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~~~~ SECTION 3 ~~~~ HAZARDS IDENTIFICATION ~~~~

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**Potential Health Effects**

**Eyes:**

Contact with product or exposure to vapor may cause mild to moderate eye irritation.

**Skin:**

Contact causes moderate skin irritation. Causes drying of the skin.

**Ingestion:**

While this material has a low degree of toxicity, ingestion of large quantities may cause irritation of the digestive tract.

**Inhalation:**

May cause irritation of the respiratory tract. Coughing and chest pain may result as well as shortness of breath and reduced pulmonary function.

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~~~~ SECTION 4 ~~~~ FIRST AID MEASURES ~~~~

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**Eyes:**

Immediately flush with copious amounts of water for at least 15 minutes. If redness, itching, or burning sensations persist consult a physician or ophthalmologist immediately.

**Skin:**

Immediately wash skin with a generous amount of soap and water. Remove contaminated clothing and shoes and wash before reuse. If irritation persists consult a physician.

**Ingestion:**

Do not induce vomiting. Never give anything by mouth to an unconscious person. Consult a physician immediately.

**Inhalation:**

Remove from source of exposure and into fresh air. If symptoms persist consult a physician immediately. If not breathing, give artificial respiration and call emergency medical services immediately.

**Note to Physician:**

No specific antidote. Supportive care, treatment based on judgment of the physician in response to reactions of the patient.

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~~~~ SECTION 5 ~~~~ FIRE FIGHTING MEASURES ~~~~

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**Flammable Properties**

**Flash Point:** 22OF/104.4C

**Lower Flammable Limits:** 0.85

**Upper Flammable Limit:** 24.6

**Auto Ignition Temperature:** N/A

**Extinguishing Media:**

Foam, CO2, dry chemical, water fog or spray, as appropriate for surrounding fire.

**Special Fire Fighting Procedures:**

Do not enter any enclosed or confined fire space without full protective equipment, including self-contained breathing apparatus (pressure-demand MSHA/NIOSH approved or equivalent) to protect against the hazardous effects of combustion products and oxygen deficiency.

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~~~~ SECTION 6 ~~~~ ACCIDENTAL RELEASE MEASURES ~~~~

**Small Spill:**

Stop spill at source. Pick up with mop and shovel. Rinse well with water.

**Large Spill:**

Wear skin, eye & respiratory protection during clean-up. Evacuate area of all non-essential personnel. Ventilate spill area. Dike, and contain and/or absorb with inert material (sand, earth or other suitable material) to prevent entry into storm drains, sewers and other unauthorized treatment/drainage systems and natural waterways. Scoop up and place in approved containers for proper disposal. Cover with lid. If spill occurs near air inlets or inside, turn off heating or air-conditioning equipment to prevent contaminating building.

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~~~~ SECTION 7 ~~~~ HANDLING AND STORAGE ~~~~

**Handling & Storage:**

Keep from freezing. Keep container cool and dry. Use and store this product with adequate ventilation. Keep product containers tightly closed when not in use. Avoid subjecting this product to extreme temperature variations.

**Other Precautions:**

Avoid skin or eye contact. Avoid prolonged or repeated breathing of vapors and mists. If spilled on clothing, launder before reuse. Do not take internally. Use only in a well ventilated area. Keep out of the reach of children.

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~~~~ SECTION 8 ~~~~ EXPOSURE CONTROLS/PERSONAL PROTECTION ~~~~

**Engineering Controls:**

In outside spray, mixing and rolling applications situate workers upwind of operation & provide airflow in a downwind direction so as to carry fumes and residual spray away from workers. Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(s).

**Respiratory Protection:**

Wear a NIOSH approved respirator appropriate for the vapor or mist concentration at the point of use. Appropriate respirators may be a full-face piece or a half mask air-purifying cartridge respirator equipped for organic vapors/mists, a self-contained breathing apparatus in the pressure demand mode, or a supplied-air respirator. Refer to OSHA standard 29 CFR 1910.134 for additional information.

**Skin Protection:**

The use of nitrile rubber gloves is advised to prevent skin

contact and possible irritation.

**Eye Protection:**

Safety glasses with side shields

## ~~~~ SECTION 9 ~~~~~ PHYSICAL AND CHEMICAL PROPERTIES ~~~~~

Boiling Range: 100C/212F - 441F/227.2C

Melting Point: N/A

Specific Gravity(H2O=1): 1.2645

Vapor Density(Air=1): N/A

Vapor Pressure: 17mm Hg @ 20C/68F Water

Evaporation Rate(N-Butyl Acetate=1) : Slower than ether

Coating V.O.C.: 1.12 lb/gl                      Coating V.O.C.: 134 g/l

Material V.O.C.: 0.44 lb/gl                      Material V.O.C.: 53 g/l

Solubility in Water: Soluble

Appearance: PIGMENTED, VISCOUS.

Odor: FAINT AMMONIACAL ODOR.

pH: 8.0

## ~~~~ SECTION 10 ~~~~~ STABILITY &amp; REACTIVITY DATA ~~~~~

**Stability:**

Stable

**Conditions To Avoid:**

Extremely hot or cold temperatures

**Incompatible Materials:**

Avoid contact with strong acids and strong oxidizing materials.

**Hazardous Decomposition Products**

Thermal decomposition may yield carbon monoxide and carbon dioxide. Unidentified organic compounds in fumes and smoke may be formed during combustion.

**Hazardous Polymerization:**

Not expected to occur

## ~~~~ SECTION 11 ~~~~~ TOXICOLOGICAL INFORMATION ~~~~~

\*Data is for individual components of preparation.

**Materials having a known chronic/acute effects on eyes:**

DIETHYLENE GLYCOL MONBUTYL ETHER CAS#112-34-5 RABBIT:

MODERATE

**Materials having a known dermal toxicity.**

DIETHYLENE GLYCOL MONBUTYL ETHER CAS#112-34-5

SKIN IRRITATION-RABBIT: SLIGHT

SKIN IRRITATION-GUINEA PIG: SLIGHT

DERMAL LD-50 (RABBIT): 2764MG/KG

**Materials having a known oral toxicity.**

DIETHYLENE GLYCOL MONBUTYL ETHER CAS#112-34-5

ORAL LD-50 (RAT): 7292 MG/KG.

ORAL LD-50 (MOUSE): 2406 MG/KG.

TITANIUM DIOXIDE CAS#13463-67-7 Oral LD50 (rat) >25 g/kg

**Materials having a known Inhalation hazard:**

TITANIUM DIOXIDE CAS#13463-67-7 LC50 (rat)>6.82 mg/l(4 hr)

**Identified Acute/ Short-term Effects:**

Headache, nausea, abdominal pain and irritation of the nose, throat and lungs. Skin and eye irritation.

**Identified Carcinogens/Longterm Effects:**

Product ingredients are at or less than de minimis levels or are not considered to be carcinogens by the international agency for research on cancer (IARC), the national toxicology program (NTP) or by the occupational safety and health administration (OSHA).

**Identified Teratogens:**

INFORMATION BASED ON THE TOXICITY PROFILES FOR DIETHYLENE GLYCOL MONOBUTYL ETHER.CAS#112-34-5  
DERMAL STUDY (RABBIT): NOEL FOR MATERNAL TOXICITY = 1000 MG/KG/DAY (HIGHEST DOSE TESTED); NOEL FOR DEVELOPMENTAL TOXICITY = 1000 MG/KG/DAY (HIGHEST DOSE TESTED).  
ORAL STUDY (RAT): LOEL FOR MATERNAL TOXICITY = 5MG/KG; NOEL FOR MATERNAL TOXICITY = NOT ESTABLISHED; NOEL FOR DEVELOPMENTAL TOXICITY = 633 MG/KG/DAY (HIGHEST DOSE TESTED).

**Identified Reproductive toxins :**

INFORMATION BASED ON THE TOXICITY PROFILES FOR DIETHYLENE GLYCOL MONOBUTYL ETHER.CAS#112-34-5  
DERMAL STUDY (13-WEEK, RAT): NOEL FOR MATERNAL/PATERNAL TOXICITY = 2 MG/KG/DAY (HIGHEST DOSE TESTED); NOEL FOR MATERNAL/PATERNAL FERTILITY = 2 MG/KG/DAY (HIGHEST DOSE TESTED); NOEL FOR DEVELOPMENTAL TOXICITY = 2 MG/KG/DAY (HIGHEST DOSE TESTED).  
ORAL STUDY (RAT): NOEL FOR MATERNAL/PATERNAL FERTILITY = 1000 MG/KG/DAY (HIGHEST DOSE TESTED); NOEL FOR EMBRYO/FERTOTOXICITY = 1000 MG/KG/DAY.

**Identified Mutagens:**

NO DATA.

~~~~ SECTION 12 ~~~~ ECOLOGICAL INFORMATION ~~~~~

**Ecotoxicological effects on plants and animals:**

DIETHYLENE GLYCOL MONOBUTYL ETHER CAS#112-34-5:  
OXYGEN DEMAND COD: 2.08g OXYGEN/g  
BOD-5: 0.25g OXYGEN/g.  
ACUTE AQUATIC EFFECTS DATA:  
24HR LC-50 (GOLDFISH): 2700MG/L  
96HR LC-50 (BLUEGILL SUNFISH): 1300 MG/L.

Titanium Dioxide CAS#13463-67-7 96 Hr LC50 (Fathead minnows)>1,000 mg/l

**Chemical Fate :**

In outside spray, mixing and rolling applications situate workers upwind of operation & provide airflow in a downwind direction so as to carry fumes and residual spray away from workers. Local exhaust ventilation recommended if generating vapor, dust or mist. Turn off heating and/or air conditioning equipment to prevent contaminating building. If exhaust ventilation is not adequate, use MSHA or NIOSH approved respirator. Refer to OSHA standard 29 CFR 1910.94 for guidelines.

~~~~ SECTION 13 ~~~~ DISPOSAL CONSIDERATIONS ~~~~~

**Instructions:**

Whatever cannot be saved for reuse should be transferred to an appropriate and approved waste disposal facility. Consult appropriate national, state and local regulatory agencies to ascertain proper disposal procedures.

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**~~~~ SECTION 14 ~~~~ TRANSPORT INFORMATION ~~~~**

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**Shipping Information:**

DOT INFORMATION - 49 CFR 172.101

DOT DESCRIPTION: NOT REGULATED

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**~~~~ SECTION 15 ~~~~ REGULATORY INFORMATION ~~~~**

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**(Not meant to be all inclusive-selected regulations represented)****US Regulations:****Status Of Substances Lists:**

The Concentrations Shown In Section II Are Maximum Ceiling Levels (Weight %) to be used for calculations for regulations.

A reportable quantity is a quantity of a hazardous substance that triggers reporting requirements under the Comprehensive Environmental Response Compensation And Liability Act (CERCLA).

If a spill of a substance exceeds it's reportable quantity (RQ) in CFR 302.3, Table 40 302.4 Appendix A & 302.4 Appendix B, the release must be reported to The National Response Center At (800) 424-8802, The State Emergency Response Commission (SERC), And community emergency coordinators likely to be affected.

**Components present that could require reporting under the statute are:**

NONE KNOWN

Superfund Amendments And Reauthorization Act Of 1986 (SARA) Title III Requires emergency planning based on the Threshold Quantities (TPQ'S) and release reporting based on Reportable Quantities (RQ'S) In 40 CFR 355 Appendix A&B Extremely Hazardous Substances. The emergency planning and release requirements of 40 CFR 355 apply to any facility at which there is present any amount of any extremely hazardous substance (EHS) equal to or in excess of it's Threshold Planning Quantity (TPQ).

**Components present that could require reporting under the statute are:**

NONE KNOWN

EPCRA 40 CFR 372 (Section 313) Requires EPA and the States to annually collect data on releases of certain toxic materials from industrial facilities, and make the data available to the public in the Toxics Release Inventory (TRI). This information must be included in all MSDS'S that are copied and distributed or compiled for this material. Reporting Threshold: Standard: A facility must report if it manufactures (including imports) or processes 25,000 pounds or more or otherwise uses 10,000 pounds or more of a listed toxic chemical during the calendar year.

**Components present that could require reporting under the statute are:****See Section II**

The components of this product are listed or excluded from listing on the US Toxic Substance Control Act (TSCA) chemical substance inventory. Mixtures shall be assumed to present the same health hazards as do the components which comprise one percent (by weight or volume) or greater of the mixture, except that the mixture shall be assumed to present a carcinogenic hazard if it has a component in concentrations of 0.1 percent or greater. The remaining percentage of unspecified ingredients, if any, are not contained in above DeMinimis concentrations and/or are believed to be non-hazardous under the OSHA Hazard Communication Standard

(29 CFR 1910.1200), and may consist of pigments, fillers, defoamers, wetting agents, resins, dryers, anti-bacterial agents, water and/or solvents in varying concentrations.

**International Regulations:**

**Canadian WHMIS:**

This Product Contains the following in recordable amounts:

Titanium Dioxide CAS#13463-67-7

WHMIS Classification: D2A

WHMIS Health Effects Criteria Met by this Chemical:

Very toxic material causing other toxic effects

This MSDS covers multiple bases of the same product line. Certain bases do not contain Titanium Dioxide. Please check Section 2 for details on contents.

**Canadian Environmental Protection Act (CEPA):**

All of the components of this product are exempt or listed on the DSL/NDSL. See Section II For Composition/Information on Ingredients.

**EINECS:**

All of the components of this product are listed in the EINECS inventory or are exempt from notification requirements.

**State Regulations:**

**California:**

California Proposition 65: The following Statement is made in order to comply with The California Safe Drinking Water and Toxic Enforcement Act of 1986

"WARNING: This product contains the chemical(s) appearing below known to the State of California to:

**A: Cause Cancer**

NONE KNOWN

\*If tinted contains Carbon Black: CAS#1333-86-4 and may also contain trace amounts of Crystalline Silica: CAS#14808-60-7

**B: Cause Birth Defects or other Reproductive Harm :**

NONE KNOWN

In addition to the above named chemical(s) (if any), this product may contain trace amounts of chemicals, known to the State of California, to cause Cancer or Birth Defects and other Reproductive Harm

**Delaware:**

NONE KNOWN

**Florida:**

NONE KNOWN

**Idaho:**

NONE KNOWN

**Massachusetts:**

Titanium Dioxide CAS#13463-67-7 SUBSTANCE CODES: 4

**Michigan:**

NONE KNOWN

**Minnesota:**

Titanium Dioxide CAS#13463-67-7

Listed In The Minnesota Hazardous Substances List:

Codes: A

Hazards: --



**PRODUCT NAME: RHINO TOP FINISH TURF GREEN**

**PRODUCT CODE: RT-F-TG**

~~~~ SECTION 1 ~~~~ MANUFACTURER IDENTIFICATION ~~~~

**Manufacturer's Name** : UNITED COATINGS MANUFACTURING CO  
**Address** : 19011 EAST CATALDO AVE.  
: SPOKANE VALLEY, WASHINGTON 99016-9423  
: INITIAL(FIRST CALL)CHEMTREC(800)424-9300  
**INFORMATION PHONE** : (509)926-7143  
**TOLL FREE** : BACKUP(800)541-4383  
**DATE PRINTED** : 3/17/2008  
**DATE REVISED** : April 2004

~~~~ SECTION 2 ~~~~ HAZARDOUS INGREDIENTS/SARA III INFORMATION ~~~~

| Reportable Components   | CAS Number        | MM HG @ Temp   | Weight % |
|---|-------------------|----------------|----------|
| Water   | 7732-18-5         | UNK UNK        | 28       |
| No OEL's Established  |                   |                |          |
| ~   |                   |                |          |
| Acrylic Copolymer Emulsion  | Mixture           | 22.67 68F/20C  | 20       |
| Contains: 0.0-0.1% Aqua Ammonia, CAS#1336-21-6,<br>Manufacturer's suggested guidelines: TWA: 25ppm, STEL: 35ppm.  |                   |                |          |
| ~   |                   |                |          |
| Acrylic Polymer   | Mixture           | 17mmHG 20C/68F | 20       |
| Contains: <=0.2% Aqua Ammonia, CAS #1336-21-6,<br>Manufacturer's suggested guidelines: TWA: 25ppm, STEL: 35ppm.   |                   |                |          |
| ~   |                   |                |          |
| Calcium carbonate   | 1317-65-3         | N/A N/A        | 15       |
| OSHA PEL: 15mg/m3, Total Dust, 5mg/m3, Respirable Dust<br>ACGIH TLV:10mg/m3, total dust containing no asbestos and <1% free Silica.<br>If silica levels above 1.0% are present, the TLV value is 0.1mg of<br>Respirable silica per cubic meter for both OSHA PEL and ACGIH TLV. |                   |                |          |
| ~   |                   |                |          |
| Nepheline syenite, various grades.  | 37244-96-5        | N/A N/A        | 8        |
| No exposure limits have been established for this material.   |                   |                |          |
| ~   |                   |                |          |
| EPOXY DISPERSION  | MIXTURE           | N/A N/A        | 3        |
| MANUFACTURER HOLDS CHEMICAL IDENTITY CONFIDENTIAL.<br>NO OCCUPATIONAL EXPOSURE LIMITS HAVE BEEN ESTABLISHED FOR<br>THIS CHEMICAL COMPONENT.   |                   |                |          |
| * Diethylene glycol monobutyl ether   | 112-34-5          | 0.02 77F/20C   | 2        |
| No exposure limits have been established.<br>Dow industrial hygiene suggests: 35ppm, TWA  |                   |                |          |
| ~   |                   |                |          |
| 1,2 - Propanediol (Propylene Glycol)  | 57-55-6           | 0.22 68F/20C   | 1        |
| AIHA WEEL is 50ppm TOTAL; 10mg/m3 Aerosol only<br>There is no OSHA PEL or ACGIH TLV For Propylene Glycol<br>Worker Environmental Exposure Limit   |                   |                |          |
| ~   |                   |                |          |
| 2,2,4-Trimethyl-1,3-Pentanediol Monoisobutyrate   | 25265-77-40.0168F |                | 1        |
| No occupational exposure limits have been established for this chemical   |                   |                |          |
| ~   |                   |                |          |

This MSDS may be used for other colors and container sizes of this product.

~~~~ SECTION 3 ~~~~ HAZARDS IDENTIFICATION ~~~~

**Potential Health Effects**

**Eyes:**

May cause slight/moderate irritation to the eye

**Skin:**

Irritating to the skin

**Ingestion:**

May cause abdominal pain, nausea, vomiting, dizziness and central nervous system depression

**Inhalation:**

Vapor or spray mist can cause headache, nausea, vomiting and irritation of the nose, throat and lungs

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~~~~ SECTION 4 ~~~~ FIRST AID MEASURES ~~~~

**Eyes:**

Immediately flush eyes with clean, lukewarm water for 15 minutes while lifting eyelids. Consult a physician or ophthalmologist immediately.

**Skin:**

Immediately wash skin with a generous amount of soap and water. Remove contaminated clothing and shoes and wash before reuse. If irritation persists consult a physician.

**Ingestion:**

Do not induce vomiting. Never give anything by mouth to an unconscious person. Consult a physician immediately.

**Inhalation:**

Remove from source of exposure and into fresh air. If symptoms persist consult a physician immediately. If not breathing, give artificial respiration and call emergency medical services immediately.

**Note to Physician:**

None for this material.

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~~~~ SECTION 5 ~~~~ FIRE FIGHTING MEASURES ~~~~

**Flammable Properties**

Flash Point: 220F/104.4C

Lower Flammable Limits: 0.62

Upper Flammable Limit: 24.6

Auto Ignition Temperature: Not available

**Extinguishing Media:**

Carbon dioxide, dry chemical, foam or water fog.

**Special Fire Fighting Procedures:**

Do not enter any enclosed or confined fire space without full protective equipment, including self-contained breathing apparatus (pressure-demand MSHA/NIOSH approved or equivalent) to protect against the hazardous effects of combustion products and oxygen deficiency. Use water spray to cool fire exposed structures and to cool fire exposed containers to prevent pressure build-up and possible rupture of container.

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~~~~ SECTION 6 ~~~~ ACCIDENTAL RELEASE MEASURES ~~~~

**Small Spill:**

Always wear appropriate Personal Protective Equipment as you would if you were using this product. Dike and absorb with inert material such as sand and remove all liquid with the use of a vacuum system. If unable to remove as a liquid, then absorb with sand, saw dust or commercial absorbent, and scoop up and place in containers for proper disposal. Keep spills and cleaning runoff out of the municipal sewers and open bodies of water. Decontaminate all clothing and the spill area with a detergent and large amounts of water.

**Large Spill:**

Wear skin, eye & respiratory protection during clean-up. Evacuate area of all non-essential personnel. Ventilate spill area. Dike, and contain and/or absorb with inert material (sand, earth or other suitable non-combustible material) to prevent entry into storm drains, sewers and other unauthorized treatment/drainage systems and natural waterways. Scoop up and place in approved containers for proper disposal. Cover with lid. If spill occurs near air inlets or inside, turn off heating or air-conditioning equipment to prevent contaminating building.

~~~~ SECTION 7 ~~~~ HANDLING AND STORAGE ~~~~

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**Handling & Storage:**

Keep from freezing. Keep container cool and dry. Use and store this product with adequate ventilation. Keep product containers tightly closed when not in use. Avoid subjecting this product to extreme temperature variations.

**Other Precautions:**

Avoid skin or eye contact. Avoid prolonged or repeated breathing of vapors and mists. If spilled on clothing, launder before reuse. Do not take internally. Use only in a well ventilated area. Keep out of the reach of children.

~~~~ SECTION 8 ~~~~ EXPOSURE CONTROLS/PERSONAL PROTECTION ~~~~

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**Engineering Controls:**

In outside spray, mixing and rolling applications situate workers upwind of operation & provide airflow in a downwind direction so as to carry fumes and residual spray away from workers.

Local exhaust ventilation recommended if generating vapor, dust or mist. Turn off heating and/or air conditioning equipment to prevent contaminating building.

If exhaust ventilation is not adequate, use MSHA or NIOSH approved respirator. Refer to OSHA standard 29 CFR 1910.94 for guidelines.

**Respiratory Protection:**

NONE REQUIRED IF AREA IS ADEQUATELY VENTILATED. FOR RESPIRATORY PROTECTION WITHIN CONFINED AREAS AND FOR CONCENTRATIONS UP TO 10 TIMES THE EXPOSURE LIMIT, USE AN APPROVED AIR-PURIFYING RESPIRATOR EQUIPPED WITH AN AMMONIA/METHYLAMINE CARTRIDGE(S).

**Skin Protection:**

The use of gloves impermeable to the specific material handled is advised to prevent skin contact and possible irritation.

Note that PVA degrades in water.

**Eye Protection:**

Isolate the area immediately; prevent unauthorized entry.

## ~~~~ SECTION 9 ~~~~ PHYSICAL AND CHEMICAL PROPERTIES ~~~~

**Boiling Range:** 100C/212F - 471F/243C

**Melting Point:** N/A

**Specific Gravity(H2O=1):** 1.1848

**Vapor Density(Air=1):** Heavier than air

**Vapor Pressure:** NO DATA

**Evaporation Rate(N-Butyl Acetate=1) :** Slower than ether

**Coating V.O.C.:** 1.15 lb/gl                      Coating V.O.C.: 138 g/l

**Material V.O.C.:** 0.45 lb/gl                      Material V.O.C.: 54 g/l

**Solubility in Water:** Soluble

**Appearance:** PIGMENTED, VISCOUS.

**Odor:** AMMONIA ODOR

**pH:** N/A

## ~~~~ SECTION 10 ~~~~ STABILITY &amp; REACTIVITY DATA ~~~~

**Stability:**

Stable

**Conditions To Avoid:**

Extremely hot or cold temperatures

**Incompatible Materials:**

Avoid contact with strong oxidizing agents, strong alkalis

**Hazardous Decomposition Products**

Thermal decomposition may yield acrylic monomer, carbon monoxide and carbon dioxide. Unidentified organic compounds in fumes and smoke may be formed during combustion.

**Hazardous Polymerization:**

Will not occur

## ~~~~ SECTION 11 ~~~~ TOXICOLOGICAL INFORMATION ~~~~

\*Data is for individual components of preparation.

**Materials having a known chronic/acute effects on eyes:**

AMMONIA CAS# 1336-21-6:

Draize test, rabbit, eye: 250 ug Severe

DIETHYLENE GLYCOL MONBUTYL ETHER CAS#112-34-5

RABBIT: MODERATE

2,2,4-TRIMETHYL-1,3-PENTANEDIOL CAS#25265-77-4

EYE IRRITATION (RABBIT, UNWASHED EYES) SLIGHT TO MODERATE

EYE IRRITATION (RABBIT, WASHED EYES) SLIGHT

**Materials having a known dermal toxicity.**

EPOXY ESTER(2-BUTOXYETHANOL) CAS#111-76-2

Skin rabbit LD50: 220 mg/kg;

DIETHYLENE GLYCOL MONBUTYL ETHER CAS#112-34-5

SKIN IRRITATION-RABBIT: SLIGHT

SKIN IRRITATION-GUINEA PIG: SLIGHT

DERMAL LD-50 (RABBIT): 2764MG/KG

**Materials having a known oral toxicity.**

AMMONIA CAS# 1336-21-6:LD50 (ORAL-RAT): 350 MG/KG.

DIETHYLENE GLYCOL MONBUTYL ETHER CAS#112-34-5  
ORAL LD-50 (RAT): 7292 MG/KG.  
ORAL LD-50 (MOUSE): 2406 MG/KG.

EPOXY ESTER(2-BUTOXYETHANOL) CAS#111-76-2  
Oral rat LD50: 470 mg/kg

**Materials having a known Inhalation hazard:**

AMMONIA CAS# 1336-21-6: rat LC50: 2000 ppm/4-hr  
2500-6500PPM: DANGEROUS FOR AS LITTLE AS 30 MINUTES. 5000-10,000PPM:  
RAPIDLY FATAL FOR SHORT EXPOSURES.

EPOXY ESTER(2-BUTOXYETHANOL) CAS#111-76-2  
Inhalation rat LC50: 450ppm/4H;

2,2,4-TRIMETHYL-1,3-PENTANEDIOL CAS#25265-77-4  
Inhalation LC-50: (rat)6 h: >3.55 mg/l (lowest concentration tested)

**Identified Acute/ Short-term Effects:**

AMMONIA CAS#7664-41-7  
EFFECTS OF SHORT-TERM EXPOSURE:  
The substance is corrosive to the eyes, the skin, and the respiratory tract. Inhalation of high concentrations may cause lung oedema.

**Identified Carcinogens/Longterm Effects:**

Product ingredients are at or less than de minimis levels or are not considered to be carcinogens by the international agency for research on cancer (IARC), the national toxicology program (NTP) or by the occupational safety and health administration (OSHA).

**Identified Teratogens:**

INFORMATION BASED ON THE TOXICITY PROFILES FOR DIETHYLENE GLYCOL MONOBUTYL ETHER.CAS#112-34-5  
DERMAL STUDY (RABBIT): NOEL FOR MATERNAL TOXICITY = 1000 MG/KG/DAY (HIGHEST DOSE TESTED); NOEL FOR DEVELOPMENTAL TOXICITY = 1000 MG/KG/DAY (HIGHEST DOSE TESTED).  
ORAL STUDY (RAT): LOEL FOR MATERNAL TOXICITY = 5MG/KG; NOEL FOR MATERNAL TOXICITY = NOT ESTABLISHED; NOEL FOR DEVELOPMENTAL TOXICITY = 633 MG/KG/DAY (HIGHEST DOSE TESTED).

EPOXY ESTER(2-BUTOXYETHANOL) CAS#111-76-2  
HAS SHOWN TERATOGENIC EFFECTS IN LABORATORY ANIMALS

**Identified Reproductive toxins :**

INFORMATION BASED ON THE TOXICITY PROFILES FOR DIETHYLENE GLYCOL MONOBUTYL ETHER.CAS#112-34-5  
DERMAL STUDY (13-WEEK, RAT): NOEL FOR MATERNAL/PATERNAL TOXICITY = 2 MG/KG/DAY (HIGHEST DOSE TESTED); NOEL FOR MATERNAL/PATERNAL FERTILITY = 2 MG/KG/DAY (HIGHEST DOSE TESTED); NOEL FOR DEVELOPMENTAL TOXICITY = 2 MG/KG/DAY (HIGHEST DOSE TESTED).  
ORAL STUDY (RAT): NOEL FOR MATERNAL/PATERNAL FERTILITY = 1000 MG/KG/DAY (HIGHEST DOSE TESTED); NOEL FOR EMBRYO/FERTOTOXICITY = 1000 MG/KG/DAY.

**Identified Mutagens:**

Ammonia CAS#7664-41-7

Genetic mutations observed in bacterial and mammalian test systems.

~~~~ SECTION 12 ~~~~ ECOLOGICAL INFORMATION ~~~~

**Ecotoxicological effects on plants and animals:**

AMMONIA CAS# 1336-21-6: This material is expected to be very toxic to aquatic life. The LC50/96-hour values for fish are less than 1 mg/l. The EC50/48-hour values for daphnia are less than 1 mg/l.

DIETHYLENE GLYCOL MONOBUTYL ETHER CAS#112-34-5:

OXYGEN DEMAND COD: 2.08g OXYGEN/g

BOD-5: 0.25g OXYGEN/g.

ACUTE AQUATIC EFFECTS DATA:

24HR LC-50 (GOLDFISH): 2700MG/L

96HR LC-50 (BLUEGILL SUNFISH): 1300 MG/L.

EPOXY ESTER(2-BUTOXYETHANOL) CAS#111-76-2

The LC50/96-hour values for fish are over 100 mg/l. This material is not expected to be toxic to aquatic life

**Chemical Fate :**

EPOXY ESTER(2-BUTOXYETHANOL) CAS#111-76-2

When released into the soil, this material is not expected to evaporate significantly. When released into the soil, this material may leach into groundwater. When released into the soil, this material may biodegrade to a moderate extent. When released into water, this material is not expected to evaporate significantly. When released into water, this material may biodegrade to a moderate extent. This material has an estimated bioconcentration factor (BCF) of less than 100. This material is not expected to significantly bioaccumulate. When released into the air, this material is expected to be readily degraded by reaction with photochemically produced hydroxyl radicals. When released into the air, this material is expected to have a half-life of less than 1 day

~~~~ SECTION 13 ~~~~ DISPOSAL CONSIDERATIONS ~~~~

**Instructions:**

Dispose of unused product or contaminated product and materials used in cleaning up spills or leaks in a manner approved for this material. Consult appropriate federal, state and local regulatory agencies to ascertain proper disposal procedures. Incineration is acceptable and the preferred method of disposal, however; nitrogen oxide emissions controls may be required to meet specifications. Chemical and biological degradation is possible. Empty containers will retain product residue and vapors and are subject to proper waste disposal, as above.

~~~~ SECTION 14 ~~~~ TRANSPORT INFORMATION ~~~~

**Shipping Information:**

U.S. DOT TRANSPORT INFORMATION

PROPER SHIPPING NAME: NOT REGULATED

~~~~ SECTION 15 ~~~~ REGULATORY INFORMATION ~~~~

(Not meant to be all inclusive-selected regulations represented)

US Regulations:

**Status Of Substances Lists:**

The Concentrations Shown In Section II Are Maximum Ceiling Levels (Weight %) to be used for calculations for regulations. A reportable quantity is a quantity of a hazardous substance that triggers reporting requirements under the Comprehensive Environmental Response Compensation And Liability Act (CERCLA).

If a spill of a substance exceeds it's reportable quantity (RQ) in CFR 302.3,Table 40 302.4 Appendix A & 302.4 Appendix B, the release must be reported to The National Response Center At (800) 424-8802, The State Emergency Response Commission (SERC), And community emergency coordinators likely to be affected.

**Components present that could require reporting under the statute are:**

SEE SECTION II FOR PERCENTAGES

\*TOXIC:           NOT REPORTABLE IN QUANTITIES LESS THAN 1%

AMMONIA CAS#7664-41-7 RQ 100 #

AQUA AMMONIA CAS#1336-21-6 RQ 1000 #

Superfund Amendments And Reauthorization Act Of 1986 (SARA) Title III Requires emergency planning based on the Threshold Quantities(TPQ'S)and release reporting based on Reportable Quantities (RQ'S) In 40 CFR 355 Appendix A&B Extremely Hazardous Substances. The emergency planning and release requirements of 40 CFR 355 apply to any facility at which there is present any amount of any extremely hazardous substance(EHS) equal to or in excess of it's Threshold Planning Quantity(TPQ).

**Components present that could require reporting under the statute are:**

AMMONIA CAS#7664-41-7 RQ: 100# TPQ: 500#

EPCRA 40 CFR 372(Section 313) Requires EPA and the States to annually collect data on releases of certain toxic materials from industrial facilities, and make the data available to the public in the Toxics Release Inventory(TRI). This information must be included in all MSDS'S that are copied and distributed or compiled for this material. Reporting Threshold: Standard: A facility must report if it manufactures (including imports) or processes 25,000 pounds or more or otherwise uses 10,000 pounds or more of a listed toxic chemical during the calendar year.

**Components present that could require reporting under the statute are:**

**See Section II**

The components of this product are listed or excluded from listing on the US Toxic Substance Control Act (TSCA) chemical substance inventory. Mixtures shall be assumed to present the same health hazards as do the components which comprise one percent (by weight or volume) or greater of the mixture, except that the mixture shall be assumed to present a carcinogenic hazard if it has a component in concentrations of 0.1 percent or greater. The remaining percentage of unspecified ingredients, if any, are not contained in above DeMinimis concentrations and/or are believed to be non-hazardous under the OSHA Hazard Communication Standard (29 CFR 1910.1200), and may consist of pigments, fillers, defoamers, wetting agents, resins, dryers, anti-bacterial agents, water and/or solvents in varying concentrations.

**International Regulations:**

**Canadian WHMIS:**

CLASS D - POISONOUS AND INFECTIOUS MATERIALS  
Division 2 Materials Causing Other Toxic Effects  
Subdivision B - Toxic Materials

**Canadian Environmental Protection Act (CEPA):**

All of the components of this product are exempt or listed on the DSL. See section 2 for composition/information on ingredients.

**EINECS:**

|                                   |                |                   |
|-----------------------------------|----------------|-------------------|
| AMMONIA                           | CAS#7664-41-7  |                   |
| EINECS#:231-635-3                 |                |                   |
| CALCIUM CARBONATE                 | CAS#1317-65-3  | EINECS#:215-665-4 |
| AMMONIA                           | CAS#1336-21-6  | EINECS#:215-647-6 |
| DIETHYLENE GLYCOL MONOBUTYL ETHER | CAS#112-34-5   | EINECS#:203-961-6 |
| EPOXY ESTER(2-BUTOXYETHANOL)      | CAS#111-76-2   | EINECS#:203-905-0 |
| PROPYLENE GLYCOL                  | CAS#57-55-6    | EINECS#:200-338-0 |
| 2,2,4-TRIMETHYL-1,3-PENTANEDIOL   | CAS#25265-77-4 | EINECS#:246-771-9 |

**State Regulations:**

**California:**

California Proposition 65: The following Statement is made in order to comply with The California Safe Drinking Water and Toxic Enforcement Act of 1986

"WARNING:This product contains the chemical(s) appearing below known to the State of California to:

**A: Cause Cancer**

NONE KNOWN

\*If tinted contains Carbon Black: CAS#1333-86-4 and may also contain trace amounts of Crystalline Silica: CAS#14808-60-7

**B: Cause Birth Defects or other Reproductive Harm :**

NONE KNOWN

In addition to the above named chemical(s)(if any),this product may contain trace amounts of chemicals, known to the State of California, to cause Cancer or Birth Defects and other Reproductive Harm

**Delaware:**

Listed on the Delaware Air Quality Management List:

|              |               |           |
|--------------|---------------|-----------|
| Ammonia      | CAS#7664-41-7 | DRQ 100#  |
| Ammonia Aqua | CAS#1336-21-6 | DRQ 1000# |

**Florida:**

AMMONIA CAS#7664-41-7 LISTED AS TOXIC

EPOXY ESTER(2-BUTOXYETHANOL) CAS#111-76-2 LISTED AS TOXIC

2,2,4-TRIMETHYL-1,3-PENTANEDIOL CAS#25265-77-4 LISTED AS TOXIC

**Idaho:**

**Massachusetts:**

|                                 |                |                  |
|---------------------------------|----------------|------------------|
| AMMONIA                         | CAS#7664-41-7  | CODES            |
| 2,4,5,6,*E,F6,F8,F9             |                |                  |
| CALCIUM CARBONATE               | CAS#1317-65-3  | CODES:4          |
| AMMONIA AQUA                    | CAS#1336-21-6  | CODES: F8        |
| EPOXY ESTER(2-BUTOXYETHANOL)    | CAS#111-76-2   | CODES:2,4,6,F8   |
| 2,2,4-TRIMETHYL-1,3-PENTANEDIOL | CAS#25265-77-4 | CODES:2,4,5,6,F8 |

**Michigan:**

NONE KNOWN

**Minnesota:**

THE FOLLOWING ARE LISTED IN THE MINNESOTA HAZARDOUS SUBSTANCES LIST

| CHEMICAL NAME                   | CAS#       | CODES | HAZARDS | CARCINOGEN? |
|---------------------------------|------------|-------|---------|-------------|
| AMMONIA                         | 7664-41-7  | ANOS  | --      | NO          |
| CALCIUM CARBONATE               | 1317-65-3  | A     | --      | NO          |
| EPOXY ESTER(2-BUTOXYETHANOL)    | 111-76-2   | A     | SKIN    | NO          |
| PROPYLENE GLYCOL                | 57-55-6    | I     | --      | NO          |
| 2,2,4-TRIMETHYL-1,3-PENTANEDIOL | 25265-77-4 | AO    | --      | NO          |

**New Jersey:**

AMMONIA CAS#7664-41-7  
 NEW JERSEY EXTRAORDINARILY HAZARDOUS SUBSTANCE:  
 EPA THRESHOLD:10,000  
 NJ THRESHOLD:5200

AMMONIA CAS#1336-21-6  
 NEW JERSEY EXTRAORDINARILY HAZARDOUS SUBSTANCE  
 EPA THRESHOLD:N/A  
 NJ THRESHOLD:19,000

2,2,4-TRIMETHYL-1,3-PENTANEDIOL CAS#25265-77-4  
 NEW JERSEY RTK HAZARDOUS SUBSTANCE

**New York:**

AMMONIA CAS#7664-41-7RQ-AIR 100,RQ-  
 LAND 100  
 AMMONIA CAS#1336-21-6RQ-AIR 1000,RQ-LAND 100  
 2,2,4-TRIMETHYL-1,3-PENTANEDIOL CAS#25265-77-4RQ-AIR 5000,RQ-LAND 1

**Pennsylvania:**

|                                 |                |         |
|---------------------------------|----------------|---------|
| AMMONIA                         | CAS#7664-41-7  | CODE:E  |
| CALCIUM CARBONATE               | CAS#1317-65-3  | CODE:E  |
| TITANIUM DIOXIDE                | CAS#13463-67-7 | CODE:-- |
| AMMONIA                         | CAS#1336-21-6  | CODE:E  |
| EPOXY ESTER(2-BUTOXYETHANOL)    | CAS#111-76-2   | CODE:-- |
| PROPYLENE GLYCOL                | CAS#57-55-6    | CODE:-- |
| 2,2,4-TRIMETHYL-1,3-PENTANEDIOL | CAS#25265-77-4 | CODE:E  |

**Washington:**

|                             |     |                |
|-----------------------------|-----|----------------|
| AMMONIA CAS#7664-41-7       |     |                |
| WASHINGTON AIR CONTAMINANT: | ppm | mg/Cubic Meter |
| TWA                         | 25  | 18             |
| STEL                        | 35  | 27             |
| CEILING                     | UNK | UNK            |
| SKIN:UNK                    |     |                |

|   |     |                |
|---|-----|----------------|
| CALCIUM CARBONATE(RESPIRABLE) CAS#1317-65-3 |     |                |
| WASHINGTON AIR CONTAMINANT:                 | ppm | mg/Cubic Meter |
| TWA   | UNK | 5              |
| STEL  | UNK | UNK            |
| CEILING                                     | UNK | UNK            |
| SKIN:UNK                                    |     |                |

|  |     |                |
|--|-----|----------------|
| EPOXY ESTER(2-BUTOXYETHANOL) CAS#111-76-2                            |     |                |
| WASHINGTON AIR CONTAMINANT:  | ppm | mg/Cubic Meter |
| TWA  | 25  | 120            |
| STEL   | UNK | UNK            |
| CEILING  | UNK | UNK            |
| SKIN:PROTECTIVE MEASURES SHOULD BE TAKEN TO PREVENT OR MINIMIZE SKIN |     |                |

ABSORPTION

2,2,4-TRIMETHYL-1,3-PENTANEDIOL CAS#25265-77-4  
WASHINGTON AIR CONTAMINANT:      ppm                      mg/Cubic Meter  
TWA                                      10                              40  
STEL                                      15                              60  
CEILING                                  UNK                              UNK  
SKIN:UNK

Wisconsin:

West Virginia

~~~~ SECTION 16 ~~~~ OTHER INFORMATION ~~~~

HMIS® III

Health                                      : 2  
Flammability                                : 0  
Physical Hazard                             : 0

\*Following Health rating Indicates Chronic/Carcinogenic Effects

HMIS® III Personal Protection        : I

This rating is for the product as it is packaged. This rating will need to be adjusted by the user based on conditions of use.

The information contained herein is furnished without warranty of any kind. Users should consider these data only as a supplement to other information gathered by them & determine the suitability & completeness of information from all sources to assure proper use & disposal of these materials & the safety & health of employees & customers

PRODUCT NAME: RHINO TOP FINISH TILE RED

PRODUCT CODE: RT-F-TR

~~~~ SECTION 1 ~~~~ MANUFACTURER IDENTIFICATION ~~~~

Manufacturer's Name : UNITED COATINGS MANUFACTURING CO  
 Address : 19011 EAST CATALDO AVE.  
                   : SPOKANE VALLEY, WASHINGTON 99016-9423  
                   : INITIAL(FIRST CALL)CHEMTREC(800)424-9300  
 INFORMATION PHONE : (509)926-7143  
 TOLL FREE : BACKUP(800)541-4383  
 DATE PRINTED : 3/17/2008  
 DATE REVISED : UNRECOGNIZED KEYWORD: /RD

~~~~ SECTION 2 ~~~~ HAZARDOUS INGREDIENTS/SARA III INFORMATION ~~~~

| Reportable Components | CAS Number | MM HG @ Temp | Weight % |
|-----------------------|------------|--------------|----------|
|-----------------------|------------|--------------|----------|

~~~~ SECTION 3 ~~~~ HAZARDS IDENTIFICATION ~~~~

Potential Health Effects

Eyes:

Skin:

Ingestion:

Inhalation:

~~~~ SECTION 4 ~~~~ FIRST AID MEASURES ~~~~

Eyes:

Skin:

Ingestion:

Inhalation:

Note to Physician:

~~~~ SECTION 5 ~~~~ FIRE FIGHTING MEASURES ~~~~

Flammable Properties

Flash Point: N/A

Lower Flammable Limits: N/A

Upper Flammable Limit: N/A

Auto Ignition Temperature:

Extinguishing Media:

Special Fire Fighting Procedures:

~~~~ SECTION 6 ~~~~ ACCIDENTAL RELEASE MEASURES ~~~~

Small Spill:

Large Spill:

~~~~ SECTION 7 ~~~~ HANDLING AND STORAGE ~~~~

Handling & Storage:

## Other Precautions:

## ~~~~ SECTION 8 ~~~~ EXPOSURE CONTROLS/PERSONAL PROTECTION ~~~~~

Engineering Controls:

Respiratory Protection:

Skin Protection:

Eye Protection:

## ~~~~ SECTION 9 ~~~~ PHYSICAL AND CHEMICAL PROPERTIES ~~~~~

Boiling Range: N/A

Melting Point:

Specific Gravity(H2O=1): 1.1826

Vapor Density(Air=1):

Vapor Pressure:

Evaporation Rate(N-Butyl Acetate=1) :

Coating V.O.C.: 0.93 lb/gl                      Coating V.O.C.: 111 g/l

Material V.O.C.: 0.35 lb/gl                      Material V.O.C.: 42 g/l

Solubility in Water:

Appearance:

Odor:

pH:

## ~~~~ SECTION 10 ~~~~ STABILITY &amp; REACTIVITY DATA ~~~~~

Stability:

Conditions To Avoid:

Incompatible Materials:

Hazardous Decomposition Products

Hazardous Polymerization:

## ~~~~ SECTION 11 ~~~~ TOXICOLOGICAL INFORMATION ~~~~~

\*Data is for individual components of preparation.

Materials having a known chronic/acute effects on eyes:

Materials having a known dermal toxicity.

Materials having a known oral toxicity.

Materials having a known Inhalation hazard:

Identified Acute/ Short-term Effects:

Identified Carcinogens/Longterm Effects:

Identified Teratogens:

Identified Reproductive toxins :

Identified Mutagens:

## ~~~~ SECTION 12 ~~~~ ECOLOGICAL INFORMATION ~~~~~

Ecotoxicological effects on plants and animals:

Chemical Fate :

## ~~~~ SECTION 13 ~~~~ DISPOSAL CONSIDERATIONS ~~~~~

Instructions:

## ~~~~ SECTION 14 ~~~~ TRANSPORT INFORMATION ~~~~~

Shipping Information:

## ~~~~ SECTION 15 ~~~~ REGULATORY INFORMATION ~~~~~

(Not meant to be all inclusive-selected regulations represented)

US Regulations:

Status Of Substances Lists:

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greater. The remaining percentage of unspecified ingredients, if any, are not contained in above DeMinimis concentrations and/or are believed to be non-hazardous under the OSHA Hazard Communication Standard (29 CFR 1910.1200), and may consist of pigments, fillers, defoamers, wetting agents, resins, dryers, anti-bacterial agents, water and/or solvents in varying concentrations.

**International Regulations:**

**Canadian WHMIS:**

**Canadian Environmental Protection Act (CEPA):**

**EINECS:**

**State Regulations:**

**California:**

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**B: Cause Birth Defects or other Reproductive Harm :**

In addition to the above named chemical(s) (if any), this product may contain trace amounts of chemicals, known to the State of California, to cause Cancer or Birth Defects and other Reproductive Harm

**Delaware:**

**Florida:**

**Idaho:**

**Massachusetts:**

**Michigan:**

**Minnesota:**

**New Jersey:**

**New York:**

**Pennsylvania:**

**Washington:**

**Wisconsin:**

**West Virginia**

M A T E R I A L   S A F E T Y   D A T A   S H E E T

RHINO TOP FINISH TILE RED

Page: 5  
3/17/2008

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**Flammability** : 0

**Physical Hazard** : 0

\*Following Health rating Indicates Chronic/Carcinogenic Effects

**HMIS® III Personal Protection** :

This rating is for the product as it is packaged. This rating will need to be adjusted by the user based on conditions of use.