

# MATERIAL SAFETY DATA SHEET

(COMPLIES WITH 29CFR 1910.1200)

<b>SECTION I - CHEMICAL PRODUCT &amp; COMPANY IDENTIFICATION</b>		
Identity (As Used on Label and List): Tornado Degreaser (TOR-110)		
Product Class: Water-based Degreaser		
Emergency Telephone Number: 800-535-5053		
Telephone Number for Information: 763-509-7937		
Manufacturer's Name and Address: Ver-tech Labs 6801 Bleck Drive Rockford MN 55373		
<b>SECTION II - COMPOSITION/INFORMATION ON INGREDIENTS</b>		
Hazardous Components (Specific Chemical Identity):		
Chemical	Common Name(s)	%
A	2-Butoxy ethanol CAS #111-76-2	5 - 15
B	Potassium hydroxide CAS #1310-58-3	3 - 7
C	Dodecylbenzene Sulfonic Acid CAS #27178-87-0	1 - 5
D	Triethanolamine CAS #0102-71-6	1 - 5
E	Water CAS #7732-18-5	60 - 100
<b>SECTION III - HAZARDS IDENTIFICATION</b>		
Emergency Overview		
Appearance and Odor: Yellow liquid, "butyl" citrus aroma.		
Primary Hazards: Corrosive		
Potential Health Hazards		
Route(s) of Entry: Skin Absorption: X Ingestion: X Inhalation: X		
Eye: May cause chemical burns on contact.		
Skin: May cause chemical burns on contact.		
Ingestion: May be harmful if swallowed.		
Inhalation: Overexposure to butyl vapors may be harmful.		
Signs and Symptoms of Exposure: Eye Contact: Possible burning, tearing, redness and corneal damage. Skin Contact: Possible slippery feeling, redness, swelling and burns. Symptoms may be delayed. Inhalation: Overexposure to 2-Butoxy ethanol (butyl) vapors may cause central nervous system effects including drowsiness, headache, nausea and dizziness.		
Carcinogenicity: NTP? No IARC Monographs? No		
OSHA Regulated? No		
Target Organ (s): Eyes, skin, liver, kidneys, lymphoid system, respiratory system and blood.		
Medical Conditions Generally Aggravated by Exposure: N. Av.		
Health Hazards, Chronic: Overexposure to 2-Butoxy ethanol may cause damage to one or more of the target organs listed above.		
<b>SECTION IV - FIRST AID MEASURES</b>		
Emergency and First Aid Procedures:		
For Eye Contact: Immediately flush eyes with sanitary eye wash solution or running water for at least 15 minutes. Obtain medical attention. Continue to flush eyes until medical attention arrives. If Swallowed: Do not induce vomiting. Drink two glasses of water, follow with orange juice and immediately call a physician. For Skin Contact: Flush thoroughly with cool water. Remove and wash contaminated clothing before reuse. Never give anything by mouth to an unconscious person. For Overexposure to Vapors: Remove victim to fresh air, keep warm, quiet and contact a physician.		
Sources Used: Raw material data, general toxicology from the trade for similar products.		
<b>SECTION V - FIRE FIGHTING MEASURES</b>		
Flammability: No Autoignition Temperature: N. Av.		
Flash Point (method used): None		
Flammable Limits: N. Av. LEL UEL		
Extinguishing Media N. Av.		
Water?	Foam?	Water Fog?
Alcohol Foam?	CO <sub>2</sub> ?	Dry Chemical?
Vaporizing Liquid?	Other?	
Special Fire Fighting Procedures: N. Av.		
Unusual Fire and Explosion Hazards: N. Av.		
TDG Flammability Classification: Non-flammable		
Sensitivity to Mechanical Impact: None		
Sensitivity to Static Discharge: None		
<b>SECTION VI - ACCIDENTAL RELEASE MEASURES</b>		
Steps to be Taken in Case Material is Released or Spilled:		
Dike and contain spill with inert material (sand, earth, etc). Collect spill with mop, absorbent material (example: floor-dri) or vacuum. Thoroughly rinse affected area with water.		
<b>SECTION VII - HANDLING AND STORAGE</b>		
Precautions to be Taken in Handling and Storing:		
Normal care in handling and storage.		
Other Precautions: Keep out of reach of children. Keep from freezing.		

<b>SECTION VIII - EXPOSURE CONTROLS/PERSONAL PROTECTION</b>					
Respiratory Protection (Specify Types): Not required where ventilation is sufficient to maintain 2-Butoxy ethanol vapor level below listed TLV. Use NIOSH/MSHA approved organic vapor respirator in areas where vapor level exceeds TLV.					
Ventilation: Local Exhaust: Not required		Special: Not required			
Mechanical (General): As required to keep vapor levels below TLV & PEL, listed in Section XI.		Other: Not required			
Protective Gloves: Natural rubber or synthetic.					
Eye Protection: Approved safety goggles or shield. Footwear: Rubber footwear.					
Other Protective Clothing or Equipment: Not required					
Work/Hygienic Practices: Do not contaminate food or beverages with cleaning chemicals.					
<b>SECTION IX - PHYSICAL/CHEMICAL CHARACTERISTICS</b>					
Boiling Point: Approximately 212°F		pH: 13 - 14			
Specific Gravity (H <sub>2</sub> O) = 1: 1.05		% Volatile: 75 - 98			
Vapor Density (Air = 1): > 1		Odor Threshold: N. Av.			
Evaporation Rate (Butyl Acetate = 1): N. Av.		Oil/Water Distribution			
Solubility in Water: Complete		Coefficient: N. Av.			
Vapor Pressure (MM HG): N. Av.		Melting Point: N. Av.			
<b>SECTION X - STABILITY AND REACTIVITY</b>					
Stability: Unstable: Stable: X					
Conditions to Avoid: N. Av.					
Incompatibility (materials to avoid): N. Av.					
Hazardous Decomposition or By-products: N. Av.					
Hazardous Polymerization: May occur:		Will not occur: X			
Conditions to Avoid: N. Av.					
<b>SECTION XI - TOXICOLOGICAL INFORMATION</b>					
Chemical	OSHA PEL	ACGIH TLV	Recom.	LD50	LC50
A	25 ppm (skin)	25 ppm (skin)	25 ppm (skin)	1.48 g/kg (rat, oral)	N. Av.
B	C2 mg/M <sub>3</sub>	C2 mg/M <sub>3</sub>	N. Av.	205 mg/kg (rat, oral)	N. Av.
C	None	None	N. Av.	650 mg/kg (rat, oral)	510mg/m <sup>3</sup> /2h (rat, oral)
D	3 ppm	5mg/M <sub>3</sub>	N. Av.	N. Av.	N. Av.
E	None	None	N. Av.	N. Av.	N. Av.
Teratogen, Mutagen, Reproductive Toxin Status: No data with known relevance to humans.					
Toxicologically Synergistic Products: N. Av.					
<b>SECTION XII - ECOLOGICAL INFORMATION</b>					
Ecotoxicological Information: N. Av.					
Chemical Fate Information: N. Av.					
<b>SECTION XIII - DISPOSAL CONSIDERATIONS</b>					
Waste Disposal Method:					
Dispose of spilled material in accordance with local, state and federal regulations. Waste from normal cleaning procedures may be sewer, depending on the materials and/or contaminants being cleaned as well as state, federal and local sewer commission regulations.					
RCRA Hazard Class: D002, characteristic corrosive.					
<b>SECTION XIV - TRANSPORT INFORMATION</b>					
Shipping Classification: corrosive liquid, basic inorganic, N.O.S. (Containing potassium hydroxide), class 8					
UN Number: 3266					
Packing Group: II					
<b>SECTION XV - PREPARATION DATA</b>					
Prepared By: Health and Safety Department					
Telephone Number: 763-509-7937					
Date: 1-18-2007					
<b>SECTION XVI - REGULATORY INFORMATION</b>					
US Federal Regulations					
TSCA Status: All ingredients listed.					
CERCLA Reportable Quality: N. Av.					
SARA Title III					
Section 302 Extremely Hazardous Chemicals: None					
Section 311/312 Hazard Category: Immediate health, chronic health					
Section 313 Toxic Chemicals: Glycol ether					
<b>SECTION XVII - OTHER INFORMATION</b>					
None					
N. Av. - Not Applicable; N. Av. - Not Available					
<b>NFPA SYSTEM</b>					
2 A. Health Hazard		0 A. Fire Hazard		0 A. Reactivity Hazard	

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