

# Material Safety Data Sheet



Revision Date 25-May-2005

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product code** DR8620  
**Product name** TOWERCIDE  
**EPA Registration No.** 1839-138-40208  
**Recommended Use** Water Treatment  
**Supplier** Drummond American Corporation  
600 Corporate Woods Parkway  
Vernon Hills, IL 60061  
(847) 913-9313  
**Emergency telephone number** (888) 426-4851

## 2. HAZARDS IDENTIFICATION

Emergency Overview		
Irritant.		
Color Clear	Odor Slight	Form Liquid

**Aggravated Medical Conditions** Pre-existing skin, eye, or respiratory conditions may be aggravated by exposure to this product.

**Principal Routes of Exposure** Eyes. Skin. Ingestion. Inhalation.

### Potential health effects

**Eyes** Moderately irritating to the eyes. Pain. Tearing. Reddening. Swelling.

**Skin** Moderate irritation. Rash. Redness. Swelling.

**Inhalation** Irritation of the nose or throat. Runny nose. Sore throat. May cause irritation of respiratory tract. Coughing. Chest discomfort. Shortness of breath. May cause irritation to the mucous membranes. Reduced lung function. Central nervous system depression.

**Ingestion** Sore throat. Stomach distress. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %
Ethyl alcohol	64-17-5	1-5
Didecyl dimethyl ammonium chloride	Mixture	10-30

## 4. FIRST AID MEASURES

<b>Eye contact</b>	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Seek medical attention if irritation persists.
<b>Skin contact</b>	Remove and wash contaminated clothing before re-use. Wipe excess from skin and flush with water using soap if available. Seek medical attention if irritation persists.
<b>Ingestion</b>	Do not induce vomiting without medical advice. Keep head below hips if vomiting occurs. Vomiting may cause aspiration pneumonia. Call a physician or Poison Control Center immediately.
<b>Inhalation</b>	Remove to fresh air. Provide oxygen or artificial respiration if necessary. Keep warm and quiet. Immediate medical attention is required.

## 5. FIRE FIGHTING MEASURES

<b>Flash point °C</b>	> 93
<b>Flash point °F</b>	> 200
<b>Method</b>	Tag closed cup
<b>Autoignition temperature °C</b>	No data available
<b>Autoignition temperature °F</b>	No data available
<b>Flammability Limits (% in Air)</b>	
<b>Upper</b>	No data available
<b>Lower</b>	No data available

### Suitable extinguishing media

Water fog. Foam. Dry chemical. Carbon dioxide (CO<sub>2</sub>).

### Extinguishing media which must NOT be used for safety reasons

No information available.

### Special Fire-Fighting Procedures

Evacuate area of unprotected and unnecessary personnel. Do not enter any enclosed or confined fire space without proper protective equipment. Firefighters should wear NIOSH/MSHA approved (or equivalent) self-contained pressure-demand breathing apparatus and full protective clothing.

### Fire and Explosion Hazards

Water should be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat. .

### Sensitivity to shock

No information available.

### Sensitivity to static discharge

No information available.

## 6. ACCIDENTAL RELEASE MEASURES

**Methods for cleaning up**

Evacuate area of unprotected and unnecessary personnel. Personnel should wear appropriate protective equipment. Follow all precautions for handling. Please refer to appropriate sections of MSDS for additional information. Ventilate area to maintain exposure below permissible exposure limits. Use caution as spill may create a slip hazard.

**Clean-up methods - small spill**

Soak up excess with absorbent material. Place in non-leaking, tightly sealed container for proper disposal. .

**Clean-up methods - large spill**

Shut off source of leak if safe to do so. Dike or dam large spills. Do not allow product to reach sewage system, soil, surface or ground water, or any water course. Notify proper authorities if entry occurs. Remove with vacuum trucks or pump to storage vessel.

## 7. HANDLING AND STORAGE

**Handling**

Ensure adequate ventilation. Remove all sources of ignition. Heat, flames and sparks. Turn off other sources of ignition prior to use and until all vapors have dissipated. Keep container closed when not in use. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such contents to heat, flames, and other sources of ignition. Thoroughly wash hands and exposed skin after handling.

**Storage**

Keep out of the reach of children.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Exposure limits**

Chemical Name	OSHA PEL (TWA)	OSHA PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
Ethyl alcohol	1000 ppm 1900 mg/m <sup>3</sup>	-	1000 ppm	-
Didecyl dimethyl ammonium chloride	-	-	-	-

**Ventilation and Environmental Controls**

Adequate ventilation should be provided to keep exposure levels below current acceptable exposure limits.

**Hygiene measures**

Handle in accordance with good industrial hygiene and safety practice. Wash hands after handling the product.

**Personal protective equipment****Other precautions**

Avoid contact with skin, eyes and clothing

**Respiratory protection**

Use NIOSH approved respirator if TLV limit is exceeded.

**Hand protection**

Protective gloves.

**Eye protection**

Use safety eyewear designed to protect against splash of liquids.

**Skin and body protection**

No information available

**Other Protective Equipment**

A safety shower and eye wash station should be available for emergency use.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Form</b>	Liquid	<b>Color</b>	Clear
<b>Odor</b>	Slight	<b>Odor Threshold</b>	No information available
<b>pH</b>	No data available	<b>Specific Gravity</b>	0.9839
<b>Vapor pressure</b>	No data available	<b>Vapor density</b>	> 1 (Air=1)
<b>Evaporation Rate</b>	< 1 (ether = 1)	<b>VOC Content</b>	69 gm/ltr
<b>Water solubility</b>	Soluble in water	<b>Partition Coefficient (n-octanol/water)</b>	No data available
<b>Boiling point/range °F</b>	No data available	<b>Boiling point/range °C</b>	No data available
<b>Melting point/range °F</b>	No data available	<b>Melting point/range °C</b>	No data available
<b>Flash point °F</b>	> 200	<b>Flash point °C</b>	> 93

**10. STABILITY AND REACTIVITY****Stability**

Stable.

**Conditions to avoid**

None known.

**Materials to avoid**

No information available

**Hazardous decomposition products**

Carbon dioxide. Carbon monoxide. Unidentifiable organic compounds.

**Polymerization**

Will not occur.

**Synergistic Products**

No information available.

**11. TOXICOLOGICAL INFORMATION****Component Information**

<b>Chemical Name</b>	<b>LD50 (oral, rat)</b>	<b>LD50 (dermal, rat/rabbit)</b>	<b>LC50 (inhalation, rat)</b>
<i>Ethyl alcohol</i> 64-17-5	7060 mg/kg	-	-
<i>Didecyl dimethyl ammonium chloride</i> Mixture	-	-	-

**Potential health effects**

**Sensitization**

No information available.

**Chronic toxicity**

No information available.

**Mutagenic effects**

No information available.

**Teratogenic effects**

No information available

**Reproductive toxicity**

No information available

**Target Organ Effects**

No information available

**Carcinogenic effects**

See table below

Chemical Name	ACGIH OEL - Carcinogens	IARC	NTP - Known Carcinogens	NTP - Suspected Human Carcinogens	OSHA RTK Carcinogens
Ethyl alcohol	A4 - Not Classifiable as a Human Carcinogen	Not Listed	Not Listed	Not Listed	Not Listed
Didecyl dimethyl ammonium chloride	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed

## 12. ECOLOGICAL INFORMATION

**Aquatic toxicity**

Ethyl alcohol

**Microtox Data***Photobacterium phosphoreum* EC50=34634 mg/L (30 min)*Photobacterium phosphoreum* EC50=35470 mg/L (5 min)

## 13. DISPOSAL CONSIDERATIONS

**Waste from residues / unused products**

Dispose in accordance with federal, state, and local regulations.

## 14. TRANSPORT INFORMATION

**DOT**

Not Regulated

**TDG**

Not Regulated

**IMDG/IMO**

Not Regulated

**IATA**

Not Regulated

**MEX**

Not Regulated

**15. REGULATORY INFORMATION****State Regulations**

Chemical Name	New Jersey - RTK	Pennsylvania - RTK	California Prop. 65
Ethyl alcohol	Listed	Listed	Developmental
Didecyl dimethyl ammonium chloride	Not Listed	Not Listed	Not Listed

**International Inventories**

Chemical Name	EINECS	DSL	NDSL	TSCA
Ethyl alcohol	X	X	-	X
Didecyl dimethyl ammonium chloride	-	-	-	-

**CPRC**

This product has been classified in accordance with the hazard criteria of the Controlled Product Regulations and the MSDS contains all of the information required by the Controlled Product Regulations

**16. OTHER INFORMATION**

NFPA		HMIS	
Health	-	Health	2
Flammability	-	Flammability	1
Reactivity	-	Physical Hazard	0

**Reason for revision**

No information available.

**Prepared By**

T. Heidorn, MSDS Project Lead

The information accumulated herein is believed to be accurate, but is not warranted to be, whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.