




Tough Green vs. Simple Green[®]

**Concentrated
Enviro-Cleaner & Degreaser**

**Concentrated Cleaner /
Degreaser / Deodorizer**

<u>Properties</u>	<u>Tough Green</u> 	<u>Simple Green[®]</u>
pH	7 - 8	9 - 10
Butyl*	None	< 6.0% **
Color	Clear/Sl. Hazy Green	Clear Green
Fragrance	Citrus Floral	Butyl / Fresh
Non Splash Formula	Yes	No
Foamability	Low - Moderate	Low - Moderate
Dilutions***		
Light Duty	1:128 to 1:64 (1 - 2 oz / gallon)	1:50 to 1:30 (2.6 - 4.2 oz / gallon)
Moderate Duty / All Purpose	1:32 - 1:20 (4 - 6 oz / gal.)	1:10 (12.8 oz / gal.)
Heavy Duty	1:13 - 1:8 (10 - 16 oz / gal.)	Full Strength
Proven Environmentally Friendly****	Yes	No
Biodegradable	Yes	Yes
% VOC (Concentrate)	5%	< 6%
% VOC (RTU, Heavy Duty Dilution)	0.625%	< 6%
Contains Phosphates	No	No

* Butyl, also known as "2-Butoxyethanol" or "Butyl Cellosolve™" or "Glycol Ether EB", CAS #111-76-2, is a type of glycol ether that is classified by the US Environmental Protection Agency (EPA) as a SARA Title III, Section 313 Toxic Chemical. Organizations that certify products as "Green" or "Environmentally Friendly" prohibit butyl (2-Butoxyethanol) due to toxicity concerns.

Tough Green uses only propylene based glycol ethers which are **NOT** classified by the EPA as an SARA Title III Section 313 Toxic Chemical.

** As reported on Material Safety Data Sheet for Simple Green

*** As reported on product labels.

**** This product has been formulated in partnership with the EPA's Design for the Environment Program.



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Simple Green data obtained from the publicly available website June 2006

WARNING & DISCLAIMER: Results may vary. Multi-Clean chemicals are to be used only by appropriately trained personnel. IMPROPER USE POSES RISK OF PHYSICAL INJURY OR PROPERTY DAMAGE. The suitability of and proper application of this product is the responsibility of the applier. The manufacturer disclaims all warranties, express and implied, including any warranties of MERCHANTABILITY AND FITNESS OF PURPOSE. The manufacturer's liability is limited to replacement of or reimbursement for any product proved defective. No person has authority to waive these disclaimers or make any representations or warranties on behalf of the manufacturer, except in writing signed by the manufacturer.

MATERIAL SAFETY DATA SHEET

(COMPLIES WITH 29CFR 1910.1200)

SECTION I - CHEMICAL PRODUCT & COMPANY IDENTIFICATION
Identity (As Used on Label and List): Tough Green Enviro-Cleaner & Degreaser
Product Class: Neutral pH Cleaner & Degreaser
Emergency Telephone Number: 800-255-3924
Telephone Number for Information: 651-481-1900
Manufacturer's Name and Address:
Multi-Clean®
600 Cardigan Road
Shoreview, MN 55126

SECTION II - COMPOSITION/INFORMATION ON INGREDIENTS
Hazardous Components (Specific Chemical Identity):

Chemical	Common Name(s)	%
A	Ethoxylated Alcohol CAS #34398-01-1	1 - 5
B	Propylene Glycol n-Butyl Ether CAS #5131-66-8	1 - 5
C	Dipropylene Glycol Methyl Ether CAS #34590-94-8	1 - 5
D	Water CAS #7732-18-5	60 - 100

SECTION III - HAZARDS IDENTIFICATION
Emergency Overview
Appearance and Odor: Hazy green, slightly viscous liquid. Floral/citrus fragrance.
Primary Hazards: Irritant
Potential Health Hazards
Route(s) of Entry: Skin Absorption: X Ingestion: X Inhalation: X
Eye: May cause irritation on contact.
Skin: May cause irritation on contact.
Ingestion: May be harmful if swallowed.
Inhalation: Overexposure to vapors may be harmful.
Signs and Symptoms of Exposure: Irritation on direct contact.
Carcinogenicity: NTP? No IARC Monographs? No
OSHA Regulated? No
Target Organ (s): Skin, eyes, respiratory system. Gross overexposure to vapors may affect central nervous system, liver and kidneys.
Medical Conditions Generally Aggravated by Exposure: N. Av.
Health Hazards, Chronic: Overexposure to Dipropylene Glycol Monomethyl Ether or its components has apparently been found to cause the following effects in laboratory animals: Mild, reversible liver effects.

SECTION IV - FIRST AID MEASURES
Emergency and First Aid Procedures:
If Swallowed: Do not induce vomiting. Drink water in large amounts and call a physician immediately. Never give anything by mouth to an unconscious person. **Eye Contact:** Flush eyes with running water for at least 15 minutes. If irritation persists, obtain medical attention. **Skin Contact:** Flush thoroughly with cool water. Remove and wash contaminated clothing before reuse. **Inhalation:** If ill effects occur from breathing vapors, remove victim to fresh air, keep warm and quiet, contact physician.
Sources Used: Raw material data general toxicology from the trade for similar products.

SECTION V - FIRE FIGHTING MEASURES
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? **CO₂?** **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

SECTION VI - ACCIDENTAL RELEASE MEASURES
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.

SECTION VII - HANDLING AND STORAGE
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.

SECTION VIII - EXPOSURE CONTROLS/PERSONAL PROTECTION
Respiratory Protection (Specify Types): Not required. Dust/mist mask recommended if working in heavy cleaner mists or spray.
Ventilation: **Local Exhaust:** Not required **Special:** Not required
Mechanical (General): Ventilate 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 glasses. **Footwear:** Not required
Other Protective Clothing or Equipment: Not required
Work/Hygienic Practices: Do not contaminate food or beverages with cleaning chemicals.

SECTION IX - PHYSICAL/CHEMICAL CHARACTERISTICS
Boiling Point: Approximately 212°F (100°C) **pH:** 7.0 - 8.0
Specific Gravity (H₂O) = 1: 1.00 **% Volatile:** > 85
Vapor Density (Air = 1): N. Av. **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. Ap.

SECTION X - STABILITY AND REACTIVITY
Stability: **Unstable:** **Stable:** X
Conditions to Avoid: N. Ap.
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. Ap.

SECTION XI - TOXICOLOGICAL INFORMATION

Chemical	OSHA PEL	ACGIH TLV	Recom.	LD50	LC50
A	N. Av.	N. Av.	N. Av.	0.7-1.7 gm/kg (rat, oral)	N. Av.
B	None	None	N. Av.	3,300 mg/kg (rat, oral)	N. Av.
C	100 ppm (skin)	100 ppm (skin)	N. Av.	5.6 gm/kg (rat, oral)	>33,000 ppm (rat)
D	None	None	N. Av.	N. Av.	N. Av.

Teratogen, Mutagen, Reproductive Toxin Status: N. Av.
Toxicologically Synergistic Products: N. Av.

SECTION XII - ECOLOGICAL INFORMATION
Ecotoxicological Information: N. Av.
Chemical Fate Information: N. Av.

SECTION XIII - DISPOSAL CONSIDERATIONS
Waste Disposal Method:
Dispose of spilled material in accordance with local, state and federal regulations. Waste from normal cleaning procedures may be sewerred, depending on the materials and/or contaminants being cleaned as well as state, federal and local sewer commission regulations.
RCRA Hazard Class: None

SECTION XIV - TRANSPORT INFORMATION
Shipping Classification: Compound, cleaning liquid, N.O.I.
UN Number: N. Ap.
Packing Group: N. Ap.

SECTION XV - PREPARATION DATA
Prepared By: Mike Elms
Telephone Number: 651-481-1900
Date: 10/06

SECTION XVI - REGULATORY INFORMATION
US Federal Regulations
TSCA Status: All ingredients listed.
CERCLA Reportable Quality: None
SARA Title III
Section 302 Extremely Hazardous Chemicals: None
Section 311/312 Hazard Category: Immediate health, chronic health
Section 313 Toxic Chemicals: None
State Regulations
NOTICE STATE OF CALIFORNIA
Warning: This product may contain chemicals known to the State of California to cause cancer or reproductive defects as trace impurities in the standard industrial materials used in the manufacture of this product.
International Regulations
WHMIS Controlled Product Hazard Class: N/A

SECTION XVII - OTHER INFORMATION
None
N. Ap. - Not Applicable; N. Av. - Not Available

NFPA SYSTEM
1 A. Health Hazard 0 A. Fire Hazard 0 A. Reactivity Hazard

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