

MATERIAL SAFETY DATA SHEET

MSDS NO. EIRM

May be used to comply with OSHA's Hazard Communication Standard, 29CFR 1910.1200. Standard must be consulted for specific requirements. This format is similar to that suggested in ANSI standard Z400.1-1998

Important: Do not leave any blank spaces. If required information is unavailable, unknown, or doesn't apply, so indicate.

*N/A=No information available

*N/AP=Not Applicable

Section 1 - Company and Chemical Identification

BIO QUEST ENVIRONMENTAL PRODUCTS

EMERGENCY PHONE: 1-800-356-1776

3 LEDGEWOOD DR.

Old Lyme, CT 06371

Phone: 860-434-2081

Product Use: Citrus Based Ink Remover

Date: December 13, 2005

CHEMICAL DESCRIPTION: MICROEMULSION OF D-LIMONENE AND SURFACTANT

Section 2 – Chemical Composition and Data on Components

Component(s) (chemical & common name)	CAS NO.	OSHA PEL	ACGIH TLV	Other Exposure Limits	% (optional)
Water	7732-18-5				
D-Limonene	5989-27-5				
Anionic Detergent Blend	Blend				
Alcohol Ethoxylate	68439-46-3				
Monoethanolamine	141-43-5				
Dodecyl Benzene Sulfonic Acid	27176-87-0				

NPCA-HMIS Rating: Health - 1 Flammability - 0 Reactivity - 0 PPE - X

Section 3 - Health Hazard Identification**Hazard Summary:**

Environmental Ink Remover is a microemulsion based on a natural citrus solvent. Contact with this cleaner will defat the tissue of the skin and eyes, causing redness and irritation. If contact to the skin or eyes occur, the product should be rinsed off with water. For the eyes, the eyes should be flushed for 15-20 minutes. To avoid dryness of the skin, a hand or body lotion may be applied. There are no long term effects known from personal contact with **Environmental Ink Remover**.

Acute:

Skin or eye irritation

Chronic:

None known

Signs and Symptoms of Exposure:

Redness or dryness of skin or eyes

Medical Conditions Generally Aggravated by Exposure:

Dermatitis

Chemical Listed as Carcinogen or Potential Carcinogen

National Toxicology Program

Yes
No ✓

I.A.R.C Yes
No ✓

OSHA Yes
No ✓

Section 4 - First Aid Measures**Routes of Entry and Emergency/First Aid Procedures****1. Inhalation:**

Unlikely - seek fresh air

2. Eyes:

Possible - irritant - flush with water for 20 minutes

3. Skin:

Possible - wash with water

4. Ingestion:

Unlikely - dilute with plenty of water and seek medical attention

Section 5 - Fire Fighting Measures & Data

Flash Point	Method Used	Flammable Limits in Air % by Volume	LEL Lower	UEL Upper
N/AP	N/AP		N/AP	N/AP
Auto-Ignition Temperature:	Extinguisher Media:			
N/AP	Water fog.			
Special Fire Fighting Procedures:				
N/AP				
Unusual Fire and Explosion Hazards:				
N/AP				

Section 6 - Accidental Release Measures

Steps to be Taken in Case Material is Released or Spilled:

Mop up

Waste Disposal Methods (Consult federal, state, and local regulations):

Dispose of in accordance with local, state, and federal regulations

Section 7 - Special Precautions, Handling, and Storage

Precautions to be Taken in Handling and Storage:

Store in cool dry area - check containers for leaks

Other Precautions:

N/A

Section 8 - Exposure Controls and Personal Protection

Respiratory Protection (Specify Type):

Not necessary

Ventilation:	Local Exhaust:	Mechanical (General):	Special:	Other:
	X			

Protective Gloves:

Rubber gloves

Eye Protection:

Splashproof safety goggles

Other Protective Clothing or Equipment:

Work clothes

Work/Hygienic Practices:

Wash after use and before eating, drinking, or smoking

Section 9 - Physical & Chemical Properties

Boiling Point:	Specific Gravity (H2O):	Vapor Pressure (mm Hg);	Vapor Density (Air = 1):	
212°F	1 ± 0.5	N/A	1.0	
Solubility in Water :	Reactivity in Water:	pH: (as is)	pH:(3:1)	
Complete	Nil	8.5 ± 0.50	8.0	
Appearance and Odor:	Melting Point:	VOC CONTENT (AS IS):	VOC CONTENT(3:1)	
Amber /Yellow liquid with citrus odor	N/AP	.65 LB/GAL	0.16 LB/GAL	

Section 10 - Stability and Reactivity

Stability:	Unstable	Stable	Conditions to Avoid:
		X	None known
Incompatibility (Materials to Avoid):			
None known			
Hazardous Decomposition Products:			
None known			
Hazardous Polymerization:	May Occur	Will Not Occur	Conditions to Avoid:
		X	None known

Section 11 – Toxicological Information

There are no toxicological studies on **Environmental Ink Remover**. Studies on the components of **Environmental Ink Remover** have shown for:

- D-Limonene:
- A significant increase in kidney damage in male rats.
 - Evidence of kidney associated carcinogenic activity in male rats.
 - No evidence of carcinogenic activity in dosed female rats.
 - No evidence of carcinogenic activity in male or female dosed rats.
 - A reduction in occurrence of mammary gland tumors in highly dosed female rats when compared to untreated female rats.
 - A significant reduction in the occurrence of pituitary tumors in dosed female mice when compared to untreated female mice.
 - A mild toxic response was demonstrated in the liver of highly dosed mice.
 - No kidney damage in primates.

The kidney damage in male rats was due to a reaction of D-Limonene with the protein alpha-2u-globulin, a protein not found in humans. It is unlikely, therefore, that human health is jeopardized by long-term exposure to moderate levels of D-Limonene. Therefore, it is highly unlikely that **Environmental Ink Remover** will have toxicological effects.

Section 12 – Ecological Information

The components of **Environmental Ink Remover** are readily biodegradable.

Section 13 – Disposal Consideration

Boiling Point:

Specific Gravity (H₂O):

Vapor Pressure (mm Hg):

Vapor Density (Air = 1):

Dispose of in accordance with federal, state, and local regulations. When deciding how to dispose of waste after cleaning, it may be more of a concern to take into account the components of the soil being cleaned.

Section 14 – Transport Information

D.O.T.: Not Regulated

Section 15 - Regulations

SARA 313 : This product contains no chemical subject to SARA Title III Section 313 supplier notification requirements.

SARA HAZARD CATEGORY: Irritant

Toxic Substance Control Act (TSCA): All ingredients are on the TSCA Inventory.

OSHA HAZARD COMMUNICATION STANDARD: (29 CFR 1910.1200) Irritant

Canadian Regulations: N/A
