



# Material Safety Data Sheet

This MSDS is prepared in accordance with OSHA 29 CFR 1910.1200

	CLASS E: Corrosive liquid.	Class: Flammable liquid having a flash point lower than 37.8°C (100°F). Class: Corrosive material
WHMIS (Pictograms)	WHMIS (Classification)	HCS

## Section 1. Chemical Product and Company Identification

Product Name/ Trade name	<b>Top Flite Plus</b>	Code	059
Synonym	All Purpose Cleaner	CAS #	Mixture.
Chemical Family	Not available.	Validation Date	6/27/2006
Chemical Formula	Not applicable.	Print Date	6/27/2006
Manufacturer/ Supplier	Betco Corporation 1001 Brown Avenue Toledo, Ohio 43607 (419) 241-2156	In Case of Emergency	Chemtrec (800) 424-9300
TSCA	TSCA Inventory: All components listed or are exempt from listing.		
DSL/ NDSL	All components listed unless noted elsewhere on this MSDS		
<b>Protective Clothing</b>			

## Section 2. Composition and Information on Ingredients

Name	CAS #	% by Weight	Exposure Limits	LC <sub>50</sub> /LD <sub>50</sub>
2-Butoxyethanol	111-76-2	5-10	TWA: 20 (ppm) from ACGIH (TLV) [United States] TWA: 50 (ppm) from OSHA (PEL) [United States]	ORAL (LD50): Acute: 1746 mg/kg [Rat].
Liquified Petroleum Gas	68476-85-7	0-5	TWA: 1000 (ppm) TWA: 1000 (ppm) from OSHA (PEL) [United States]	Not available.
Tetrasodium salt of ethylenediaminetetraacetic acid	64-02-8	0-5	Not available.	ORAL (LD50): Acute: 3030 mg/kg [Rat].
Sodium Metasilicate	6834-92-0	0-5	Not available.	Not available.
Amphoteric Surfactant	68298-20-4	0-5	Not available.	Not available.
Coconut Diethanolamide	8051-30-7	0-5	Not available.	Not available.
Monoethanolamine	141-43-5	0-5	TWA: 3 (ppm) TWA: 6 (ppm) from OSHA (PEL) [United States] STEL: 6 (ppm)	Not available.
Nonionic Surfactant	9016-45-9	0-5	Not available.	Not available.

### Section 3. Hazards Identification

<b>Potential Acute Health Effects</b>	Extremely hazardous in case of ingestion. Very hazardous in case of skin contact (corrosive, irritant), of eye contact (irritant), of inhalation. Slightly hazardous in case of inhalation (lung irritant). Non-sensitizer for skin. Non-permeator by skin. Non-sensitizer for lungs. Liquid or spray mist may produce tissue damage particularly on mucous membranes of eyes, mouth and respiratory tract. Skin contact may produce burns. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Severe over-exposure can result in death. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.
<b>Potential Chronic Health Effects</b>	The amount of tissue damage depends on length of contact. Severe over-exposure can produce lung damage, choking, unconsciousness or death.
<b>Carcinogenic Effects</b>	Not classified or listed by IARC, NTP, OSHA, EU and ACGIH.

### Section 4. First Aid Measures

<b>Eye Contact</b>	IMMEDIATELY flush eyes with running water for at least 15 minutes, keeping eyelids open. DO NOT use an eye ointment. Seek medical attention.
<b>Skin Contact</b>	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
<b>Inhalation</b>	Evacuate the victim to a safe area as soon as possible. Seek medical attention.
<b>Ingestion</b>	DO NOT induce vomiting. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.

### Section 5. Fire Fighting Measures

<b>Products of Combustion</b>	Not available.
<b>Fire Fighting Media and Instructions</b>	Use DRY chemicals, CO2, alcohol foam or water spray.
<b>Special Remarks on Fire Hazards</b>	No additional remark.
<b>Special Remarks on Explosion Hazards</b>	No additional remark.

### Section 6. Accidental Release Measures

<b>Small Spill and Leak</b>	Dilute with water and mop up, or absorb with an inert DRY material and place in an appropriate waste disposal container. If necessary: <b>Neutralize the residue with a dilute solution of acetic acid</b>
<b>Large Spill and Leak</b>	Corrosive liquid. Do not touch damaged container or spilled material. Absorb with an inert material and put the spilled material in an appropriate waste disposal.
<b>Personal Protection in Case of a Large Spill</b>	Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

### Section 7. Handling and Storage

<b>Precautions</b>	Keep locked up. Keep container dry. DO NOT ingest. Do not breathe gas, fumes, vapor or spray. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes.
<b>Incompatibility</b>	acids oxidizing agents
<b>Storage</b>	Keep out of the reach of children. Not for use or storage in or around the home.

## Section 8. Exposure Controls/Personal Protection

**Engineering Controls** Good general ventilation should be sufficient to control airborne levels.

### Personal Protection

**Eyes** Splash goggles.

**Body** Long Pants and Long Sleeves to avoid skin contact.

**Respiratory** A respirator is not needed under normal and intended conditions of product use.

**Hands** Gloves (impervious).

### Protective Clothing (Pictograms)



### Exposure Limits

#### 2-Butoxyethanol

TWA: 25 (ppm)

TWA: 50 (ppm) from OSHA (PEL)

#### Liquified Petroleum Gas

TWA: 1000 (ppm)

TWA: 1000 (ppm) from OSHA (PEL)

#### Monoethanolamine

TWA: 3 (ppm)

TWA: 6 (ppm) from OSHA (PEL)

STEL: 6 (ppm)

Consult local authorities for acceptable exposure limits.

## Section 9. Physical and Chemical Properties

**Physical State and Appearance** Liquid. (Spray Mist)

**Odor** Pleasant.

**Molecular Weight** Not applicable.

**Taste** Not available.

**pH** 12 to 13 [Basic.]

**Color** Colorless.

**Boiling/Condensation Point** Not available.

**Melting/Freezing Point** Not available.

**Critical Temperature** Not available.

**Instability Temperature** Not available.

**Specific Gravity** Not available.

**Vapor Pressure** 2068.4 mm of Hg (@ 20°C)

**Vapor Density** >1 (Air = 1)

**Volatility** 95% (v/v).

**VOC** 20 (%)

**Evaporation Rate** <1 compared to Water

**Dispersion Properties** See solubility in water.

**Solubility** Easily soluble in cold water, hot water.

**The Product is:** Flammable.

<b>Auto-ignition Temperature</b>	Not available.
<b>Flash Points</b>	CLOSED CUP: Between -18°C (0°F) and 23°C (73°F). (Tagliabue.).
<b>Flammable Limits</b>	LOWER: 1.8% UPPER: <13%
<b>Fire Hazards in Presence of Various Substances</b>	Extremely flammable in presence of open flames and sparks. Highly flammable in presence of heat. Slightly flammable to flammable in presence of shocks. Non-flammable in presence of oxidizing materials.
<b>Explosion Hazards in Presence of Various Substances</b>	Explosive in presence of open flames and sparks, of heat.

### **Section 10. Stability and Reactivity Data**

<b>Stability</b>	The product is stable.
<b>Incompatibility with Various Substances</b>	acids oxidizing agents
<b>Hazardous Decomposition Products</b>	Not available.

### **Section 11. Toxicological Information**

<b>Routes of Entry</b>	Absorbed through skin. Eye contact. Inhalation. Ingestion.
<b>Toxicity to Animals</b>	<b>WARNING: THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE BASIS OF A 4-HOUR EXPOSURE.</b> Acute oral toxicity (LD50): 1746 mg/kg [Rat]. (2-Butoxyethanol). Acute toxicity of the gas (LC50): 926 ppm 4 hour(s) [Mouse]. (2-Butoxyethanol).
<b>Acute Effects on Humans</b>	<p><i>Eyes</i> Very hazardous in case of eye contact (irritant). Corrosive to eyes on contact.</p> <p><i>Skin</i> Very hazardous in case of skin contact (corrosive, irritant). Skin contact may produce burns.</p> <p><i>Inhalation</i> Liquid or spray mist may produce tissue damage particularly on mucous membranes of eyes, mouth and respiratory tract.</p> <p><i>Ingestion</i> Extremely hazardous in case of ingestion. May be fatal if swallowed. May cause burns to mouth, throat, and stomach.</p>
<b>Chronic Effects on Humans</b>	The amount of tissue damage depends on length of contact. Severe over-exposure can produce lung damage, choking, unconsciousness or death.
<b>Special Remarks on Toxicity to Animals</b>	No additional remark.
<b>Special Remarks on Chronic Effects on Humans</b>	No additional remark.

### **Section 12. Ecological Information**

<b>Ecotoxicity</b>	Not available.
<b>BOD5 and COD</b>	Not available.
<b>Products of Biodegradation</b>	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
<b>Toxicity of the Products of Biodegradation</b>	Not available.
<b>Special Remarks on the Products of Biodegradation</b>	No additional remark.

### Section 13. Disposal Considerations

Waste Information	Waste must be disposed of in accordance with federal, state and local environmental control regulations.
Waste Stream	Not available.

### Section 14. Transport Information

DOT (U.S.A)  
(Pictograms)



TDG Classification Not a TDG controlled material.

PIN UN, Proper Shipping Name, PG Not applicable.

Maritime Transportation Not available.

Special Provisions for Transport Not available.

### Section 15. Other Regulatory Information and Pictograms

WHMIS (Classification) CLASS E: Corrosive liquid.



Regulatory Lists No products were found.

Other Regulations OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

Other Classifications  
HCS (U.S.A.) Class: Flammable liquid having a flash point lower than 37.8°C (100°F).  
Class: Corrosive material

USA Regulatory Lists

SARA 311/312 MSDS distribution - chemical inventory - hazard identification: 2-Butoxyethanol: immediate health hazard, delayed health hazard; Liquified Petroleum Gas: fire  
SARA 313 toxic chemical notification and release reporting: 2-Butoxyethanol

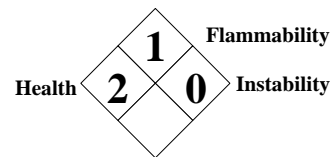
DSD (EEC)

International Regulations Lists No products were found.

Hazardous Material Information System (U.S.A.)

Health	2
Flammability	1
Physical Hazard	0

National Fire Protection Association (U.S.A.)



The Hazard Ranking systems presented on this MSDS provide only a quick reference for hazard information. The ENTIRE MSDS must be consulted to determine any specific hazards, First Aid measures, and PPE associated with this product.

**Section 16. Other Information**

Validated by CRushton on 6/27/2006.

Verified by CRushton.

Printed 6/27/2006.

**Information Contact Betco Corporation**  
1001 Brown Avenue  
Toledo, Ohio 43607

Notice to Reader:

*To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.*

*Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.*

Validated on 6/27/2006.

**Top Flite Plus**

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