MATERIAL SAFETY DATA SHEET

This MSDS complies with 29 CFR 1910.1200 (OSHA Hazard Communication Standard) and Canadian WHMIS Regulations.

IMPORTANT: Read this MSDS before handling and disposing of this product.

Pass this information on to employees, customers and users of this product.

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identity: Defenseal

HMIS Hazard Ratings

Intended Use: Construction Waterproofing Material

Health 1* Fire 1

Manufacturer: Protecto Wrap Company

Reactivity 0

1955 South Cherokee Street

Denver, CO 80223

Telephone: (303) 777-3001

Fax: (303) 777-9273 Internet: www.protectowrap.com

Emergency Phone: CHEMTREC: (800) 424-9300

MSDS Date of Preparation: 09/16/10

2. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Component	CAS No.	Amount	Exposure Limit
NJTS-50001-NCD	N/A	40-60%	
NJTS-50274-NVE	N/A	1-5%	
Ammonium Hydroxide	1336-21-6	<1%	50ppm

Non-Hazardous Components >1%: Resins and Polymers 70-90%

Non-Hazardous Component	CAS No.	Amount	Exposure Limit
Ethyl Hydroxyethyl Cellulose	9004-58-4	1%	N/D
Water	7732-18-5	35-55%	

3. HAZARDS IDENTIFICATION

This product is a blue liquid with a latex paint odor.

EMERGENCY OVERVIEW

CAUTION: MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION. INGESTION MAY CAUSE GASTRIC DISTURBANCES.

Potential Health Effects

Primary Routes of Exposure:

Routes of entry for solids and liquids include eye and skin contact, inhalation and ingestion. Routes of entry for gasses include inhalation and eye contact. Skin contact may be a route of entry for liquefied product

Acute Toxicity:

Ingestion may cause gastric disturbances.

Irritation:

Irritation is possible when the product comes in contact with the skin, respiratory system or the eyes.

Carcinogenicity:

IARC NTP OSHA No No No

4. FIRST AID MEASURES

EYE: First check victim for contact lenses and remove if present. Flush victim's eyes with large quantities of water, holding the eyelids apart. Get medical attention if irritation persists.

SKIN: Remove contaminated clothing. Wash skin thoroughly with soap and water. If rash or irritation develop, get medical attention

INGESTION: If conscious, rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious or convulsing person. Get immediate medical attention.

INHALATION: If symptoms of exposure develop, remove victim to fresh air. If breathing is difficult or symptoms persist, get medical attention.

5. FIRE FIGHTING MEASURES

FLASH POINT: 300°F

FLAMMABLE LIMITS: LEL: Not applicable UEL: Not applicable

AUTOIGNITION TEMPERATURE: Not determined

EXTINGUISHING MEDIA: Use media appropriate for surrounding fire. Water fog, Foam,dry

extinguishing media.

UNUSUAL FIRE OR EXPLOSION HAZARDS: None known.

SPECIAL FIRE-FIGHTING INSTRUCTIONS: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing. Do not allow run-off from fire fighting to enter drains or water courses.

HAZARDOUS COMBUSTION PRODUCTS: Carbon monoxide, carbon dioxide and Hydrocarbons. Thermal decomposition may produce oxides of Carbon and Nitrogen. Residue will contain copper.

EXPLOSION DATA (sensitivity to mechanical impact or static discharge): None known.

6. ACCIDENTAL RELEASE MEASURES

Collect using an inert absorbent material and place in an appropriate container for disposal. Prevent spill from entering sewers and water courses. Report releases as required by local, state and federal authorities.

7. HANDLING AND STORAGE

HANDLING: Avoid contact with the eyes and skin. Wash with soap and water after use.

Use with adequate ventilation. This product may contain low levels of volatile organic compounds or ammonia which may evaporate during application and drying.

STORAGE: Store in a cool, well ventilated area away from direct sunlight. Do not store in containers made of aluminum, copper or their alloys. Protect from freezing. Do not allow material to freeze.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE GUIDELINES: Refer to Section 2.

ENGINEERING CONTROLS: General ventilation should be adequate for normal use. In areas where the product is spray applied or dried, local exhaust ventilation may be needed.

RESPIRATORY PROTECTION: For situations where the product is sprayed or in misty conditions, a NIOSH approved respirator with dust/mist cartridges should be used. Selection and use of respiratory equipment must be in accordance with OSHA 1910.134 and good industrial hygiene practice. For firefighting, use self-contained breathing apparatus.

SKIN PROTECTION: Impervious gloves such as rubber are recommended where needed to prevent prolonged / repeated skin contact.

EYE PROTECTION: Safety glasses or goggles should be worn where contact is possible. **OTHER:** Wear long sleeved shirt and long pants to avoid skin contact. Wash thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Blue liquid with a latex paint odor.

PHYSICAL STATE: Liquid
BOILING POINT: Not available
VAPOR PRESSURE: Not available
VAPOR DENSITY: Not available
EVAPORATION RATE: Not available

SOLUBILITY IN WATER: Insoluble when cured.

BULK DENSITY: Not available **SPECIFIC GRAVITY:** Not available

pH: approx 9.0

MELTING POINT: Not available

Freezing Point: 32 °F (0 °C)

OCTANOL/WATER COEFFICIENT: No data available

VOC CONTENT BY VOLUME: 31g/L

10. STABILITY AND REACTIVITY

STABILITY: Stable under normal storage and handling conditions.

INCOMPATIBILITY: Strong oxidizers.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide and hydrocarbons. Thermal decomposition may produce oxides of Carbon and Nitrogen. Residue will contain copper.

HAZARDOUS POLYMERIZATION: Will not occur.

11. TOXICOLOGICAL INFORMATION

HEALTH HAZARDS:

INGESTION: Swallowing may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

INHALATION: Mists may cause irritation of the nose and throat with coughing.

EYE: May cause mild irritation.

SKIN: Prolonged contact may cause irritation.

SENSITIZATION: This product is not expected to cause sensitization.

CHRONIC/CARCINOGENICITY: Prolonged skin contact may cause irritation.

MUTAGENICITY: No adverse effects from available data. **SYNERGISTIC PRODUCTS**: None specifically known.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Employees with pre-existing skin

disorders may be at increased risk from exposure.

ACUTE TOXICITY VALUES:

Oral: LD50/rat >2,000/10,000 mg/kg

Skin: Rabbit: non-irritant (OECD guidline 404) **Eye:** Rabbit: non-irritant (OECD guidline 405)

CHRONIC TOXICITY:

N/A

Other Information:

Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses. This statement was derived from products of similar composition.

12. ECOLOGICAL INFORMATION

Environmental fate and transport

Styrofan Biodegradation:

Test Method: OECD 320B; ISO 9888; 88/EEC, part C

Method of analysis: DOC reduction

Degree of elimination: >70%

Evaluation: Easily eliminated from water before curing.

The product can be virtually eliminated from water by abiotic processes

e.g. adsorption onto activated sludge.

Bioaccumulation:

Based on its structural properties, the polymer is not biologically available. Accumulation in organisms is not to be expected.

Enviornmental toxicity

Acute and prolonged toxicity to fish: OCED Guideline 203 static

Zebra fish/LC50 (96h); > 100mg/L

Acute toxicity to aquatic invertebrates:

OECD Guidline 202, part 1 static

Daphnia magna/EC50 (48h): >100mg/L

Toxicity to aquatic plants:

OECD Guidline 201 green algae/EC50 (72h): > 100mg/L Nominal concentration.

Toxicity to Microrganisms:

DIN EN ISO 8192-OECD 209-88/302/EEC, P. C activated sludge, domestice/ EC20 (0.5h) >100mg/L The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

Other ecotoxilogical advice:

Do not release untreated material into natural waters. At present knowledge, no ecological effects are expected. Ecological data are determined by analogy.

13. DISPOSAL CONSIDERATIONS

Dispose in accordance with local, state and federal environmental regulations.

Incinerate or dispose of in a liscensed facility. Do not discharge into drains and or surface waters / groundwater.

Container Disposal:

Dispose of at a licensed facility. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

14. TRANSPORT INFORMATION

DOT HAZARDOUS MATERIALS DESCRIPTION:

Proper Shipping Name: Not Regulated

UN Number: None

Hazard Class/Packing Group: None

Labels Required: None

15. REGULATORY INFORMATION

CERCLA/SUPERFUND: This product is not subject to CERCLA reporting requirements.

SARA HAZARD CATEGORY (311/312): Acute Health

SARA 313 INFORMATION: This product contains the following chemicals subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372): None **EPA TSCA INVENTORY:** All of the ingredients in this product are listed on the EPA TSCA Inventory.

CALIFORNIA PROPOSITION 65

This product contains a chemical(s) known to the State of California to cause cancer.

OSHA: Hazardous by definition of Hazardous Communication Standard (29 CFR 1910.1200) **CANADA:** This product has been classified under the CPR and this MSDS discloses information elements required by the CPR.

CANADIAN WHMIS CLASSIFICATION: Not a controlled product.

16. OTHER INFORMATION

NFPA RATING: Health = 1 Fire = 1 Reactivity = 0 **HMIS RATING:** Health = 1 Fire = 1 Reactivity = 0

REVISION SUMMARY: Product update / Formulation Change.

NOTICE

The supplier disclaims all expressed or implied warranties of merchantability or fitness for a specific use, with respect to the product or the information provided herein, except for conformation to contracted specifications. All information appearing herein is based upon data obtained from manufacturers and/or recognized technical sources. While the information is believed to be accurate, we make no representations as to its accuracy or sufficiency. Conditions of use are beyond our control and therefore, users are responsible for verifying the data under their own operating conditions to determine whether the product is suitable for their particular purposes and they assume all risks of their use, handling and disposal of the product. Users also assume all risks in regards to the publication or use of, or reliance upon, information contained herein.

This information relates only to the product designated herein and does not relate to its use in combination with any other material or process.