

Material Safety Data Sheet

Section 1. Chemical Product and Company Identification

Product/Trade Name Rainforest Sealer, Bio Poly, Bio Poly NT, Handmade Foodgrade (One Coat Wood Finish, Rainforest Sealer), One Coat Wood Finish

Supplier / Manufacturer Earthpaint Incorporated
Po Box 19129, Asheville, NC 28805
828-258-2580

Chemical Name Natural Resin, Wax & Oil Mixtures

Code WDF2009

MSDS#

Validation Date

Print Date 1-14-09

EMERGENCY PHONE

Nationwide Poison Center
Hotline: 1.800.222.1222

Section 2. Information on Hazardous Ingredients - may contain one or more of the following

Name	CAS #	% by Weight
1) D-limonene, Citrus Terpenes	94266-47-4	0 - 40%
2) Zinc Borate (nuisance dust hazard)	138265-88-0	0 - 5%

Section 3. Hazards Identification See Section 8 for Exposure Controls/ Exposure Limits/ Personal Protection information.

EMERGENCY OVERVIEW

Despite this products obvious low toxicity an attempt has been made on this MSDS to illustrate how even natural materials, used incorrectly, can have negative health effects.

Product is an amber, oil-like liquid with a vegetable oil / Citrus odor. May be harmful if swallowed. D-limonene is a potential skin sensitizer.

After prolonged contact with highly porous (rags, steel wool)materials, this product may spontaneously combust. Dry wet rags flat outdoors or soak in water, dry flat and compost. May cause eye, lung and skin irritation. Check for personal sensitivities before using.

HMIS

HEALTH:

FIRE:

REACTIVITY:

PPE: see Section 8 of this MSDS.

0=Minimal; 1=Slight; 2=Moderate;
3=Serious; 4=Severe;
(*)=Chronic health hazard.

Potential Health Effects	Product may cause eye irritation. If heated product contacts the eye, thermal burns may result.
Eye Contact	
Skin Contact	Product may cause skin irritation. When it is heated, this product may cause thermal burns.
Inhalation	Exposure to oil mists/vapors/fumes may cause respiratory tract irritation. Heating this product may release harmful vapors. Inhalation of mists/vapor/fumes/dust generated by heating or spraying this product may cause respiratory tract irritation with throat discomfort, coughing and difficulty breathing.
Ingestion	Ingestion of large quantities may result in gastrointestinal disturbances including irritation, nausea, and diarrhea. Aspiration into lungs may cause severe damage, including chemical pneumonitis and pulmonary edema.

Section 4. First Aid Measures

Eye Contact	Immediately flush eyes with flooding amounts of cool, low pressure water for at least 15 minutes. If irritation persists, get medical attention. If hot product contacts eye, flush with water for at least 15 minutes and seek medical attention immediately.
Skin Contact	In case of skin contact, wash immediately with soap and water. If irritation develops or persists, get medical attention. If hot product contacts skin, cool under running water and get medical attention. Launder contaminated clothing before reuse.
Inhalation	Move person to non-contaminated air. If affected person is not breathing, apply artificial respiration. Seek medical attention.
Ingestion	If swallowed, contact a physician or poison control center immediately. DO NOT induce vomiting unless directed to do so by medical personnel.
Notes to Physician	Provide general supportive measures and treat symptomatically. In case of ingestion, the decision of whether or not to induce vomiting should be made by the attending physician. If burn is present, treat as any thermal burn.

*****If victims of chemical over-exposure are taken for medical attention, give a copy of the label or MSDS to the physician/health professional.*****

Section 5. Fire and Explosion Data

Flammability of the Product	Non flammable.	NFPA 704 <table style="width: 100%; border: none;"> <tr> <td style="width: 30%;"></td> <td style="text-align: center;">Health</td> <td style="text-align: center; font-size: 2em;">1</td> <td style="text-align: center; font-size: 2em;">1</td> <td style="text-align: center;">0</td> <td style="width: 30%;"></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">Flammability</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">Reactivity</td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">Specific Hazard</td> <td></td> </tr> </table> <div style="border: 1px solid black; padding: 2px; margin-top: 5px;"> 0=Minimal; 1=Slight; 2=Moderate; 3=Serious; 4=Severe </div> <p style="font-size: 0.8em; margin-top: 5px;">This information is for people trained in the National Fire Protection Association's (NFPA 704) Identification of the Fire Hazards of Materials.</p>		Health	1	1	0						Flammability						Reactivity						Specific Hazard	
	Health		1	1	0																					
					Flammability																					
					Reactivity																					
					Specific Hazard																					
Auto-Ignition Temperature	Not available.																									
Flash Point	>200F, Cleveland Open Cup (Estimated)																									
Flammable Limits	Not available.																									
General Fire Hazards	Product is not considered combustible. If heated above its flash point in the presence of air, product can support combustion. Porous material such as rags, paper, insulation, or organic clay may spontaneously combust when wetted with this material. If mist is generated, minimum flash point may be reduced.																									
Hazardous Decomposition Products	Smoke, carbon monoxide, carbon dioxide, and other products of combustion.																									
Extinguishing Media	Carbon dioxide, dry chemical or water. Avoid using a direct stream of water.																									
Fire Fighting Equipment and Instructions	Wear full protective clothing, including self-contained positive pressure/pressure demand breathing apparatus, helmet, and protective clothing. Use water spray to cool fire-exposed containers and to protect personnel.																									

Section 6. Accidental Release Measures

Containment	Contain the discharged material. Do not allow product to enter public drainage systems or open water courses. Check with local and state environmental agencies for guidance.
Clean-up Procedures	Spills may present a slipping (physical) hazard. Wear appropriate protective equipment and clothing during clean-up. Absorb spilled material with an inert, nonflammable material. Shovel material into appropriate container for disposal. Thoroughly wash spill area with water after clean-up. WATER SPILL: product is regulated as an oil under the Clean Water Act. Follow all applicable regulations. Follow all Local, State, Federal and Provincial regulations for disposal.
Evacuation Procedures	Isolate area. Keep unnecessary personnel away. In case of large spills, follow all facility emergency response procedures.
Special Instructions	Remove soiled clothing and laundry before reuse (see Section 7 - Storage). Avoid excessive skin contact with spilled material. Wear appropriate personal protective equipment.

Section 7. Handling and Storage

Handling	Avoid prolonged or repeated skin contact with this material. Wash thoroughly after handling. Avoid inhalation of mists/vapors/fumes. Wear NIOSH approved respirator when spraying or sanding. Keep this product from heat, sparks, or open flame. Do not use air pressure or apply heat with open flame to remove contents of container. After emptied, container may retain solid, liquid and/or vapor residues. Continue to observe all precautions on label as if can were full. Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet or applying cosmetics.
Storage	Store at ambient temperature and atmospheric pressure. Porous material such as clothing, rags, paper, insulation, or organic clay may spontaneously combust when wetted with this material.

Section 8. Exposure Controls/Personal Protection

Engineering Controls	Provide local exhaust and general ventilation systems to maintain airborne concentrations below OSHA, ACGIH, and manufacturer recommended exposure limits. Local exhaust ventilation is preferred because it prevents contaminant dispersion into work areas by controlling it at its source. Use local and general exhaust ventilation to effectively remove and prevent buildup of mists/vapors/fumes generated from the handling of this product. Open windows and keep air circulating when applying in residential areas.
Personal Protection	
Eye/Face:	Wear chemical goggles and face shield if splashing is possible. Ensure compliance with OSHA's personal protective equipment (PPE) standard for eye and face protection, 29 CFR 1910.133.

Skin:	Use impervious gloves. Work clothing sufficient to prevent all skin contact should be worn, such as coveralls and long sleeves. For heated/molten product, use any type thermal insulating gloves and other clothing as necessary to protect from thermal burns. Ensure compliance with OSHA's personal protective equipment (PPE) standard, 29 CFR 1910.132 (general) and 138 (hand protection).
Respiratory:	GAS/VAPOR: Respirators should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134) and ANSI's standard for respiratory protection (Z88.2-1992). A written respiratory protection program, including provisions for medical certification, training, fit-testing, exposure assessments, maintenance, inspection, cleaning, and convenient, sanitary storage, must be implemented. For concentrations above the TLV and/or PEL but less than 10 times these limits, a NIOSH approved half-facepiece respirator equipped with appropriate chemical cartridges may be used. For concentrations greater than 10 times the TLV and/or PEL, consult the NIOSH respirator decision logic found in Publication No. 87-116 or ANSI Z88.2-1992. Warning! Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.
General:	Eye wash fountains and emergency showers are recommended. Launder contaminated clothing before reuse. Use good industrial hygiene practices in handling this material. Observe exposure limits for Oil Mist (NOC): ACGIH TLV TWA: 5 mg/m ₃ ; STEL 10 mg/m ₃ ; OSHA PEL TWA: 5 mg/m ₃ .

Chemical Name or Product Name	CAS #	OSHA PEL	ACGIH TLV
1) Zinc Borate	138265-88-0	15 mg/m ³	10 mg/m ³
2) Citrus D-limonene	94266-47-4	None established	None established

NOTE: The 1989 OSHA PELs were vacated in 1993 and are not currently enforceable by Federal OSHA. However, some state OSHA programs may still enforce the 1989 limits.

Section 9. Physical and Chemical Properties

Physical state and appearance	Liquid. (Oily liquid)	Vapor Density	Heavier than Air
Odor	Vegetable oil / citrus odor.	Percent Volatile (EPA Method 24)	Less than 350 g/L
Color	Ivory to Amber	Solubility (water)	Negligible
Weight Per Gallon	7 to 8.6 lbs.	Density (vs. water)	Not available.
Specific Gravity	0.91 (Water = 1)	Flash Point	Above 200F Open Cup (estimated)
Boiling Point	(water) 300-592F	R/B Softening Point	Not applicable
pH	Not applicable.	Acid No. (per ASTM D-465)	.7-4

Section 10. Stability and Reactivity Data

Chemical Stability	The product is stable.
Conditions to avoid	Avoid strong oxidizing agents. Avoid prolonged contact with porous materials.
Incompatibility	This product may react with strong oxidizing agents.
Hazardous Decomposition Products	Upon decomposition, product emits carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.
Hazardous Polymerization	Hazardous polymerization will not occur.

Section 11. Toxicological Information

Toxicity to Animals	No data available for product.
Toxicity to Humans	Contact may cause skin or eye irritation.

Inhalation of mists/fumes/vapors generated by heating this product may cause respiratory tract irritation with throat discomfort, coughing and difficulty breathing.

CARCINOGENIC EFFECTS: Not available. **MUTAGENIC EFFECTS:** Not available. **TERATOGENIC EFFECTS:** Not available. No information available on the toxicity of this product to the reproductive system.

Section 12. Ecological Information

Ecotoxicity When spilled, this product may act as an oil, causing a film, sheen, emulsion, or sludge at or beneath the surface of a body of water. Oils of any kind can cause: (a) drowning of waterfowl due to lack of buoyancy, loss of insulating capacity of feathers, starvation and vulnerability to predators due to lack of mobility; (b) lethal effect on fish by coating gill surfaces, preventing respiration; (c) potential fish kills resulting from alteration in biochemical oxygen demand; (d) asphyxiation of benthic life forms when floating masses become engaged with surface debris and settle on the bottom; and (e) adverse aesthetic effects of fouled shoreline and beaches.

Environmental Fate Biodegradeable.

Section 13. Disposal Considerations

Waste Disposal Wastes must be tested using methods described in 40 CFR 261 to determine if it meets applicable definitions of hazardous waste. No EPA Waste Numbers are applicable for this product's components in the quantities outlined herein. Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations. Write to the address listed in Section 1 for information on heavy metals analysis and other disposal information.

Section 14. Transport Information

DOT Classification Not a DOT controlled material (United States). Zinc borate is regulated as a hazardous material by the U.S. Department of Transportation (DOT) if transported in quantities greater than 1000 pounds (454 kilograms) in one package. Since the amount of zinc borate in the product does not exceed this quantity, the U.S. DOT does not consider the product to be a hazardous material. Therefore, as shipped, this product is not regulated by the U.S. Department of Transportation.

Proper Shipping Name None

DOT Identification Number None

Packing Group None

Hazardous Substances Reportable Quantity 10,000 lbs or more in a single package of this product.

Special Provisions for Transport IF SHIPPED OVER 100°C (but less than product flash point): DOT Shipping Name: Elevated temperature liquid, n.o.s.; Hazard Class: 9; UN/NA Number: UN3257; Packing group III (bulk shipping requires "HOT" placard).

Additional Shipping Information Not Determined

International Transportation Regulations Not Determined

Section 15. Regulatory Information

Federal and State Regulations OSHA: Not hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). SARA TITLE III:
SARA Section 302 (40 CFR 355 Appendix A): **None of this product's components are listed;**
SARA 311/312 (40 CFR 370.2): **None;**
SARA Section 313 (40 CFR 372.65): **None of this product's components are listed**
CERCLA (40 CFR 302.4): **None of this product's components are listed above reportable quantities.**
EPA, Clean Water Act: Regulated as a non-petroleum based oil. Spills of this material to navigable waters in quantities sufficient to produce "sheen" are reportable.
21CFR175, FDA Code of Federal Regulations; food contact surfaces; Handmade Food Grade products meet or exceeds this regulation. All other wood finishes may comply but we don't recommend for food contact surfaces because they contain mineral salt driers which we wouldn't want in food.
TSCA Inventory: All of this product's components are listed.
International Inventories: All of this product's components are on or exempt from these inventories: Canada (DSL), Europe (EINECS), Japan (ENCS), Korea (ECL), China (IECS) and the Philippines (PICCS).

State Lists: None of this product's components are listed in CA, FL, MA, MN, NJ, or PA. This product does not contain any chemicals currently on the California List of Known Carcinogens and Reproductive Toxins.

Section 16. Other Information

Key/Legend

ACGIH = American Conference of Governmental Industrial Hygienists. ANSI = American National Standards Institute. ASTM = American Society for Testing and Materials. CERCLA = Comprehensive Environmental Response, Compensation and Liability Act. DOT = Department of Transportation. EPA = Environmental Protection Agency. IARC = International Agency for Research on Cancer. LD = Lethal Dose. NIOSH = National Institute of Occupational Health and Safety. NTP = National Toxicology Program. OSHA = Occupational Safety and Health Administration. PEL = Permissible Exposure Limit. SARA = Superfund Amendments and Reauthorization Act. TLV = Threshold Limit Value. TSCA = Toxic Substance Control Act.

Validated by Tom Rioux on 1-14-09

Printed

Supersedes Date 3/13/05 **Reason for Revision** Updated Sections 2, 5 and 9.

Notice to Reader

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