

## Material Safety Data Sheet

May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. Standard must be consulted for specific requirements.

## U.S. Department of Labor

Occupational Safety and Health  
Administration  
(Non-Mandatory Form)  
Form Approved  
OMB No. 1218-0072



IDENTITY: <i>TC-1</i>	Product Description: Water based cleaner and solvent
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### Section I

Manufacturer's Name: Emco Industries Inc.	Emergency Telephone Number: 800.424.9300
Address: 3800 Oceanic Dr. Suite 109	Telephone Number for Information: 760.721.3654
City, State: Oceanside, CA	Date Prepared: April 12, 2009
Postal Code: 92056	Preparer:

### Section II - Hazardous Ingredients/Identity Information

Hazardous Components: d-Limonene 2-butoxyethanol	OSHA PEL-TWS N.e. 50ppm	ACGIH TLV-TWA, TLA: N.e., N.e. 25ppm (skin), N.o.	CAS Number: 5989-27-5 111-76-2	%.: --
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### Section III - Physical/Chemical Characteristics

Boiling Point/Freezing Point:	196F/32F	Specific Gravity (H <sub>2</sub> O = 1)	0.98
Vapor Pressure (mm Hg)	N.o.	Melting Point	None
Vapor Density (AIR = 1)	>1	Evaporation Rate (Butyl Acetate = 1)	<1
Solubility in Water Completely soluble in water.		pH: 8.5	
Appearance and Odor: Thin opaque liquid with strong citrus odor.		Physical State: Liquid	

## Section IV - Fire and Explosion Hazard Data

Flash Point (Method Used) N.D. @ 212F°	Flammable Limits: No, this product is classified combustible only. (29CFR 1910.1200)	LEL: N.e.	UEL: N.e
Special Fire Fighting Procedures: Use water spray to cool containers below the flash point or to disperse vapor. Fire crews should wear self-contained breathing apparatus.			
Means of Extinction: Use dry chemical, carbon dioxide, or alcohol foam			
Auto-ignition Temperature: 711F°	Hazardous Combustion Products: Oxides of Carbon		
Sensitivity to Impact: No	Sensitivity to Static Discharge: No		

## Section V - Reactivity Data

Incompatibility ( <i>Materials to Avoid</i> ): <i>Avoid strong oxidizing agents due to increased risk of fire or explosion.</i>
Hazardous Decomposition or Byproducts: None Reported
Chemical Stability: Normally stable. May oxidize under prolonged exposure to air. Hazardous polymerization does not occur.
Reactivity, and under what conditions? Not reactive under normal conditions.

## Section VI - Health Hazard Data

Route(s) of Entry:	Inhalation? Major	Skin? Major	Ingestion? Minor	Eye? Major
Effects of Acute Exposure to Product: Irritation can result from liquid, mist or vapor contact respiratory tract, eyes and skin. Absorption through skin or inhalation of vapor at normal temperatures poses minimal hazard. Ingestion of large amounts will cause diarrhea. Aspiration can damage lungs and cause death.				
Effects of Chronic Exposure to Product: Prolonged or repeated exposure can de-fat skin and lead to dermatitis. May cause allergic skin response in some persons. Intense long-term exposure may cause kidney problems.				
Exposure Limits: ACGHI-TLV-TWA Is 25 ppm for 2-but ox ethanol. "skin" notation	Irritancy of Product: As above.	Sensitization to Product: d-Limonene is sensitizer	Carcinogenicity: Not reported by OSHA, IARC, NTP, ACGIH	
Teratogenicity: Not Reported.	Reproductive toxicity: Not Reported.	Mutagenicity: Not Reported.	Synergistic Products: Not Reported.	

## Section VII - Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled:	
Soak up small spills with absorbent materials. Prevent run-off from reaching sewers, storm drains or natural water bodies. No Reportable Quantity according to 40 CFR 302.	
Waste Disposal Method:	
Dispose of according to federal, state, and local laws.	
Precautions to Be taken in Handling and Storing:	
Avoid generating mists. Keep containers closed when not in use. Do not freeze. Ground containers to avoid static accumulation. Empty containers may contain a hazardous residue. Store in cool, well ventilated area away from incompatible materials and ignition sources.	
Engineering Controls (Specify, ventilation enclosed process):	
Mechanical ventilation, both dilution and local exhaust may be utilized to keep exposure below the exposure limit. Extra ventilation should be provided in enclosed spaces and in hot weather.	
Special Shipping information: Combustible Liquid (29CFR 1910.1200)	TDG Un Number: Non-regulated as packaged USA D.O.T (16CFR 172.101)

## Section VIII - Control Measures and First Aid

Inhalation: Remove victim to fresh air. If breathing has stopped, a trained person should perform artificial respiration. Seek medical care.	
Ingestion: Do not induce vomiting. If conscious, give victim cold water. Never give anything by mouth to an unconscious person. Seek medical attention.	
Eye Contact: Flush eye for 15 minutes with water while retracting eyelids. Seek medical attention.	
Skin contact: Remove contaminated clothing. Wash affected area with soap and water. Launder clothing before reuse. Seek medical attention if irritation persists.	
Protective Gloves: Neoprene, Nitrile, Butyl rubber or Polyvinyl alcohol are recommended.	Eye Protection: Chemical safety goggles recommended. A face shield may be warranted in some applications.
Respiratory Protection: No respiratory protection is required under normal conditions of use. Consider the use of respiratory protection in confined spaces or at elevated temperatures.	
Other Protective Clothing or Equipment: Coveralls or other suitable protective clothing. Impervious boots using same as for gloves.	
Other: Emergency eye-wash and shower should be available.	

\* U.S.G.P.O.: 1986 - 491 - 529/45775