MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product Name	Betco BetOne Disinfectant Wipes
CAS #	Mixture
Product use	Disinfectant
Manufacturer	Betco Corporation 1001 Brown Avenue Toledo, Ohio 43607 Phone 1-888-462-3826

2. Hazards Identification

Emergency overview	DANGER FLAMMABLE LIQUID AND VAPOR. CAUSES EYE IRRITATION.
Potential short term health effects	
Routes of exposure	Eye, Skin contact, Inhalation, Ingestion.
Eyes	Moderately irritating to the eyes based on test data.
Skin	May be slightly irritating to skin based on test data.
Inhalation	May cause respiratory tract irritation.
Ingestion	May cause stomach distress, nausea or vomiting.
Target organs	Blood. Eyes. Liver. Respiratory system. Skin.
Chronic effects	Prolonged or repeated exposure can cause drying, defatting and dermatitis.
Signs and symptoms	Symptoms may include redness, edema, drying, defatting and cracking of the skin. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.
OSHA Regulatory Status	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
Potential environmental effects	Components of this product have been identified as having potential environmental concerns.

3. Composition / Information on Ingredients

Ingredient(s)	CAS #	Percent
Ethanol	64-17-5	60 - 80

4. First Aid Measures

First aid procedures	
Eye contact	Flush with cool water. Remove contact lenses, if applicable, and continue flushing. Obtain medical attention if irritation persists.
Skin contact	In case of skin irritation flush with cool water for 15 minutes. Obtain medical attention if irritation persists.
Inhalation	If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.
Ingestion	Do not induce vomiting. Never give anything by mouth if victim is unconscious, or is convulsing. Obtain medical attention.
Notes to physician	Symptoms may be delayed.
General advice	Keep away from sources of ignition. No smoking. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Keep out of reach of children.

5. Fire Fighting Measures

Flammable properties	Flammable by OSHA criteria. Containers may explode when heated.

Extinguishing media

Suitable extinguishing media Small Fires: Dry chemical, CO2, water spray or regular foam.

Large Fires: Water spray, fog or regular foam.

Unsuitable extinguishing media Not available

Protection of firefighters

Specific hazards arising from the chemical Not available

Protective equipment for firefighters Firefighters should wear full protective clothing including self contained breathing apparatus.

Hazardous combustion products May include and are not limited to: Oxides of carbon.

Explosion data

Sensitivity to mechanical impact Not available

Sensitivity to static discharge Not available

6. Accidental Release Measures

Personal precautions Keep unnecessary personnel away.
Keep people away from and upwind of spill/leak.

Environmental precautions Not available

Methods for containment Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas.

Methods for cleaning up Before attempting clean up, refer to hazard data given above. Small spills may be absorbed with non-reactive absorbent and placed in suitable, covered, labelled containers. Prevent large spills from entering sewers or waterways. Contact emergency services and supplier for advice. Never return spills to original containers for re-use.

7. Handling and Storage

Handling Keep container tightly closed.
Use only with adequate ventilation. Use good industrial hygiene practices in handling this material. When using do not eat or drink. Avoid contact with eyes. Wash thoroughly after handling.

Storage Keep out of reach of children.
Do not store at temperatures above 120°F (49°C). Keep away from heat, sparks, and flame. Store in a closed container away from incompatible materials.

8. Exposure Controls / Personal Protection

Exposure limits

Ingredient(s)	Exposure Limits
Ethanol	ACGIH-TLV TWA: 1000 ppm STEL: 1000 ppm OSHA-PEL TWA: 1000 ppm

Engineering controls General ventilation normally adequate.

Personal protective equipment

Eye / face protection Wear safety glasses with side shields.

Hand protection Not required.

Skin and body protection As required by employer code.

Respiratory protection Not normally required.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink.

9. Physical and Chemical Properties

Appearance Clear

Color Colorless

Form Saturated Wipes

Odor	Mild Alcohol
Odor threshold	Not available
Physical state	Liquid
pH	3.7 @ 25° (77°F) by CIPAC MT75
Freezing point	Not available
Boiling point	Not available
Pour point	Not available
Evaporation rate	Not available
Flash point	< or = to 22°C (71.6°F) per ASTM D93 Pensky-Martens Closed Tester
Auto-ignition temperature	Not available
Flammability limits in air, lower, % by volume	Not available
Flammability limits in air, upper, % by volume	Not available
Vapor pressure	Not available
Vapor density	Not available
Specific gravity	Not available
Relative density	0.8562 by ASTM D891-09 pycnometer method
Octanol/water coefficient	Not available
Viscosity	3.2345 cSt @ 20°C (68°F) by capillary viscometer per ISO 3104 & 3105

10. Stability and Reactivity

Reactivity	Not available
Possibility of hazardous reactions	Not available
Chemical stability	Stable under recommended storage conditions.
Conditions to avoid	Avoid high temperatures. Do not mix with other chemicals.
Incompatible materials	Not available
Hazardous decomposition products	May include and are not limited to: Oxides of carbon.

11. Toxicological Information

Component analysis - LC50

Ingredient(s)	LC50
Ethanol	31623 ppm rat

Component analysis - Oral LD50

Ingredient(s)	LD50
Ethanol	3450 mg/kg mouse; 7060 mg/kg rat

Effects of acute exposure

Eye	Moderately irritating to the eyes based on test data.
Skin	May be slightly irritating to skin based on test data.
Inhalation	May cause respiratory tract irritation.
Ingestion	May cause stomach distress, nausea or vomiting.
Sensitization	Non-hazardous by OSHA criteria.
Chronic effects	Non-hazardous by OSHA criteria.
Carcinogenicity	Hazardous by OSHA criteria.

ACGIH - Threshold Limit Values - Carcinogens

Ethanol	64-17-5	A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans

Mutagenicity	Non-hazardous by OSHA criteria.
Reproductive effects	Hazardous by OSHA criteria.
Teratogenicity	Non-hazardous by OSHA criteria.

Name of Toxicologically Synergistic Products Not available

12. Ecological Information

Ecotoxicity See below

Ecotoxicity - Freshwater Fish - Acute Toxicity Data

Ethanol	64-17-5	96 Hr LC50 Oncorhynchus mykiss: 12.0 - 16.0 mL/L [static]; 96 Hr LC50 Pimephales promelas: >100 mg/L [static]; 96 Hr LC50 Pimephales promelas: 13400 - 15100 mg/L [flow-through]

Ecotoxicity - Water Flea - Acute Toxicity Data

Ethanol	64-17-5	48 Hr LC50 Daphnia magna: 9268 - 14221 mg/L; 24 Hr EC50 Daphnia magna: 10800 mg/L; 48 Hr EC50 Daphnia magna: 2 mg/L [Static]

Persistence / degradability Not available

Bioaccumulation / accumulation Not available

Mobility in environmental media Not available

Environmental effects Not available

Aquatic toxicity Not available

Partition coefficient Not available

Chemical fate information Not available

13. Disposal Considerations

Disposal instructions Dispose in accordance with all applicable regulations.

Waste from residues / unused products Not available

Contaminated packaging Not available

14. Transport Information

U.S. Department of Transportation (DOT)

Basic shipping requirements:

Proper shipping name Solids containing flammable liquid, n.o.s. (Ethanol)

Hazard class 4.1

UN number UN3175

Packing group II

Additional information:

Special provisions 47, IB6, IP2, T3, TP33

Packaging exceptions < 1 Kg - Consumer Commodity ORM-D

ERG number 133

15. Regulatory Information

Occupational Safety and Health Administration (OSHA)

29 CFR 1910.1200 hazardous chemical Yes

US Federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

U.S. - CAA (Clean Air Act) - Reactivity Factors for VOCs in Aerosol Coatings

Ethanol	64-17-5	1.69 G Ozone/g VOC Reactivity Factor

U.S. - CAA (Clean Air Act) - Volatile Organic Compounds (VOCs) in SOCMI

Ethanol	64-17-5	Present

CERCLA (Superfund) reportable quantity

None

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - Yes Delayed Hazard - Yes Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - No
Section 302 extremely hazardous substance	No
Section 311 hazardous chemical	Yes
Clean Water Act (CWA)	Not available
State regulations	WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

U.S. - Massachusetts - Right To Know List

Ethanol	64-17-5	Teratogen

U.S. - Minnesota - Hazardous Substance List

Ethanol	64-17-5	Present

U.S. - New Jersey - Right to Know Hazardous Substance List

Ethanol	64-17-5	sn 0844

U.S. - Pennsylvania - RTK (Right to Know) List

Ethanol	64-17-5	Present

U.S. - Rhode Island - Hazardous Substance List

Ethanol	64-17-5	Toxic; Flammable

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

A 'Yes' indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other Information

LEGEND
HMIS/NFPA

Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

Health *	1
Flammability	3
Physical Hazard	0
Personal Protection	X

Disclaimer Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

Issue date	7-Nov--2013
Effective date	1-Nov-2013
Prepared by	Betco Corporation
Other information	For an updated MSDS, please contact the supplier/manufacturer listed on the first page of the document.

This MSDS conforms to the ANSI Z400.1/Z129.1-2010 Standard.