS.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:

CO, CO₂, NOX

HAZARDOUS POLYMERIZATION:

WILL NOT OCCUR

SECTION 5 NOTES:

SECTION 6: HAZARDS IDENTIFICATION

HMIS HAZARD CLASSIFICATION

HEALTH: 2 FLAMMIBILITY: 1 REACTIVITY: 0 PERSONAL PROTECTIVE EQUIPMENT: G

POTENTIAL HEALTH EFFECTS

EYES:

THIS MATERIAL CAN CAUSE EYE IRRITATION OR REDNESS. HIGH VAPOR CONCENTRATIONS CAN CAUSE SEVERE IRRITATION TO THE EYES.

SKIN:

IRRITATION TO THE SKIN CAN OCCUR BUT DERMAL TOXICITY IS LOW.

INGESTION:

INGESTION OF MATERIAL CAN CAUSE NAUSEA OR OTHER SIMILAR RESPONSES.

INHALATION:

HIGH CONCENTRATIONS OF VAPOR CAN CAUSE IRRITATION TO THE RESPIRATORY TRACT, NAUSEA, AND DIZZINESS.

HEALTH HAZARDS (ACUTE AND CHRONIC):

PROLONGED OR REPEATED EXPOSURE MAY CAUSE ASTHMA AND SKIN SENSITIZATION OR OTHER ALLERGIC RESPONSES.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

RESPIRATORY CONDITIONS OR OTHER ALLERGIC AILMENTS

CARCINOGENICITY

OSHA: NO NTP: NO IARC: NO

NO CONSTITUENTS OF THIS PRODUCT ARE REGULATED AS CARCINOGENS UNDER OSHA, IARC, OR NTP PROGRAMS.

SECTION 7: FIRST AID MEASURES

EYES:

IMMEDIATELY FLUSH WITH LARGE AMOUNTS OF WATER FOR AT LEAST 15 MINUTES WHILE LIFTING UPPER AND LOWER LIDS. GET IMMEDIATE MEDICAL ASSISTANCE.

SKIN:

FLUSH SKIN WITH WATER FOR AT LEAST 15 MINUTES AND REMOVE ALL CONTAMINATED CLOTHING IMMEDIATELY. GET MEDICAL ATTENTION IF REDDENING OR SWELLING OCCURS.

INGESTION:

DO NOT INDUCE VOMITING. DILUTE BY GIVING WATER OR MILK TO DRINK IF VICTIM IS CONSCIOUS. GET MEDICAL ATTENTION IMMEDIATELY.

INHALATION:

REMOVE TO FRESH AIR IF EFFECTS PERSIST AND ADMINISTER OXYGEN IF NECESSARY.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS:

SECTION 7 NOTES:

SECTION 8: RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

AVOID CONTACT WITH MATERIAL. WEAR THE APPROPRIATE SAFETY EQUIPMENT. STOP SPILL AT SOURCE, DYKE AREA TO PREVENT SPREADING. PUMP LIQUID TO SALVAGE TANK. TAKE UP REMAINDER WITH CLAY OR OTHER ABSORBANT AND PLACE IN DISPOSAL CONTAINERS.

SECTION 8 NOTES:

MATERIAL SAFETY DATA SHEET

PRODUCT CODE: Norklad WB (015)

SECTION 9: WASTE DISPOSAL

WASTE DISPOSAL METHOD:

DISPOSE OF THE MATERIAL IN A WASTE DISPOSAL SITE IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL LAWS.

SECTION 10: HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

AVOID ALL SKIN CONTACT. AVOID BREATHING VAPORS. RESEAL PARTIALLY USED CONTAINERS. PROPERLY LABEL ALL CONTAINERS. WASH WITH SOAP AND WATER BEFORE EATING, DRINKING, SMOKING OR USING TOILET FACILITIES. OBSERVE CONDITIONS OF GOOD INDUSTRIAL HYGIENE AND SAFE WORKING PRACTICES.

OTHER PRECAUTIONS:

MIXED MATERIALS CONTAIN THE HAZARDS OF ALL THE COMPONENTS, THEREFORE, READ THE MSDS OF ALL COMPONENTS TO BECOME FAMILIAR WITH ALL HAZARDS PRIOR TO USING THIS PRODUCT.

SECTION 10 NOTES:

SECTION 11: EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:

NIOSH APPROVED RESPIRATOR PROTECTION REQUIRED IN THE ABSENCE OF PROPER ENVIRONMENTAL CONTROLS.

VENTILATION :

AVOID BREATHING VAPORS, VENTILATION MUST BE SUFFICIENT TO CONTROL VAPORS.

PROTECTIVE GLOVES:

IMPERVIOUS GLOVES, NEOPRENE OR RUBBER.

EYE PROTECTION:

SPLASH PROOF GOGGLES OR SAFETY GLASSES WITH SIDE SHIELDS.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT:

CLEAN BODY COVERING CLOTHING AS WELL AS APRON FOOTWEAR OR OTHER EQUIPMENT SHOULD BE USED AS DEEMED NECESSARY TO AVOID CONTACT WITH THE MATERIAL.

WORK HYGIENIC PRACTICES:

OBSERVE GENERAL GOOD HYGIENIC PRACTICES.

SECTION 11 NOTES:

SECTION 12: DISCLAIMER

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MATERIAL SAFETY DATA SHEET

PRODUCT CODE: Norklad WB (015)

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Norklad WB - Part B
PRODUCT CODES: NorkWB-A

MANUFACTURER: Norkan Inc.
STREET ADDRESS: 26200 Groesbeck Hwy
CITY, STATE, ZIP: Warren, MI 48089 USA

INFORMATION PHONE: 586-771-6500
EMERGENCY PHONE: Chemtrec 800-424-9300
FAX PHONE: 586-771-6501

PREPARED BY: Harry Jackson

DATE REVISED: 2/24/05

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

<u>INGREDIENT</u>	<u>CAS NO.</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>OSHA STEL</u>	<u>WEIGHT %</u>
MODIFIED DIGLYCIDYL ETHER OF BISPHENOL A	25068-38-6	NONE	NONE	NONE	
ALKYL GLYCIDYL ETHER	68609-97-2	NONE	NONE	NONE	

SECTION 2 NOTES:

No toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372 are present.

SECTION 3: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: LOW VISCOSITY LIQUID
BOILING POINT OR RANGE: 200 ° F:
VAPOR DENSITY (AIR = 1) ° F: N/A
SPECIFIC GRAVITY (H2O = 1): 1.1
EVAPORATION RATE: N/A
SOLUBILITY IN WATER: NEGLIGIBLE

SECTION 3 NOTES:

SECTION 4: FIRE-FIGHTING MEASURES

FLAMMABLE LIMITS IN AIR,
(% by volume) **UPPER:** N/A
LOWER: N/A

FLASH POINT: 200 + F

METHOD USED:

SETA FLASH

EXTINGUISHING MEDIA:

FOAM, ALCOHOL FOAM, CO2, DRY CHEMICAL, WATER FOG

SPECIAL FIRE FIGHTING PROCEDURES:

DO NOT ENTER CONFINED FIRE AREA WITHOUT FULL BUNKER GEAR INCLUDING A POSITIVE PRESSURE NIOSH APPROVED SELF-CONTAINED BREATHING APPARATUS, COOL ALL FIRE EXPOSED CONTAINERS WITH WATER.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

NO UNUSUAL FIRE HAZARDS KNOWN.

SECTION 4 NOTES:

SECTION 5: STABILITY AND REACTIVITY

STABILITY:

STABLE

CONDITIONS TO AVOID (STABILITY):

AVOID EXCESSIVE HEAT OR OPEN FLAMES.

INCOMPATIBILITY (MATERIAL TO AVOID):

CAN REACT VIGOROUSLY WITH STRONG OXIDIZING AGENTS AND STRONG LEWIS ACIDS OR MINERAL ACIDS.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:

CO2, ALDEHYDES, ACIDS. REACTION WITH SOME CURING AGENTS CAN GENERATE LARGE AMOUNTS OF HEAT.

HAZARDOUS POLYMERIZATION:

MATERIAL SAFETY DATA SHEET

PRODUCT CODE: Norklad WB (015)

WILL NOT OCCUR

SECTION 5 NOTES:

SECTION 6: HAZARDS IDENTIFICATION

HMIS HAZARD CLASSIFICATION

HEALTH: 1 FLAMMIBILITY: 1 REACTIVITY: 0 PERSONAL PROTECTIVE EQUIPMENT: B

POTENTIAL HEALTH EFFECTS

EYES:

MAY CAUSE IRRITATION AND MAY CAUSE CORNEAL DAMAGE.

SKIN:

MAY CAUSE IRRITATION OR ALLERGIC SKIN RESPONSE. NOT LIKELY TO BE ABSORBED IN TOXIC AMOUNTS.

INGESTION:

THIS MATERIAL HAS A PROBABLE LOW ACUTE ORAL TOXICITY.

INHALATION:

NO GUIDE FOR CONTROL KNOWN, HOWEVER, EXPOSURE TO HEATED VAPORS CAN CAUSE IRRITATION TO THE NOSE, THROAT OR MUCOUS MEMBRANES.

HEALTH HAZARDS (ACUTE AND CHRONIC):

EPOXY RESINS CAN CAUSE SENSITIZATION BY EXPOSURE THROUGH CONTACT OR HIGH CONCENTRATIONS OF VAPOR.

EYES: INJURY IS UNLIKELY BUT STAIN FOR EVIDENCE OF CORNEAL INJURY.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

RESPIRATORY CONDITIONS OR OTHER ALLERGIC RESPONSE.

CARCINOGENICITY

OSHA: NO NTP: NO IARC: NO

NO CONSTITUENTS OF THIS PRODUCT ARE REGULATED AS CARCINOGENS UNDER OSHA, IARC, OR NTP PROGRAMS.

SECTION 7: FIRST AID MEASURES

EYES:

FLUSH EYES WITH WATER FOR AT LEAST FIFTEEN MINUTES AND CONSULT A PHYSICIAN.

SKIN:

SKIN CONTACT WILL NORMALLY CAUSE NO MORE THAN IRRITATION BUT WASH AFFECTED AREA WITH SOAP AND WATER AND REMOVE CONTAMINATED CLOTHING PROMPTLY.

INGESTION:

LOW IN TOXICITY, INDUCE VOMITING ONLY IF LARGE AMOUNTS OF MATERIAL ARE INGESTED, OTHERWISE DO NOT INDUCE VOMITING AND CONSULT A PHYSICIAN.

INHALATION:

REMOVE VICTIM TO FRESH AIR AREA AND ADMINISTER OXYGEN IF NECESSARY. CONSULT PHYSICIAN IF NECESSARY.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS:

SECTION 7 NOTES:

SECTION 8: RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

WEAR RESPIRATOR AND PROTECTIVE CLOTHING. SHUT OFF THE SOURCE AT THE LEAK. REMOVE EXCESS WITH VACUUM TRUCK AND TAKE UP THE REMAINDER WITH AN ABSORBANT SUCH AS CLAY AND PLACE IN DISPOSAL CONTAINERS. FLUSH AREA WITH WATER TO REMOVE RESIDUE.

SECTION 8 NOTES:

SECTION 9: WASTE DISPOSAL

WASTE DISPOSAL METHOD: DISPOSE OF THE MATERIAL IN A WASTE DISPOSAL SITE IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL LAWS.

SECTION 10: HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

STORE IN COOL DRY PLACE. SEAL ALL PARTIALLY USED CONTAINERS. WASH WITH SOAP AND WATER BEFORE EATING, DRINKING, SMOKING OR USING TOILET FACILITIES. MIXED MATERIALS CONTAIN THE HAZARDS OF ALL THE COMPONENTS, THEREFOR, READ THE MSDS'S OF ALL THE COMPONENTS PRIOR TO USING MATERIAL. PROPERLY LABEL ALL CONTAINERS.

MATERIAL SAFETY DATA SHEET

PRODUCT CODE: Norklad WB (015)

OTHER PRECAUTIONS:

AVOID ALL SKIN CONTACT. AVOID BREATHING VAPORS GENERATED FROM THE MATERIAL. OBSERVE CONDITIONS OF GOOD GENERAL HYGIENE AND SAFE WORKING PRACTICES. CONTAMINATED LEATHER ARTICLES CANNOT BE CLEANED AND MUST BE DISCARDED IF CONTAMINATED WITH THIS PRODUCT. WASH ALL CONTAMINATED CLOTHING PRIOR TO THE REUSE THEREOF.

SECTION 11: EXPOSURE CONTROLS/PERSONAL PROTECTION

RESPIRATORY PROTECTION:

USE A NIOSH APPROVED RESPIRATOR AS REQUIRED TO PREVENT OVER-EXPOSURE TO VAPOR IN ACCORDANCE WITH 29 CFR 1910.134.

VENTILATION :

GENERAL EXHAUST IS USUALLY SUFFICIENT TO CONTROL VAPORS AND EXPOSURE HAZARDS. HOWEVER, IF VENTILATION IS NOT SUFFICIENT TO CONTROL VAPORS, A NIOSH APPROVED RESPIRATOR MUST BE USED.

PROTECTIVE GLOVES:

IMPERVIOUS GLOVES – NEOPRENE OR RUBBER

EYE PROTECTION:

SPLASH GOGGLES OR GLASSES WITH SIDE SHIELDS.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT:

WEAR BODY COVERING CLOTHING AND OTHER COVERING AS NECESSARY SUCH AS APRON AND APPROPRIATE FOOTWEAR TO AVOID CONTACT WITH MATERIAL.

WORK HYGIENIC PRACTICES:

OBSERVE GOOD GENERAL HYGIENIC PRACTICES.

SECTION 11 NOTES:

SECTION 12: DISCLAIMER

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26200 Groesbeck Hwy.
Warren MI, 48089 USA
(586) 771 - 6500

Application Instructions Waterborne Epoxy Gloss Topcoat

Topcoat:

WATERBORNE EPOXY POLYAMIDE

General Description: A high performance, two-component, clear waterborne gloss epoxy coating for use as a hard, durable high performance architectural coating (HIPAC). Features easy application, low VOC, high flash point, lower odor than solvent-based epoxies, and a hard, tough, stain-resistant finish.

Typical Uses: Use on interior properly prepared poured concrete coated with 2-part epoxy, concrete block, or drywall. Ideal for hard usage areas of schools, hospitals, restaurants, and public buildings.

Special Qualifications: Suitable for use on structural surfaces or surfaces where there is a possibility of incidental food contact in commercial food preparation establishments, food processing plants and federally inspected meat and poultry plants. USDA no longer requires or furnishes product certification letters.

Color: Clear **Finish:** Gloss

Clean-up: Soap and warm water

Weight/Gallon (mixed): 10.1 lbs./gal. (1.21kg/L)

VOC (mixed): 1.72 lbs./gal.

Solids By Volume (mixed): 43% ± 1%

Practical Coverage: Apply at 250-300 sq. ft./gal. (6-8 m²/L) on smooth, sealed surfaces. Actual coverage may vary depending on substrate and application method. May be spray applied at 120-235 sq. ft./gal.

Recommended Film Thickness: -2 mils (25-50 microns per coat)

Service Temperature Limit: 250°F (121°C) in air. May discolor at temperatures over 140°F (60°C).

Flame Spread Rating: Class A (0-25) over noncombustible surfaces

Flash Point: Over 200°F (96°C)

Dry Time: Minimum Recoat 16 Hours
Dry Hard 24 Hours

Shelf Life: 1 year minimum - unopened

Mix Ratio By Volume: 4 (base part A): 1 (converter part B)

Pot Life: 6-8 hours @ 77°F (25°C)

Advantages: Chemical and stain resistant. Resists splash and spillage of alkalis, salts, moisture, oils, grease, foodstuffs and detergents, Abrasion resistant, No odor and a high flash point, Use over alkyd, latex or waterborne epoxy coatings, Long lasting tile-like finish, Easily washed and cleaned, Low VOC, Outstanding resistance to U.V. in its category.

Curing Time: Touch Dry 4-5 hours;
Hard Dry 16-18 hours
Complete Cure 7-days

All surfaces must be sound, dry, clean and free of oil, grease, dirt, mildew, form release agents, curing compounds, efflorescence, loose and flaking paint and other foreign substances.

Mixing: Mix part A and B Separately. Thoroughly mix 4 parts A (entire can) to 1 part B (entire can) and proceed immediately with the application. Mixed material is usable for six to eight hours; Do not thin with solvents or solvent thinned coatings (use warm water). Do not add flow-control materials.

Note: Surfaces coated with this product may become slippery when wet. For additional slip resistance in areas of pedestrian traffic, add one pound of non-skid additive per 300 square feet (either on top of basecoat prior to topcoat application OR flick into topcoat and backroll over it).

Unlike most other systems, this material does not become hard after pot life has expired; it remains liquid during a prolonged period. However, if pot life is exceeded, application will result in lower gloss, loss of chemical resistance and physical properties of coating. More than likely it will remain white. DO NOT APPLY AFTER 6 HOURS OF BEING MIXED. Simply discard. (even if you cap the can, the material will be unusable)

Limitations of Use: Not recommended for immersion service. Exterior exposure will cause yellowing and early dulling. As well as loss of gloss, but does not affect protective properties. For interior use only. Epoxy coatings

may yellow during application and cure if exposed to the combustion by-products of improperly vented fossil fuel burning heaters.

Spreading Rate: Apply at 250-300 sq. ft./gal. (6-8 m²/L) or 5.0-7.0 mils wet (2.0-3.0 mils dry) on smooth, sealed surfaces.

Clear Gloss Topcoat Application: Once ready to apply topcoat (waiting overnight for the basecoat to efficiently cure), mix Part A and Part B together (equals one gallon). Refer to 'Mixing Section' of this product data sheet. Continue mixing throughout application. Be sure to roll ONE **even** coat of Crystal Clear topcoat to entire surface to be coated. Material will go on as milky white (may even look like white paint) but it will dry Crystal Clear. Be sure to use ONE even layer for your first coat. If you do decide to double coat the clear top coat, please allow at the **minimum** of 24 hours for the first layer to cure before attempting a second coat. (heavy or full broadcasts of chips often calls for a double layer of clear coat.)

WARNING! CAUSES EYE AND SKIN BURNS. HARMFUL OR FATAL IF SWALLOWED. ASPIRATION HAZARD-CAN ENTER LUNGS AND CAUSE DAMAGE. HARMFUL IF INHALED. MAY CAUSE CENTRAL NERVOUS SYSTEM EFFECTS, INCLUDING DIZZINESS, HEADACHE OR NAUSEA. CAUSES RESPIRATORY TRACT IRRITATION.

MAY CAUSE ALLERGIC SKIN REACTION. MAY BE HARMFUL IF ABSORBED THROUGH SKIN. OVEREXPOSURE MAY CAUSE BLOOD, LIVER, KIDNEY DAMAGE. WHEN TINTED, CONTAINS ETHYLENE GLYCOL WHICH CAN CAUSE SEVERE KIDNEY DAMAGE WHEN INGESTED AND HAS BEEN SHOWN TO CAUSE BIRTH DEFECTS IN LABORATORY ANIMALS. USE ONLY WITH ADEQUATE VENTILATION. KEEP OUT OF THE REACH OF CHILDREN.

Packaging: 1 gallon kit .56 US gallon Component A .53 liters Component B

The information contained herein is based on the data available to us and is believed to be correct. However, we make no warranty, or implied, regarding the accuracy of this data or the results to be obtained from the use thereof. We assume no responsibility for the injury from expressed use of the product described herein.



ORIGINAL COLOR CHIPS - WBC 510 CLEAR GLOSS TOPCOAT

WATERBORNE GLOSS EPOXY CLEAR COATING

THE ORIGINAL COLOR CHIPS COMPANY 26200 GROESBECK HWY WARREN, MI 48089 USA

General Description: A high performance, two-component, clear waterborne gloss epoxy coating for use as a hard, durable high performance architectural coating (HIPAC). Features easy application, low VOC, high flash point, no odor, and a hard, tough, stain-resistant finish.

Typical Uses: Ideal as a finishing or as a refresher coat on quartz, terrazzo, and epoxy floors. Also suitable as a high quality floor sealer over concrete.

Special Qualifications: Suitable for use on structural surfaces or surfaces where there is a possibility of incidental food contact in commercial food preparation establishments, food processing plants and federally inspected meat and poultry plants. USDA no longer requires or furnishes product certification letters.

Color: Clear **Finish:** Gloss

Clean-up: Soap and warm water

VOC (mixed): 1.65 lbs./gal.

Solids By Volume (mixed): 43.5%

Solids By Weight (mixed): 46%

Practical Coverage: Apply at 300-400 sq. ft./gal. on smooth, sealed surfaces. Actual coverage may vary depending on substrate and application method.

Recommended Film Thickness: .08 -1 mil (dry)

Service Temperature Limit: 250°F (121°C) in air.

May discolor at temperatures over 140°F (60°C).

Flame Spread Rating: Class A (0-25) over noncombustible surfaces

Flash Point: Over 200°F (96°C)

Minimum Recoat 6-18 Hours **Dry Hard** 16-18 Hours

All surfaces must be sound, dry, clean and free of oil, grease, dirt, mildew, form release agents, curing compounds, efflorescence, loose and flaking paint and other foreign substances.

Mixing: Mix part A and B Separately. Thoroughly mix 4 parts A to 1 part B per volume and proceed immediately with the application. Mixed material is usable for six to eight hours; If thinning is necessary, use a max of 8 ounces of cold water. Do not thin with solvents or solvent thinned coatings. Do not add flow-control materials.

Unlike most other systems, this material does not become hard after pot life has expired; it remains liquid during a prolonged period. However, if pot life is exceeded, application will result in lower gloss, loss of chemical resistance and physical properties of coating. DO NOT APPLY AFTER 6 HOURS OF BEING MIXED. Simply discard.

Non-skid Application: Surfaces coated with high-gloss epoxy may become slippery when wet. For additional slip resistance in areas of pedestrian traffic, use the Non-Skid Additive. While applying your color chips into the wet basecoat, use the Original Color Chips Easy Sprinkle Can to sprinkle non-skid grit onto coating. Be sure not to apply non-skid in too high-concentration, otherwise it will be more visible. Sprinkle at (1) 1.5 lb. can of non-skid per 500 square feet. For a more aggressive non-skid: You can apply when rolling out your topcoat by rolling forward, sprinkling non-skid, then backrolling over it. The non-skid (as well as the color chips) will provide tiny bumps onto the floor, without sacrificing high gloss sheen.

Shelf Life: 1 year minimum - unopened

Mix Ratio By Volume: 4 (base – part A): 1 (converter – part B)

Pot Life: 6-8 hours @ 77°F (25°C)

Advantages:

- Chemical and stain resistant
- Resists splash and spillage of alkalis, salts, moisture, oils, grease, foodstuffs and detergents
- Abrasion resistant
- No odor and a high flash point
- Use over alkyd, latex or epoxy coatings
- Long lasting tile-like finish
- Easily washed and cleaned
- Low VOC
- Outstanding resistance to U.V. in its category

Curing Time: Touch Dry 4-5 hours

Hard Dry 16-18 hours

Complete Cure 7-days

Limitations of Use: Not recommended for immersion Service. Exterior exposure will cause yellowing and early dulling. As well as loss of gloss, but does not affect protective properties. For interior use only.

Epoxy coatings may yellow during application and cure if exposed to the combustion by-products of improperly vented fossil fuel burning heaters.

Spreading Rate: Apply at 300-400 sq. ft./gal. on smooth, sealed surfaces. Actual coverage may vary depending on substrate and application method.

Clear Gloss Topcoat Application: Once ready to apply topcoat (waiting overnight for the basecoat to efficiently cure), mix Part A and Part B together (equals .75 gallons). Continue mixing throughout application. A short nap roller (3/8" nap) is recommended. Be sure to roll one **even** coat of Crystal Clear topcoat to entire surface to be coated. Material may go on as a milky white (may even look like white paint) but it will dry Crystal Clear. Be sure to use one even layer. It is often under the assumption that if you apply the epoxy thicker than you will get better protection. This is not necessarily the case for this product. By applying the epoxy in one thick layer, the epoxy may have trouble curing properly which can cause yellowing or milky-white spots. If you do decide to double coat the clear top coat, please allow at the **minimum** of 16 hours for the first layer to cure before attempting a second coat. (heavy or full broadcasts of chips may call for a double layer of clear coat, depending how smooth you want the surface.) For additional UV-resistance in areas of adequate ventilation where solvents are appropriate, the use of an aliphatic urethane can be used over this product.

WARNING! CAUSES EYE AND SKIN BURNS. HARMFUL OR FATAL IF SWALLOWED. ASPIRATION HAZARD-CAN ENTER LUNGS AND CAUSE DAMAGE. HARMFUL IF INHALED. MAY CAUSE CENTRAL NERVOUS SYSTEM EFFECTS, INCLUDING DIZZINESS, HEADACHE OR NAUSEA. CAUSES RESPIRATORY TRACT IRRITATION.

MAY CAUSE ALLERGIC SKIN REACTION. MAY BE HARMFUL IF ABSORBED THROUGH SKIN. OVEREXPOSURE MAY CAUSE BLOOD, LIVER, KIDNEY DAMAGE. WHEN TINTED, CONTAINS ETHYLENE GLYCOL WHICH CAN CAUSE SEVERE KIDNEY DAMAGE WHEN INGESTED AND HAS BEEN SHOWN TO CAUSE BIRTH DEFECTS IN LABORATORY ANIMALS. USE ONLY WITH ADEQUATE VENTILATION. KEEP OUT OF THE REACH OF CHILDREN.

Packaging: .75 gallon kit



26200 Groesbeck Hwy.
Warren MI, 48089
(586) 771 - 6500

Material Safety Data Sheet

Waterborne Epoxy Gloss Topcoat

Part A

Section 1 - PRODUCT DESCRIPTION

Manufactured by: Duochem, Inc.

Address: 1250 Graham Bell - Boucherville, QC. J4B 6H5

Phone: (450) 655-6421 **Fax:** (450) 641-4701

Emergency: (nights & weekends) (450) 464-8291

Use: Epoxy Coating

WHIMS classification: D1A, D2A, D2B

Section 2 - HAZARDOUS INGREDIENTS

Hazardous Ingredients	Concentrate % W.W	Cas No.	LD50 rat-oral	LD50 rabbit skin	LC50 rat-4 hours	Threshold Limit ACGIH
Reaction product of epichlorohydrin & bisphenol A	30 - 60	N.D.	N.D.	N.D.	N.D.	N.D.
Technical alkyl (C12-C14) glycidyl ether	5 - 10	2807-30-9	3089 mg/kg	870 gm/kg	2023 gm/m	25 ppm (skin)

Section 3 - TOXICOLOGICAL & HEALTH HAZARD DATA

LD50 (rat-oral): N.D.

LD50 (rabbit skin): N.D.

LC50 (rat-4 hrs): N.D.

Acute Effect:

Contains an ingredient, which is toxic through skin absorption.

Eyes:

May cause irritation, tears, and redness. Possible damage to cornea.

Skin:

Irritation, dermatitis.

Inhalation:

May cause irritation or respiratory tract (mist or vapors or warm product). Central nervous depression.

Ingestion:

Nausea, pain, vomiting and diarrhea. Central nervous depression.

Chronic Effect:

Skin and respiratory sensitizer.

Remark / Warning:

The massive and repeated overexposure (absorption through skin, inhalation or ingestion) may cause blood disorder (red blood cells hemolysis), liver and kidney damage.

Section 4 - FIRST AID

Eyes:

Wash with plenty of water for at least 15 minutes while maintaining eyelids open. Consult a physician.

Skin:

Wash with mild soap and water. Wash clothing before re-use, discard clothing that cannot be decontaminated. Consult a physician if irritations persists.

Inhalation:

Remove victim to fresh air. Assist breathing if necessary. Consult a physician if still feeling discomfort.

Ingestion:

Ask for medical help. If victim is conscious, give water or milk. **DO NOT INDUCE VOMITING.** Keep victim calm and warm.

Section 5 - PHYSICAL DATA

Physical State:

Liquid.

Odor:

Light epoxide.

Appearance:

Milky white.

Odor Threshold:

N.D.

Vapor Tension:

16.3 KPa @ 55° C (calculated).

Boiling Point:

100° C (water).

Evaporation Rate

(N-Butyl acetate=1):

< 1

Oil/Water Distribution

Coefficient:

N.D.

Density:

1.06 - 1.08

Vapor Density (air=1):

> 1

Freezing Point:

Approx. 0° C

Material Safety Data Sheet
100WB Clear Epoxy Top Coat
Part A continued

Section 6 - FIRE & EXPLOSION HAZARD DATA

Flammability: No
Extinguishing Media: Foam, dry powder, water fog and carbon dioxide gas.
Flash Point: N.A. (extinction of ignition source at 79° C - closed up).
Ignition Point: N.D.
Flammability Limits (% volume): Minimum: 1.3 - Maximum: 9.5 (co solvent).
Hazardous Combustion Products: Carbon monoxide, carbon dioxide.
Explosion Data: No
Special Methods: In the case of major fire, wear self-contained respirator and full protective clothing. Cool nearby containers and structures with water fog.

Section 7 - REACTIVITY DATA

Chemical Stability: Yes.
Incompatibility: Oxidants, bases and acids.
Reactivity/Conditions to Avoid: Non-hazardous polymerization with its part B, see technical bulletin. Excessive heat. Material that freeze becomes irretrievable.
Hazardous Decomposition Products: Carbon monoxide, carbon dioxide when subjected to high temperatures.

Section 8 - PREVENTION

Protection Equipments: Consult safety equipment specialist for more information concerning trade names and models.
Respiratory Protection: Risk of overexposure is low when product is roller applied at room temperature and in a well ventilated area. However, wear cartridge respiratory mask for organic vapors when product is used in confined areas or when spraying.
Eye Protection: Splash proof goggles.
Body Protection: Clothing covering entire arms and legs is recommended.
Hand Protection: Impervious gloves (latex, neoprene,) which cover wrists.
Shoes: Impervious (thick leather or rubber) are suggested.
Ventilation: General (and local when spraying).
Handling: Handle with safe approved handling equipment. Avoid direct contact with product.
Storage/Transportation: Keep in cool, dry and well-ventilated place. Keep containers upright, hermetically closed. Keep from freezing, material that freezes is irretrievable.
Spill/Leak Procedure: Ensure adequate ventilation. Contain with inert material. Shovel into waste disposal approved container. Clean normally.
Waste Disposal: According to Federal regulations.

Section 9 - MATERIAL SAFETY DATA SHEET PREPARATION

<u>LEGEND</u>	
N.A.	Not Applicable
N.D.	Not Determined.

Prepared By: Daniel Bernier
Telephone: (450) 655-6421 (business hours)
(450) 464-8291 (night & weekends)

The information contained herein is based on the data available to us and is believed to be correct. However, we make no warranty, or implied, regarding the accuracy of this data or the results to be obtained from the use thereof. We assume no responsibility for the injury from expressed use of the product described herein.

Material Safety Data Sheet 100WB Clear Epoxy Top Coat

Part B

Section 1 - PRODUCT DESCRIPTION

Manufactured by: Duochem, Inc.

Address: 1250 Graham Bell - Boucherville, QC. J4B 6H5

Phone: (450) 655-6421 **Fax:** (450) 641-4701

Emergency: (nights & weekends) (450) 464-8291

Use: Hardener

WHIMS classification: D2B

Section 2 - HAZARDOUS INGREDIENTS

Hazardous Ingredients	Concentrate % W.W	Cas No.	LD50 rat-oral	LD50 rabbit skin	LC50 rat-4 hours	Threshold Limit ACGIH
Polyamine resin	15 - 40	N.D.	> 2000 mg/kg	> 2000 mg/kg	N.D.	N.D.
Tetraethylenepentamine (TEPA)	1 - 5	112-57-2				
2-Propanol, 1-Propoxy	5 - 10	1569-01-3	2504 mg/kg	3550 mg/kg	N.D.	N.D.
Benzyl alcohol	5 - 10	100-51-6	1230 mg/kg	2000 mg/kg	1415 ppm	5 ppm

Section 3 - TOXICOLOGICAL & HEALTH HAZARD DATA

LD50 (rat-oral): > 3022 mg/kg (calculated).

LD50 (rabbit skin): > 3349 mg/kg (calculated)

LC50 (rat-4 hrs): N.D.

Acute Effect:

None known.

Eyes:

Severe irritation may cause damages to the cornea.

Skin:

Irritation, defatting drying of the skin, dermatitis.

Inhalation:

Irritation of respiratory tract (especially when you open containers, or if product is warm or sprayed). Nervous central system depression.

Ingestion:

Nausea, vomiting and diarrhea. Gastro-intestinal irritation. Aspiration of material into the lungs due to the vomiting can cause chemical pneumonitis which can be fatal.

Chronic Effect:

Prolonged or repeated contact may cause skin sensitization and absorption through skin in harmful amount.

Remark / Warning:

Prolonged and/or repeated inhalation may aggravate pre-existing respiratory diseases.

Section 4 - FIRST AID

Eyes:

Wash with plenty of water for at least 15 minutes while maintaining eyelids open. Consult a physician.

Skin:

Wash with mild soap and water. Wash clothing before re-use, discard clothing that cannot be decontaminated. Consult a physician if irritation.

Inhalation:

Remove victim to fresh air. Assist breathing if necessary. Consult a physician if still feeling discomfort.

Ingestion:

Ask for medical help urgently. If victim is conscious, give water or milk. **DO NOT INDUCE VOMITING.** Keep victim calm and warm.

Section 5 - PHYSICAL DATA

Physical State:

Liquid.

Odor:

Liquid amine and ammonia.

Appearance:

Clear amber.

Odor Threshold:

N.D.

Vapor Tension:

> 7.8 KPa @ 55° C (calculated).

Boiling Point: 100° C (water)
Evaporation Rate (N-Butyl acetate=1): < 1
Oil/Water Distribution Coefficient: N.D.
Density: 1.02 - 1.05
Vapor Density (air=1): > 1
Freezing Point: Approx. 0° C
PH: 9 - 10

Material Safety Data Sheet

100WB Clear Epoxy Top Coat

Part B continued

Section 6 - FIRE & EXPLOSION HAZARD DATA

Flammability: No.
Extinguishing Media: Foam, dry powder, water fog and carbon dioxide gas.
Flash Point: > 100° C - closed up.
Ignition Point: N.D.
Flammability Limits (% volume): Minimum: 1.3 - Maximum: 16.9 (co solvent).
Hazardous Combustion Products: Carbon monoxide, carbon dioxide, hydrocarbons and nitrogen oxides.
Explosion Data: No.
Special Methods: In the case of major fire, wear self-contained respirator and full protective clothing. Cool nearby containers and structures with water fog.

Section 7 - REACTIVITY DATA

Chemical Stability: Yes.
Incompatibility: Oxidants, strong bases.
Reactivity/Conditions to Avoid: Non hazardous polymerization with its part A, see technical bulletin. Excessive heating and freezing.
Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, hydrocarbons and nitrogen oxides when subjected to excessively high temperatures.

Section 8 - PREVENTION

Protection Equipments: Consult safety equipment specialist for more information concerning trade names and models.
Respiratory Protection: Risk of overexposure is low when product is roller applied at room temperature and in a well ventilated area. However, wear cartridge respiratory mask for organic vapors when product is used in confined areas or when spraying.
Eye Protection: Splash proof goggles.
Body Protection: Clothing which covers entire arms and legs is recommended.
Hand Protection: Impervious gloves (latex, neoprene,...) which cover wrists.
Shoes: Impervious (thick leather or rubber) are suggested.
Ventilation: General (and local when spraying).
Handling: Caution must be taken when opening container not to breath in vapors. Handle with safe approved handling equipment. Avoid direct contact with product.
Storage/Transportation: Keep in cool, dry and well-ventilated place. Keep containers upright, hermetically closed. Keep from freezing.
Spill/Leak Procedure: Ensure adequate ventilation. Contain with inert material. Shovel into waste disposal approved container. Clean normally.
Waste Disposal: According to Federal regulations.

Section 9 - MATERIAL SAFETY DATA SHEET PREPARATION

LEGEND	
N.A.	Not Applicable
N.D.	Not Determined.

Prepared By:

Daniel Bernier

Telephone:

(450) 655-6421 (business hours)

(450) 464-8291 (night & weekends)

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