BIOTROL™

S A F E T Y D A T A S H E E T

SECTION I: Identification

Product Identifier:
Product Name: **Vacusol Ultra™**
Part/Item Number: **ED900, ED903**
CAS Number: **Mixture of 68424-95-3, 68424-85-1, 64-17-5, 6834-92-0, 64-02-8, and free amine**

Recommended Use of the Substance or Mixture and Restrictions on Use:
Recommended Use: Dental vacuum line cleaner
Restrictions on Use: For professional use only

Details of the Supplier:
Manufactured by: Biotrol
13705 Shoreline Court East
Earth City, MO 63045
1-800-822-8550

Emergency Phone Number:
Infotrac:
24-Hour Number- (U.S.) 1-800-535-5053
Outside U.S.- 352-323-3500

SECTION II: Hazard(s) Identification

OSHA HCS Status: This product is a hazardous chemical, as defined by OSHA at 29 CFR 1910.1200.

Relevant Route of Exposure/Target Organs: Dermal, Eyes, Respiratory System

Classification of the Substance or Mixture:

Health Hazard	Physical Hazard
Eye Damage/Irritation (Hazard Category 1)	Not applicable
Skin Corrosion/Irritation (Hazard Category 1B)	
Specific Target Organ Toxicity – Single Exposure (Hazard Category 3)	

Label Elements:

Hazard Symbol:

Signal Word: DANGER

Hazard Statement(s):
Causes severe skin burns and eye damage.
Causes serious eye damage.
May cause respiratory irritation.

Precautionary Statement(s):
Prevention –
Do not breathe mists, vapors, or sprays.
Wash hands thoroughly after handling.
Wear protective gloves, protective clothing, eye and face protection.
Use only outdoors or in a well-ventilated area.

Response –
If swallowed: Rinse mouth. Do NOT induce vomiting.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
Specific treatment for skin exposure: Remove contaminated clothing and shoes immediately. Wash with large amounts of water until no evidence of chemical remains.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a poison center or physician.
Wash contaminated clothing before reuse.
Call a poison center or physician if you feel unwell.

Storage –
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.

Disposal –
Dispose of contents and container in accordance with local, regional, national, and international regulations.

Other Hazards – Not known

SECTION III: Composition/Information on Ingredients

Hazardous Components:

Component	CAS #	WT%
Di-(C-8-10)-alkyldimethyl ammonium chlorides[+]	68424-95-3	<5
Alkyldimethylbenzyl ammonium chloride (C12-16)[+]	68424-85-1	<5
Ethanol	64-17-5	<1
Sodium Metasilicate	6834-92-0	<1
Tetrasodium EDTA[+]	64-02-8	5.3
Free Amine*	Trade Secret	<1

[+]TSCA Registry Names:

Di-(C-8-10)-alkyldimethyl ammonium chlorides: Quaternary ammonium compounds, di-C8-10-alkyldimethyl, chlorides

Alkyldimethylbenzyl ammonium chloride (C12-16): Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides

Tetrasodium EDTA: Ethylenediaminetetraacetic acid tetrasodium salt

* The specific chemical identity is being withheld as a trade secret.

SECTION IV: First-Aid Measures

Description of First Aid Measures:
Inhalation – Remove from exposure area to fresh air immediately. Perform artificial respiration or use oxygen if necessary.
Eye contact – Wash eyes immediately with large amounts of water for at least 15 minutes, occasionally lifting upper and lower lids, until no evidence of chemical remains.
Ingestion – Do not induce vomiting. If vomiting occurs, keep the head lower than hips to help prevent aspiration.
Skin contact – Remove contaminated clothing and shoes immediately. Wash with large amounts of water until no evidence of chemical remains.

Most Important Symptoms and Effects, Acute and Delayed: Causes severe skin burns and eye damage. Causes serious eye damage. May cause respiratory irritation.

Indication of Any Immediate Medical Attention and Special Treatment Needed: Get medical attention immediately if product comes into contact with skin or eyes, or if it is inhaled or ingested.

SECTION V: Firefighting Measures

Extinguishing Media: CO_2, dry chemical, foam, or water type BC or ABC extinguisher

Specific Hazards Arising from the Substance or Mixture: Strong acids and bases react with aluminum to form hydrogen which is explosive if ignited.

Advice for Fire-Fighters:
Protective Equipment – Firefighters should be equipped with self-contained breathing apparatus and turn out gear.
Precaution – Keep away from heat, sparks, open flames, and hot surfaces. Adequate ventilation and cleanup must be maintained to minimize vapor accumulation.

SECTION VI: Accidental Release Measures

Personal Precautions, Protective Equipment, and Emergency Procedures:
Personal Precautions – Take precautions to avoid eye, skin, and respiratory exposure. Should exposure occur, see Section IV for first aid measures.
Protective Equipment – Wear protective equipment. See Section VIII.
For Emergency Responders – Spilled material is slippery. Maintain adequate ventilation to minimize vapor accumulation.
Environmental Precautions – Do not discharge into waterways or sewer systems without proper authority.
Methods and Materials for Containment and Cleaning Up: Prevent further leakage or spillage if safe to do so. Spills should be contained and absorbed with inert material. Place in a suitable container, cover container, and prepare container for disposal. Dispose of in accordance with all government regulations.

SECTION VII: Handling and Storage

Precautions for Safe Handling: For professional use only. Read the label before use and observe all labeled precautions. Keep out of reach of children. This product should be handled under conditions of good industrial hygiene and in conformity with any local regulations in order to avoid unnecessary exposure. Use only in a well-ventilated area. Do not breathe mist, vapor, or spray. Avoid contact with skin or eyes.

Conditions for Safe Storage, Including Any Incompatibilities:
Storage Conditions – Store in a well-ventilated area. Avoid overheating or freezing. Keep container tightly closed. Store locked up.
Incompatible Materials – Strong acids and bases react with aluminum to form hydrogen which is explosive if ignited.

SECTION VIII: Exposure Controls/Personal Protection

Control Parameters:

Occupational Exposure Limits:		
Component	**OSHA PEL**	**ACGIH TLV**
Ethanol (CAS #: 64-17-5)	1000 ppm	1000 ppm

Exposure Controls:
Appropriate Engineering Controls – Use exhaust ventilation to control airborne exposure.

Individual Protection Measures (PPE) –
Skin Protection – The type of protective equipment must be selected according to the concentration and amount of the substance in use at the specific workplace. Wear gloves and protective clothing as necessary to prevent skin contact. Refer to personal protective equipment manufacturer's instructions to ensure that it is suitable for the ingredients in this product and use limitations.
Eye Protection – Wear eye and face protection. Wear goggles or safety glasses that meet ANSI Z87 standards and/or are tested and approved under appropriate government standards.
Respiratory Protection – If engineering controls are insufficient, wear NIOSH/MSHA approved respirator. Refer to respirator manufacturer's instructions for determining use procedures and limitations.

SECTION IX: Physical and Chemical Properties

Information on Physical and Chemical Properties:	
Appearance:	Yellow liquid
Odor:	Lemon
Odor threshold:	Not known
pH:	~12.4
Melting point/freezing point:	Not known
Initial boiling point and boiling range:	212^{o}F (100^{o}C), not known
Flash point:	200^{o}F (93^{o}C) (PMCC)
Evaporation rate (Butyl Acetate =1):	Not known
Flammability (solid, gas):	Not known
Flammability limits in air:	Not known
Vapor pressure:	Like water
Vapor density (Air = 1):	Heavier than air
Solubility(ies):	Complete in water
Partition coefficient: n-octanol/water	Not known
Auto-ignition temperature:	Not known
Decomposition temperature:	Not known
Viscosity:	Not known
Specific gravity (Water = 1):	~1.01
Explosive properties:	Not known
Oxidizing properties:	Not known

SECTION X: Stability and Reactivity

Reactivity: Not known
Chemical Stability: Stable
Possibility of Hazardous Reactions: Not known
Hazardous Polymerization: Will not occur
Conditions to Avoid: Strong acids and bases react with aluminum to form hydrogen which is explosive if ignited.
Incompatible Materials: Not known
Hazardous Decomposition Products: Not known

SECTION XI: Toxicological Information

Relevant Route of Exposure/Target Organs: Dermal, Eyes, Respiratory System
Symptoms: Causes severe skin burns and eye damage. Causes serious eye damage. May cause respiratory irritation.

Delayed and Immediate Effects:
Eye Effects – Causes serious eye damage.
Skin Effects – Causes severe skin buns.
Inhalation – Vapors may irritate respiratory passages.
Ingestion – Not determined

Chronic Effects (Short and Long Term Exposure): Not known
Numerical Measures of Toxicity:
Alkyldimethylbenzyl ammonium chloride (C12-16): Oral LD_{50} (rat) = 426 mg/kg
Tetrasodium EDTA: Oral LD_{50} = 1780 mg/kg

Carcinogenicity: Disclosed components are not listed as carcinogens by the NTP, IARC, or OSHA at 29 CFR 1910 Subpart Z.
Mutagenicity: No data available
Reproductive Toxicity: No data available

SECTION XII: Ecological Information

Ecotoxicity: No data available
Persistence and Degradability: Not known
Bioaccumulative Potential: Not known
Mobility in Soil: Not known
Other Adverse Effects: Not known

SECTION XIII: Disposal Considerations

Do not discharge into waterways or sewer systems without proper authority. Dispose of in accordance with all government regulations.

SECTION XIV: Transport Information

DOT (US)
UN number: UN 1903
Proper shipping name: Disinfectant, liquid, corrosive, n.o.s. (quaternary ammonium compounds)
Hazard class: 8
Packing group: II

ICAO/IATA
UN number: UN 1903
Proper shipping name: Disinfectant, liquid, corrosive, n.o.s. (quaternary ammonium compounds)
Hazard class: 8
Packing group: II

SECTION XV: Regulatory Information

US State Regulations:
California Proposition 65 – Disclosed components are not listed

US Federal Regulations:
TSCA Inventory Status – Disclosed components are registered. TSCA registry names:
Di-(C-8-10)-alkyldimethyl ammonium chlorides: Quaternary ammonium compounds, di-C8-10-alkyldimethyl, chlorides
Alkyldimethylbenzyl ammonium chloride (C12-16): Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides
Tetrasodium EDTA: Ethylenediaminetetraacetic acid tetrasodium salt
SARA Title III Section 302 – Disclosed components are not reportable.
SARA Title III Section 304 – Disclosed components are not reportable.
SARA Section 311/312 Hazard Categories – Immediate (Acute)
SARA Title III Section 313 – Disclosed components are not subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right to Know Act of 1986 (EPCRA or SARA Title III) and 40 CFR 372.
CERCLA RQ – Disclosed components are not reportable.

International Regulations: Not determined

SECTION XVI: Other Information

Supersedes: 13 February 2013
Date Revised: 28 May 2015

Abbreviations:

ACGIH	American Conference of Industrial Hygienists
ANSI	American National Standards Institute
CAS	Chemical Abstracts Service
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CFR	US Code of Federal Regulations
CO_2	Carbon dioxide
DOT	US Department of Transportation
EPCRA	Emergency Planning and Community Right-to-Know Act
HCS	Hazard Communication Standard
IARC	International Agency for Research on Cancer
ICAO/IATA	International Civil Aviation Organization/International Air Transport Association
LD50	Lethal dose to 50% of exposed laboratory animals
MSHA	US Mine Safety and Health Administration
NIOSH	US National Institute of Occupational Safety and Health
n.o.s.	Not otherwise specified
NTP	National Toxicology Program
OSHA	US Occupational Safety Health Administration
PEL	Permissible exposure limit
PMCC	Pensky-Martens closed-cup
ppm	Parts per million
RQ	Reportable quantity
SARA	Superfund Amendments and Reauthorization Act
SDS	Safety data sheet
TLV	Threshold limit value
TSCA	Toxic Substances Control Act
UN	United Nations
US/USA	United States
