Material Safety Data Sheet

This MSDS is prepared in accordance with OSHA 29 CFR 1910.1200

	WHMIS Class E: Corrosive solid. WHMIS Class D-2: Material causing other toxic effects.	Corrosive Material
WHMIS (Pictograms)	**WHMIS (Classification)**	**HCS**

Section 1. Chemical Product and Company Identification

Product Name/ Trade name	**Speedex Concentrate**
Synonym	Not available.
Chemical Family	Not available.
Chemical Formula	Not applicable.
Manufacturer/ Supplier	Betco Corporation 1001 Brown Avenue Toledo, Ohio 43607 (800) 333-2156
TSCA	**TSCA Inventory: All components listed or are exempt from listing.**
DSL/ NDSL	**All components listed unless noted elsewhere on this MSDS**

Code	528
CAS #	Mixture.
Validation Date	**8/31/2006**
Print Date	10/23/2006
In Case of Emergency	CHEMTREC (800) 424-9300

Protective Clothing

Section 2. Composition and Information on Ingredients

Name	CAS #	% by Weight	Exposure Limits	LC_{50}/LD_{50}
Monoethanolamine	141-43-5	30 - 40	Not available.	Not available.
2-Butoxyethanol	111-76-2	15 - 20	**ACGIH (United States).** TWA: 20 ppm **OSHA (United States).** TWA: 50 ppm	ORAL (LD50): Acute: 1746 mg/kg [Rat].
Nonionic Surfactant	9016-45-9	5 - 10	Not available.	Not available.
Gluconic Acid	526-95-4	1 - 5	Not available.	Not available.

Section 3. Hazards Identification

Potential Acute Health Effects

Extremely hazardous in case of skin contact (corrosive, irritant), of eye contact (irritant, corrosive). Very hazardous in case of ingestion, . 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. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

Potential Chronic Health Effects

Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs. Repeated or prolonged exposure to the substance can produce blood disorders. Repeated or prolonged exposure to the substance can produce kidney damage. Repeated or prolonged exposure to the substance can produce liver damage. Repeated or prolonged exposure to the substance can produce reproductive system damage.

Carcinogenic Effects

Not classified or listed by IARC, NTP, OSHA, EU and ACGIH.

Section 4. First Aid Measures

Eye Contact	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.
Skin Contact	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
Ingestion	If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

Section 5. Fire Fighting Measures

Products of Combustion	These products are carbon oxides (CO, CO_2), nitrogen oxides (NO, NO_2...).
Fire Fighting Media and Instructions	SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.
Special Remarks on Fire Hazards	Not available.
Special Remarks on Explosion Hazards	Not available.

Section 6. Accidental Release Measures

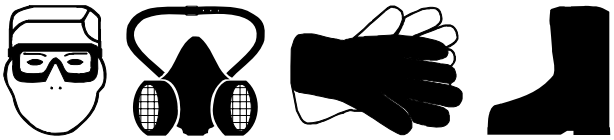
Small Spill and Leak	Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.
Large Spill and Leak	Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not get water inside container. Do not touch spilled material. Use water spray curtain to divert vapor drift. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all ignition sources. Call for assistance on disposal.
Personal Protection in Case of a Large Spill	Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product.

Section 7. Handling and Storage

Precautions	Keep locked up. Keep container dry. Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/ vapor/spray. Never add water to this product. 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.
Incompatibility	Not available.
Storage	Keep container tightly closed. Keep container in a cool, well-ventilated area.

Section 8. Exposure Controls/Personal Protection

Engineering Controls	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are proximal to the work-station location.
Personal Protection	
Eyes	Face shield.
Body	Full suit.
Respiratory	

	Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate.
Hands	Gloves.
Protective Clothing (Pictograms)	
Exposure Limits	2-butoxyethanol ACGIH TWA 20 PPM OSHA TWA 50 PPM Ammonium Hydroxide OSHA TWA 50 PPM OSHA STEL 35 PPM

Section 9. Physical and Chemical Properties

Physical State and Appearance	Liquid.
Molecular Weight	Not applicable.
pH	Not available.

Odor	Characteristic.
Taste	Not available.
Color	Green.

Boiling/Condensation Point	101.11°C (214°F)
Melting/Freezing Point	May start to solidify at 0°C (32°F) based on data for: Water.
Critical Temperature	Not available.
Instability Temperature	Not available.
Specific Gravity	0.997 (Water = 1)
Vapor Pressure	The highest known value is 0.001 kPa (0.01 mm Hg) (at 20°C) (nonylphenol polyethelylene glycol ether).
Vapor Density	The highest known value is >1 (Air = 1) (nonylphenol polyethelylene glycol ether).
Volatility	>70% (w/w).
VOC	36 (%)
Evaporation Rate	<1 compared to Butyl acetate.
Dispersion Properties	See solubility in water, methanol, acetone.
Solubility	Easily soluble in methanol, acetone. Partially soluble in cold water, hot water.
The Product is:	May be combustible at high temperature.
Auto-ignition Temperature	Not available.
Flash Points	Closed cup: >98.889°C (210°F).
Flammable Limits	Not available.
Fire Hazards in Presence of Various Substances	Not available.

Explosion Hazards in Presence of Various Substances	Not available.

Section 10. Stability and Reactivity Data

Stability	The product is stable.
Incompatibility with Various Substances	Not available.
Hazardous Decomposition Products	Not available.

Section 11. Toxicological Information

Routes of Entry	Dermal contact. Eye contact. Inhalation. Ingestion.
Toxicity to Animals	Acute oral toxicity (LD50): 1746 mg/kg [Rat]. (2-Butoxyethanol). Acute toxicity of the gas (LC50): 700 ppm 7 hour(s) [Mouse]. (2-Butoxyethanol).
Acute Effects on Humans	
Eyes	Eye contact can result in corneal damage or blindness.Extremely hazardous in case of eye contact (irritant, corrosive).
Skin	Sensitization of the product: Not available. Extremely hazardous in case of skin contact (corrosive, irritant). Skin contact may produce burns. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.
Inhalation	Very hazardous in case of inhalation. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Over-exposure by inhalation may cause respiratory irritation. May be fatal if inhaled.
Ingestion	Very hazardous in case of ingestion. May be fatal if swallowed. May cause burns to mouth, throat and stomach.
Chronic Effects on Humans	Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs. Repeated or prolonged exposure to the substance can produce blood disorders. Repeated or prolonged exposure to the substance can produce kidney damage. Repeated or prolonged exposure to the substance can produce liver damage. Repeated or prolonged exposure to the substance can produce reproductive system damage.
Special Remarks on Toxicity to Animals	Not available.
Special Remarks on Chronic Effects on Humans	Not available.

Section 12. Ecological Information

Ecotoxicity	Not available.
BOD5 and COD	Not available.
Products of Biodegradation	These products are carbon oxides (CO, CO_2) and water, nitrogen oxides (NO, NO_2...).
Toxicity of the Products of Biodegradation	The products of degradation are less toxic than the product itself.
Special Remarks on the Products of Biodegradation	Not available.

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 8

PIN UN, Proper Shipping Name, PG Shipping name: Corrosive liquids, N.O.S. UNNA: UN1760 PG: II

Maritime Transportation Not available.

Special Provisions for Transport Not available.

Section 15. Other Regulatory Information and Pictograms

WHMIS (Classification) WHMIS Class E: Corrosive solid. WHMIS Class D-2: Material causing other toxic effects.

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.) Corrosive Material

USA Regulatory Lists

WARNING: This product contains chemical(s) known to the state of California to cause cancer, birth defects or other reproductive harm: Formaldehyde

WARNING: This product contains chemical(s) known to the state of California to cause reproductive harm (female): Ethylene Oxide

WARNING: This product contains chemical(s) known to the state of California to cause cancer.: Ethylene Oxide ; Formaldehyde

Massachusetts RTK: Ethylene Oxide ; Formaldehyde

SARA 311/312 MSDS distribution - chemical inventory - hazard identification: 2-Butoxyethanol: Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard

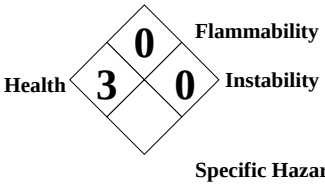
DSD (EEC) Harmful by inhalation, in contact with skin and if swallowed.

International Regulations Lists No products were found.

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

Health	*	3
Flammability		0
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 8/31/2006. **Verified by CRushton.**

Printed 10/23/2006.

Information Contact **Betco Corporation**
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Toledo, Ohio 43607

Notice to Reade

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