



7818 DEPOT LANE, TAMPA, FL 33637

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C.A.S. NO.: Mixture Proprietary

REVISION DATE: August 21, 2008

# MATERIAL SAFETY DATA SHEET

## 1. PRODUCT IDENTIFICATION

TRADE NAME: Step 3 Terrazzo Floor Polish

DOT SHIPPING NAME: N/A

DOT/UN ID NO.: N/A

DOT CLASS: N/A

LABEL REQUIRED: None

PACKING GROUP: N/A

## 2. INFORMATION ON INGREDIENTS

MATERIAL	C.A.S. NO.	PEL	TLV/TWA	TLV/STEL
Acrylic copolymer	Non-hazardous	N/A	N/A	N/A
Diethylene Glycol Monoethyl Ether	111-90-0	N/A	N/A	N/A
Dipropylene Glycol Monomethyl Ether	34590-94-8	N/A	N/A	N/A
Tri-Butoxyethyl Phosphate	78-51-3	N/A	N/A	N/A
2,2,4-trimethyl-1,3-pentanediol monoisobutyrate	025265-77-4	N/A	N/A	N/A

## 3. HAZARDS IDENTIFICATION

### POTENTIAL HEALTH EFFECTS:

EYES: Vapors, mist and liquid are mildly irritating to eyes.

SKIN: No known irritating effects.

INHALATION: Vapors and mist irritate nose and throat.

INGESTION: None expected in commercial use. Ingestion of the material in small amounts poses no health risk. Ingestion in large amounts poses minimal health risk.

## 4. FIRST AID MEASURES

EYES: Immediately flush eyes with large amounts of water for at least fifteen minutes while holding eyelids apart. Seek medical attention.

SKIN: Remove contaminated clothing. Wash skin with soap and water. Launder contaminated clothing before reuse. If irritation becomes evident, seek medical attention.

INHALATION: Remove victim to fresh air. If symptoms persist or become evident, seek medical attention.

INGESTION: If swallowed, thoroughly wash mouth with water; give two glasses of water for dilution. If person is conscious, induce vomiting. Seek medical attention.

## 5. FIRE FIGHTING MEASURES

FLASH POINT: Non-Combustible

FLAMMABLE LIMITS: Lower: N/A Upper: N/A

**EXTINGUISHING MEDIA:** This product is non-combustible. When involved in a fire, does not contribute any unusual hazards. Use extinguishing media appropriate for surrounding area.

**SPECIAL FIRE FIGHTING PROCEDURE:** Use NIOSH approved self-contained breathing apparatus (SCBA), full face shield and impervious protective clothing. Use water to cool nearby containers and structures exposed to fire. Evacuate all non-essential personnel from the fire area.

**UNUSUAL FIRE EXPLOSION HAZARD:** Product may splatter above 212° F. Extinguish all nearby sources of ignition. Keep all drums cool by water spray to prevent rupture due to steam build up. Floor may become slippery if material is released.

**AUTO IGNITION TEMPERATURE:** Non-combustible.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Acrylic monomers, carbon monoxide, carbon dioxide, AMMONIA, Unidentified organic compounds and highly toxic fumes of phosphorus oxides.

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## **6. ACCIDENTAL RELEASE MEASURES**

**SMALL SPILLS:** Wipe up spills and drips. Transfer into approved containers for disposal.

**LARGE SPILLS:** Dike and absorb with inert material such as vermiculite. Transfer to approved containers for proper disposal.

Dispose of all waste according to all federal, state and local regulations.

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## **7. HANDLING AND STORAGE**

Keep containers closed when not in use. Protect containers from abuse and damage. Protect product from extreme temperatures.

Keep this and all chemical compounds away from children.

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## **8. EXPOSURE CONTROLS, PERSONAL PROTECTION**

**RESPIRATORY PROTECTION:** None required when good ventilation is provided.

**VENTILATION REQUIREMENTS:** Designed and maintained to prevent build up of vapors. Use local or mechanical exhaust.

**EYE PROTECTION:** Safety glasses or goggles.

**SKIN PROTECTION:** Coveralls, aprons, rubber gloves.

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## **9. PHYSICAL AND CHEMICAL PROPERTIES**

**BOILING POINT:** 212° F.

**VAPOR PRESSURE (MM Hg):** > 17 @ 68° F.

**VAPOR DENSITY (AIR = 1):** N/A

**SPECIFIC GRAVITY (H<sub>2</sub>O = 1):** 1.02

**DENSITY (LB/GAL):** 8.5687

**PERCENT VOLATILE BY VOLUME (%):** 84 to 86%

**EVAPORATION RATE (Butyl Acetate = 1):** < 1

**SOLUBILITY IN WATER:** Infinite

**pH:** 7 to 8.5

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## **10. STABILITY AND REACTIVITY**

**CHEMICAL STABILITY:** Is stable.

**HAZARDOUS POLYMERIZATION:** Will not occur.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Acrylic monomers, carbon monoxide, carbon dioxide, AMMONIA, Unidentified organic compounds and highly toxic fumes of phosphorus oxides.

**KEEP AWAY FROM:** Excessive temperatures.

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## **11. TOXICOLOGICAL INFORMATION**

## COMPONENTS:

**ACRYLIC COPOLYMER:** The information in this paragraph is based on the toxicity profiles for a number of acrylic emulsions that are compositionally similar to this component. Typical data are:

Oral LD50 - rat: > 5000 mg/kg.

Dermal LD50 - rabbit: > 5000 mg/kg.

Skin irritation - rabbit: Practically non-irritating.

Eye Irritation - rabbit: Inconsequential irritation.

**DIETHYLENE GLYCOL MONOETHYL ETHER:**

Skin Absorption: No evidence of harmful effects from available information.

Inhalation: Short-term harmful health effects are not expected from vapor generated at ambient temperature.

Skin Contact: Brief contact is not irritating. Prolonged contact causes mild to moderate local redness and swelling.

Eye Contact: Excess redness and swelling of the conjunctiva may occur. Causes irritation, experienced as stinging and discomfort or pain.

**DIPROPYLENE GLYCOL MONOMETHYL ETHER:**

Inhalation LC 50: > 200 mg/l (1 hr.).

Dermal LD 50: > 2 g/kg.

Oral LD 50: 5.3 g/kg.

Irritation: Irritant to eyes and mucous membranes.

**TRI-BUTOXYETHYL PHOSPHATE:**

Eye Contact: Minimally Irritating (rabbit).

Skin Contact: Mildly irritating (rabbit).

Skin Absorption: No significant hazard (rabbit). LD 50 above 10 g/kg (rabbit).

Inhalation: No significant hazard. LC 50 > 4.43 mg/l (rat) (max. attainable concentration).

Ingestion: Practically non-toxic. LD 50 > 500 mg/kg, < 5000 mg/kg (rat).

**2,2,4-TRIMETHYL-1,3-PENTANEDIOL MONOISOBUTYRATE:**

Oral LD 50 (rat): 6.86 mL/kg.

Oral LD 50 (mouse): 1.6-3.2 g/kg.

Inhalation LC 50 (rat): > 2.75 mg/L/6 hours (highest concentration tested).

Dermal LD 50 (guinea pig): > 20 mL/kg (highest dose tested).

Dermal LD 50 (rabbit): > 16 mL/kg (highest dose tested).

Skin irritation (guinea pig): none.

Repeated skin application (guinea pig): slight irritation.

Skin sensitization (guinea pig): none.

Eye irritation (rabbit, unwashed eyes): slight to moderate.

Eye irritation (rabbit, washed eyes): slight.

**ACUTE EFFECTS FROM OVEREXPOSURE:** Continuous skin contact may cause dermatitis. May result in irritation of the skin, eyes, mucous membranes and respiratory tract.

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## 12. ECOLOGICAL INFORMATION

**ACRYLIC COPOLYMER:** None known or reported.

**DIETHYLENE GLYCOL MONOETHYL ETHER:** None known or reported.

**DIPROPYLENE GLYCOL MONOMETHYL ETHER:** None known or reported.

**TRI-BUTOXYETHYL PHOSPHATE:** Aquatic toxicity data:

24 Hr LC 50, Daphnia Magna = 84 mg/l.

48 Hr LC 50, Daphnia Magna = 75 mg/l.

96 Hr LC 50, Fathead Minnow = 16 mg/l.

Reference: Ecetoc, 1992

**2,2,4-TRIMETHYL-1,3-PENTANEDIOL MONOISOBUTYRATE:**

Data for this material have been used to estimate its environmental impact. It has the following properties: a moderate potential to affect some aquatic organisms, a low potential to affect secondary waste treatment microbial metabolism, a low potential to affect the germination and/or early growth of some plants, moderate biodegradability by acclimated microorganisms, a moderate potential to persist in the environment. It is expected to have the following properties: a moderate biochemical oxygen demand and may cause oxygen depletion in aqueous systems.

The direct instantaneous discharge to a receiving body of water of an amount of this chemical which will rapidly produce, by dilution, a final concentration of 3 mg/l or less is not expected to cause adverse environmental effects.

Oxygen Demand Data:

COD: 2.2 g oxygen/g.

ThOD: 2.4 g oxygen/g.

BOD-5 and BOD-20 were not determined because the aqueous solubility of the test article was below that which is required for these tests.

Definition for the following section(s): NOEC = no observed effect concentration, LOEC = lowest observed effect concentration, MATC = maximum acceptable toxicant concentration.

Acute Aquatic Effects Data:

96-h LC 50 (Fathead Minnow): 32 microliters/L, NOEC: 10 microliters/L.

48-h EC 50 (Daphnid): > 100 microliters/L.

96-h LC 50 (Pill Bug): > 100 microliters/L.

96-h LC 50 (Sideswimmer): > 100 microliters/L.

96-h LC 50 (Flatworms): 40 microliters/L, NOEC: 10 microliters/L.

96-h LC 50 (Segmented Worms): 32 microliters/L, NOEC: 10 microliters/L.

96-h LC 50 (Snail): > 100 microliters/L.

Biodegradation: A 21 day test for inherent biodegradability using acclimated microorganisms showed 57% degradation of the test article as measured by carbon dioxide evolution.

Secondary Waste Water Treatment Effects: 5 hour IC 50: > 215 mg/L.

7 Day Plant Germination Effects - No adverse effect concentration:

Lettuce: 100 microliters/L.

Radish: 100 microliters/L.

Ryegrass: 100 microliters/L.

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### 13. DISPOSAL CONSIDERATIONS

Care must be taken to prevent environmental contamination from the use of this material. The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

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### 14. TRANSPORTATION INFORMATION

DOT SHIPPING NAME: Not Regulated.

DOT HAZARD CLASS: N/A.

UN/NA NUMBER: N/A.

PACKING GROUP: N/A.

PRODUCT RQ (lbs): N/A.

DOT LABEL: N/A.

DOT PLACARD: N/A.

PRODUCT LABEL: N/A.

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### 15. REGULATORY INFORMATION

None known.

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### 16. OTHER INFORMATION

HEALTH	FLAMMABILITY	REACTIVITY	SPECIAL HAZARD
1	0	0	N/A

(Degree of hazard: 0 = No Hazard, 4 = Severe Hazard)

**USERS RESPONSIBILITY:** A bulletin such as this cannot be expected to cover all possible individual situations. As the user has the responsibility to provide a safe workplace, all aspects of an individual operation should be examined to determine if, or where, precautions - in addition to those described herein - are required. Any health hazard and safety information herein should be passed on to your customers or employees, as the case may be.

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

< = Less Than

> = More Than

N/A = Not Applicable or Not Available

ND = Not Determined