

## SAFETY DATA SHEET

Preparation Date: 5/07/2015

Revision Date: 05/07/2015

Revision Number: G1

**Product identifier**

**Product code:** B1068  
**Product Name:** BENZALKONIUM CHLORIDE, 50 PERCENT SOLUTION, NF

**Other means of identification**

**Synonyms:** No information available  
**CAS #:** Mixture  
**RTECS #** Not available  
**Cl#:** Not available

**Recommended use of the chemical and restrictions on use**

**Recommended use:** No information available.  
**Uses advised against** No information available

**Supplier:** Spectrum Chemical Mfg. Corp  
 14422 South San Pedro St.  
 Gardena, CA 90248  
 (310) 516-8000

**Order Online At:** <https://www.spectrumchemical.com>

**Emergency telephone number** Chemtrec 1-800-424-9300  
**Contact Person:** Martin LaBenz (West Coast)  
**Contact Person:** Ibad Tirmiz (East Coast)

### 2. HAZARDS IDENTIFICATION

**Classification**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

|  |             |
|--|-------------|
| Acute toxicity - Oral                              | Category 4  |
| Skin corrosion/irritation                          | Category 1  |
| Serious eye damage/eye irritation                  | Category 1  |
| Respiratory sensitization                          | Category 1B |
| Skin sensitization                                 | Category 1B |
| Reproductive toxicity                              | Category 1B |
| Specific target organ toxicity (repeated exposure) | Category 1  |
| Flammable liquids                                  | Category 3  |

**Label elements**

## Danger

### Hazard statements

Harmful if swallowed  
Causes severe skin burns and eye damage  
May cause allergy or asthma symptoms or breathing difficulties if inhaled  
May cause an allergic skin reaction  
May damage fertility or the unborn child  
Causes damage to organs through prolonged or repeated exposure  
Flammable liquid and vapor



### Hazards not otherwise classified (HNOC)

Not Applicable

### Other hazards

May be harmful in contact with skin

### Precautionary Statements - Prevention

Obtain special instructions before use  
Do not handle until all safety precautions have been read and understood  
Use personal protective equipment as required  
Wash face, hands and any exposed skin thoroughly after handling  
Do not eat, drink or smoke when using this product  
Do not breathe dust/fume/gas/mist/vapors/spray  
In case of inadequate ventilation wear respiratory protection  
Contaminated work clothing should not be allowed out of the workplace  
Wear protective gloves/protective clothing/eye protection/face protection  
Wear respiratory protection  
Keep away from heat/sparks/open flames/hot surfaces. — No smoking  
Keep container tightly closed  
Ground/bond container and receiving equipment  
Use explosion-proof electrical/ventilating/lighting/./? /equipment  
Use only non-sparking tools  
Take precautionary measures against static discharge

### Precautionary Statements - Response

*Immediately call a POISON CENTER or doctor/physician*  
*Specific treatment (see ./? on this label)*

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In case of fire: Use CO2, dry chemical, or foam to extinguish.

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 doctor/physician.

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

Wash contaminated clothing before reuse

If skin irritation or rash occurs: Get medical advice/attention

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

Rinse mouth

Do NOT induce vomiting

#### Precautionary Statements - Storage

Store locked up

Store in a well-ventilated place. Keep cool

#### Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Components                         | CAS-No.   | Weight % | Trade Secret |
|------------------------------------|-----------|----------|--------------|
| Benzalkonium Chloride<br>8001-54-5 | 8001-54-5 | 50       | *            |
| Water<br>7732-18-5                 | 7732-18-5 | 46       | *            |
| Ethyl Alcohol 200 proof<br>64-17-5 | 64-17-5   | 4        | *            |

### 4. FIRST AID MEASURES

#### First aid measures

##### General Advice:

Poison information centers in each State capital city can provide additional assistance for scheduled poisons (13 1126). Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

##### Skin Contact:

Wash off immediately with soap and plenty of water. Continue flushing with plenty of water for at least 15 minutes. Remove all contaminated clothes and shoes. Immediate medical attention is required. Call a physician or Poison Control Centre immediately.

##### Eye Contact:

Flush eye with water for 15 minutes. Immediate medical attention is required. Call a physician immediately.

##### Inhalation:

Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. WARNING! It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled or ingested material is toxic, infectious or corrosive. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Get medical attention.

##### Ingestion:

Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Obtain medical attention.

**Most important symptoms and effects, both acute and delayed**

**Symptoms**

Severe skin and eye irritation or burns. Causes eye damage. May cause allergic skin reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause chemical burns to the respiratory tract. Causes digestive (gastrointestinal) tract irritation. May cause gastrointestinal (digestive) tract burns. Can burn mouth, throat, and stomach. Dyspnea (Shortness of breath and difficulty breathing). May cause pulmonary edema. May affect the cardiovascular system. Central nervous system effects. May affect the liver. It may affect the kidneys.

**Indication of any immediate medical attention and special treatment needed**

**Notes to Physician:**

Treat symptomatically

**Protection of first-aiders**

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste

**5. FIRE-FIGHTING MEASURES**

**Extinguishing Media**

**Suitable Extinguishing Media:**

Carbon dioxide (CO<sub>2</sub>). Dry chemical. Alcohol-resistant foam. Water spray.

**Unsuitable Extinguishing Media:**

Do not use a solid (straight) water stream as it may scatter and spread fire.

**Specific hazards arising from the chemical**

**Hazardous Combustion Products:**

Carbon oxides

**Specific hazards:**

Flammable  
May be ignited by heat, sparks or flames  
Container explosion may occur under fire conditions or when heated  
Vapor may travel considerable distance to source of ignition and flash back  
Vapors may form explosive mixtures with air  
Most vapors are heavier than air. They will spread along the ground and collect in low or confined areas (sewers, basements, tanks)

**Special Protective Actions for Firefighters**

**Specific Methods:**

Water mist may be used to cool closed containers. For larger fires, use water spray or fog. Cool containers with flooding quantities of water until well after fire is out. Dike fire-control water for later disposal; do not scatter the material.

**Special Protective Equipment for Firefighters:**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

**Personal Precautions:** Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid contact with skin, eyes and clothing. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Use personal protective equipment. Remove all sources of ignition. Pay attention to flashback. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use spark-proof tools and explosion-proof equipment. In case of large spill, water spray or vapor suppressing foam may be used to reduce vapors, but may not prevent ignition in closed spaces.

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Prevent entry into waterways, sewers, basements or confined areas.

### Methods and material for containment and cleaning up

**Methods for containment** Stop leak if you can do it without risk. Absorb spill with inert material (e.g. vermiculite, dry sand or earth). In case of large spill, dike if needed. Dike far ahead of liquid spill for later disposal.

**Methods for cleaning up** Use appropriate tools to put the spilled material in a suitable chemical waste disposal container. Use only non-sparking tools. Clean contaminated surface thoroughly.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

#### **Technical Measures/Precautions:**

Provide sufficient air exchange and/or exhaust in work rooms. Remove all sources of ignition. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Keep away from incompatible materials.

#### **Safe Handling Advice**

Wear personal protective equipment. Use only in well-ventilated areas. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Do not breathe vapors or spray mist. Do not ingest. When using do not smoke. Handle in accordance with good industrial hygiene and safety practice.

### Conditions for safe storage, including any incompatibilities

#### **Technical Measures/Storage Conditions:**

Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Keep away from heat and sources of ignition. Store away from incompatible materials. Store in a segregated and approved area.

#### **Incompatible Materials:**

Strong oxidizing agents. Nitrates. Anionic surfactants.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### **National occupational exposure limits**

##### **United States**

| Components                         | OSHA | NIOSH | ACGIH | AIHA WHEEL |
|------------------------------------|------|-------|-------|------------|
| Benzalkonium Chloride<br>8001-54-5 | None | None  | None  | None       |
| Water<br>7732-18-5                 | None | None  | None  | None       |

|                                    |  |  |               |      |
|------------------------------------|--|--|---------------|------|
| Ethyl Alcohol 200 proof<br>64-17-5 | 1000 ppm TWA<br>1900 mg/m <sup>3</sup> TWA | 1000 ppm TWA<br>1900 mg/m <sup>3</sup> TWA | 1000 ppm STEL | None |
|------------------------------------|--|--|---------------|------|

### Canada

| Components                         | Alberta                                    | British Columbia | Ontario       | Quebec   |
|------------------------------------|--|------------------|---------------|--|
| Benzalkonium Chloride<br>8001-54-5 | None                                       | None             | None          | None   |
| Water<br>7732-18-5                 | None                                       | None             | None          | None   |
| Ethyl Alcohol 200 proof<br>64-17-5 | 1000 ppm TWA<br>1880 mg/m <sup>3</sup> TWA | 1000 ppm STEL    | 1000 ppm STEL | 1000 ppm TWAEV<br>1880 mg/m <sup>3</sup> TWAEV |

### Australia and Mexico

| Components                         | Australia                                  | Mexico                                     |
|------------------------------------|--|--|
| Benzalkonium Chloride<br>8001-54-5 | None                                       | None                                       |
| Water<br>7732-18-5                 | None                                       | None                                       |
| Ethyl Alcohol 200 proof<br>64-17-5 | 1000 ppm TWA<br>1880 mg/m <sup>3</sup> TWA | 1000 ppm TWA<br>1900 mg/m <sup>3</sup> TWA |

### Appropriate engineering controls

#### Engineering measures to reduce exposure:

Ensure adequate ventilation. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors and mist below their respective threshold limit value.

### Individual protection measures, such as personal protective equipment

#### Personal Protective Equipment

**Eye protection:** Face-shield

**Skin and body protection:** Chemical resistant apron. Long sleeved clothing. Gloves.

**Respiratory protection:** Vapor respirator. Be sure to use an approved/certified respirator or equivalent.

**Hygiene measures:** Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

## 9. PHYSICAL AND CHEMICAL PROPERTIES

|  |   |  |
|--|---|--|
| <b>Physical state:</b><br>Liquid                               | <b>Appearance:</b><br>No information available  | <b>Color:</b><br>Clear. Colorless.   |
| <b>Odor:</b><br>Aromatic.                                      | <b>Taste</b><br>Bitter.   | <b>Molecular/Formula weight:</b><br>No information available   |
| <b>Formula:</b><br>No information available                    | <b>Flammability:</b><br>flammable   | <b>Flash point (°C):</b><br>52.2   |
| <b>Flashpoint (°C/°F):</b><br>52.2°-56.1°C/126°-132.98°F       | <b>Flash Point Tested according to:</b><br>Closed cup   | <b>Lower Explosion Limit (%):</b><br>No information available  |
| <b>Upper Explosion Limit (%):</b><br>No information available  | <b>Autoignition Temperature (°C/°F):</b><br>No information available                            | <b>pH:</b><br>No information available   |
| <b>Melting point/range(°C/°F):</b><br>No information available | <b>Boiling point/range(°C/°F):</b><br>No information available                                  | <b>Decomposition temperature(°C/°F):</b><br>No information available   |
| <b>Bulk density:</b><br>No information available               | <b>Specific gravity:</b><br>No information available  | <b>Vapor pressure @ 20°C (kPa):</b><br>No information available  |
| <b>Density (g/cm3):</b><br>0.97 @ 25 deg. C                    | <b>Evaporation rate:</b><br>No information available  | <b>Vapor density:</b><br>>1  |
| <b>VOC content (g/L):</b><br>No information available          | <b>Odor threshold (ppm):</b><br>The highest known value is 100 ppm<br>(Ethyl alcohol 200 Proof) | <b>Partition coefficient<br/>(n-octanol/water):</b><br>No information available  |
| <b>Viscosity:</b><br>No information available                  | <b>Miscibility:</b><br>No information available   | <b>Solubility:</b><br>Easily soluble in cold water<br>Easily soluble in hot water<br>Partially soluble in diethyl ether<br>Soluble in Acetone<br>Soluble in Methanol |

## 10. STABILITY AND REACTIVITY

### Reactivity

Reactive with strong oxidizing agents

### Chemical stability

#### **Stability:**

Stable under recommended storage conditions

#### **Possibility of Hazardous Reactions:**

Hazardous polymerization does not occur

#### **Conditions to avoid:**

Heat. Ignition sources. Incompatible materials.

#### **Incompatible Materials:**

Strong oxidizing agents. Nitrates. Anionic surfactants.

#### **Hazardous decomposition products:**

No information available

### Other Information

#### **Corrosivity:**

No information available

#### **Special Remarks on Corrosivity:**

No information available

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## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

#### Principal Routes of Exposure:

Eyes. Skin. Ingestion. Inhalation.

### Acute Toxicity

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral) 479mg/kg

### Component Information

#### *Benzalkonium Chloride - 8001-54-5*

**LD50/oral/rat** = 240 mg/kg Oral LD50 Rat

**LD50/oral/mouse** = No information available

**LD50/dermal/rat** = No information available

**LD50/dermal/rabbit** = No information available

**LC50/inhalation/rat** = No information available

**LC50/inhalation/mouse** = No information available

**Other LD50 or LC50 information** = No information available

#### *Water - 7732-18-5*

**LD50/oral/rat** = > 90 mL/kg Oral LD50 Rat

**LD50/oral/mouse** = No information available

**LD50/dermal/rat** = No information available

**LD50/dermal/rabbit** = No information available

**LC50/inhalation/rat** = No information available

**LC50/inhalation/mouse** = No information available

**Other LD50 or LC50 information** = No information available

#### *Ethyl Alcohol 200 proof - 64-17-5*

**LD50/oral/rat** = 7060 mg/kg Oral LD50 Rat

**LD50/oral/mouse** = 3450 mg/kg

**LD50/dermal/rat** = No information available

**LD50/dermal/rabbit** = No information available

**LC50/inhalation/rat** = 124.7 mg/L Inhalation LC50 Rat 4 h

**LC50/inhalation/mouse** = 39000 mg/m<sup>3</sup> 4 h

**Other LD50 or LC50 information** = >60000 ppm Inhalation LC50 Mouse 1 h

5900 mg/m<sup>3</sup> Inhalation LC50 Rat 6 h

20000 ppm Inhalation LC50 Rat 10 h

5560 mg/kg Oral LD50 Guinea Pig

6300 mg/kg Oral LD50 Rabbit

### Product Information

**LD50/oral/rat** =

**VALUE- Acute Tox Oral** = No information available

**LD50/oral/mouse** =

**Value - Acute Tox Oral** = No information available

**LD50/dermal/rabbit**

**VALUE-Acute Tox Dermal** = No information available

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**LD50/dermal/rat**

VALUE -Acute Tox Dermal = No information available

**LC50/inhalation/rat**

VALUE-Vapor = No information available

VALUE-Gas = No information available

VALUE-Dust/Mist = No information available

**LC50/Inhalation/mouse**

VALUE-Vapor = No information available

VALUE - Gas = No information available

VALUE - Dust/Mist = No information available

**Symptoms****Skin Contact:** Causes severe irritation and burns. May be harmful in contact with skin. May cause allergic skin reaction.**Eye Contact:** Causes severe eye irritation and possible burns.**Inhalation** May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause respiratory tract and mucous membrane irritation with sore throat, coughing, shortness of breath, and delayed lung edema. May cause chemical burns to the respiratory tract. High vapor concentrations may cause nervous system effects.**Ingestion** Harmful if swallowed. Causes gastrointestinal/digestive tract irritation and burns. May affect behavior (central nervous system depression, depression) and metabolism. May produce burning pains in the mouth, throat, and abdomen, profuse salivation, muscle weakness. May also affect the respiratory system and cardiovascular system, liver and kidneys.**Aspiration hazard** No information available**Delayed and immediate effects as well as chronic effects from short and long-term exposure****Chronic Toxicity** Prolonged or repeated skin contact may cause dermatitis. Repeated contact may cause allergic reactions in very susceptible persons.. Prolonged or repeated ingestion may cause cyanosis.**Sensitization:** May cause sensitization by inhalation and skin contact**Mutagenic Effects:** May affect genetic material  
Experiments with bacteria and/or yeast have shown mutagenic effects**Carcinogenic effects:** Not considered carcinogenic

| Components              | IARC   | ACGIH - Carcinogens   | NTP        | OSHA HCS - Carcinogens | Australia - Prohibited Carcinogenic Substances | Australia - Notifiable Carcinogenic Substances |
|-------------------------|--|---|------------|------------------------|--|--|
| Benzalkonium Chloride   | Not listed   | Not listed  | Not listed | Not listed             | Not listed                                     | Not listed                                     |
| Water                   | Not listed   | Not listed  | Not listed | Not listed             | Not listed                                     | Not listed                                     |
| Ethyl Alcohol 200 proof | Group 1 - Monograph 100E [2012] in alcoholic beverages<br>Monograph 96 [2010] in alcoholic beverages | A3 Confirmed Animal Carcinogen with Unknown Relevance to Humans | Not listed | Present                | Not listed                                     | Not listed                                     |

**Reproductive toxicity**                      No data is available

**Reproductive Effects:**                      May cause adverse reproductive effects based on animal data  
Benzalkonium Chloride is an active ingredient in vaginal spermicides. When applied in the vagina of pregnant rats at much higher doses than those used in spermicides, it caused increased resorptions leading to fetal death, and reduced litter size and weight. No adverse reproductive effects have been reported after oral treatment of rats and guinea pigs and dermal administration to rats  
May impair fertility  
May cause harm to the unborn child

**Developmental Effects:**                      No information available  
**Teratogenic Effects:**                      No information available

**Specific Target Organ Toxicity**

**STOT - single exposure**                      No information available  
**STOT - repeated exposure**                      Causes damage to organs through prolonged or repeated exposure.  
**Target Organs:**                      Cardiovascular system. Gastrointestinal tract. Heart. Kidneys. Reproductive System. Skin.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

**Ecotoxicity effects:**                      Aquatic environment.

*Benzalkonium Chloride - 8001-54-5*

**Freshwater Fish Species Data:**                      2.4 mg/L LC50 *Oryzias latipes* 96 h semi-static 1  
0.223-0.46 mg/L LC50 *Lepomis macrochirus* 96 h static 1  
0.823-1.61 mg/L LC50 *Oncorhynchus mykiss* 96 h static 1  
1.3 mg/L LC50 *Poecilia reticulata* 96 h semi-static 1

*Ethyl Alcohol 200 proof - 64-17-5*

**Freshwater Fish Species Data:**                      12.0 - 16.0 mL/L LC50 *Oncorhynchus mykiss* 96 h static 1  
13400 - 15100 mg/L LC50 *Pimephales promelas* 96 h flow-through 1  
100 mg/L LC50 *Pimephales promelas* 96 h static 1

**Water Flea Data:**                      9268 - 14221 mg/L LC50 *Daphnia magna* 48 h  
10800 mg/L EC50 *Daphnia magna* 24 h  
2 mg/L EC50 *Daphnia magna* 48 h

**Persistence and degradability:**                      No information available

**Bioaccumulative potential:**                      No information available

**Mobility:**                      No information available

**13. DISPOSAL CONSIDERATIONS**

**Disposal Methods**

### 13. DISPOSAL CONSIDERATIONS

#### Waste from residues / unused products:

Waste must be disposed of in accordance with Federal, State and Local regulation.

#### Contaminated packaging:

Empty containers should be taken for local recycling, recovery or waste disposal

| Components              | RCRA - F Series Wastes | RCRA - K Series Wastes | RCRA - P Series Wastes | RCRA - U Series Wastes |
|-------------------------|------------------------|------------------------|------------------------|------------------------|
| Benzalkonium Chloride   | None                   | None                   | None                   | None                   |
| Water                   | None                   | None                   | None                   | None                   |
| Ethyl Alcohol 200 proof | None                   | None                   | None                   | None                   |

### 14. TRANSPORT INFORMATION

#### DOT

**UN-No:** UN2920  
**Proper Shipping Name:** Corrosive liquids, flammable, n.o.s. (Benzalkonium Chloride solution)  
**Hazard Class:** 8  
**Subsidiary Risk:** 3  
**Packing Group:** II  
**ERG No:** 132  
**Marine Pollutant:** No data available  
**DOT RQ (lbs):** No information available

#### Symbol(s):

G

#### TDG (Canada)

**UN-No:** UN2920  
**Proper Shipping Name:** Corrosive liquid, flammable, n.o.s.  
**Hazard Class:** 8  
**Subsidiary Risk:** (3)  
**Packing Group:** II  
**Description:** No information available

#### ADR

**UN-No:** UN2920  
**Proper Shipping Name:** Corrosive liquid, flammable, n.o.s.  
**Hazard Class:** 8  
**Packing Group:** II  
**Subsidiary Risk:** 3  
**Classification Code:** No information available  
**Description:** No information available  
**CEFIC Tremcard No:** No information available

#### IMO / IMDG

**UN-No:** UN2920  
**Proper Shipping Name:** Corrosive liquid, flammable, n.o.s.  
**Hazard Class:** 8  
**Subsidiary Risk:** 3  
**Packing Group:** II  
**Description:** No information available  
**IMDG Page:** No information available  
**Marine Pollutant:** No information available  
**EMS:** F-E  
**MFAG:** No information available

## 14. TRANSPORT INFORMATION

**Maximum Quantity:** No information available

### RID

**UN-No:** UN2920  
**Proper Shipping Name:** Corrosive liquid, flammable, n.o.s.  
**Hazard Class:** 8  
**Subsidiary Risk:** 3  
**Packing Group:** II  
**Classification Code:** No information available  
**Description:** No information available

### ICAO

**UN-No:** UN2920  
**Proper Shipping Name:** Corrosive liquid, flammable, n.o.s.  
**Hazard Class:** 8  
**Subsidiary Risk:** 3  
**Packing Group:** II  
**Description:** No information available

### IATA

**UN-No:** UN2920  
**Proper Shipping Name:** Corrosive liquid, flammable, n.o.s.  
**Hazard Class:** 8  
**Subsidiary Risk:** 3  
**Packing Group:** II  
**ERG Code:** 8F  
**Description:** No information available

## 15. REGULATORY INFORMATION

### International Inventories

| Components                     | U.S. TSCA  | KOREA KECL       | Philippines (PICCS) | Japan ENCS  | CHINA   | Australia (AICS) | EINECS-No.        |
|--------------------------------|------------|------------------|---------------------|-------------|---------|------------------|-------------------|
| <i>Benzalkonium Chloride</i>   | Not Listed | Present KE-00790 | Present             | Not present | Present | Present          | Not present       |
| <i>Water</i>                   | Present    | Present KE-35400 | Present             | Not present | Present | Present          | Present 231-791-2 |
| <i>Ethyl Alcohol 200 proof</i> | Present    | KE-13217         | Present             | (2)-202     | Present | Present          | Present 200-578-6 |

### U.S. Regulations

*Ethyl Alcohol 200 proof*

**Massachusetts RTK:** Present

**New Jersey RTK Hazardous Substance List:** 0844

**Pennsylvania RTK:** Present

**Minnesota - Hazardous Substance List:** Present

**Louisiana Reportable Quantity List for Pollutants:** Present (listed as Volatile Organic Compounds)

**California Directors List of Hazardous Substances:** Present

**FDA - Food Additives Generally Recognized as Safe (GRAS):** 21 CFR 184.1293

**FDA - 21 CFR - Total Food Additives** 169.175 169.176 169.177 169.181 172.340 172.560 172.580 175.105 176.180 176.200  
 177.1200 177.1650 178.1010 184.1293 73.30 73.345 73.615

### California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

#### Chemicals Known to the State of California to Cause Cancer:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

**Product code:** B1068

**Product name:** BENZALKONIUM  
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**Chemicals Known to the State of California to Cause Reproductive Toxicity:**

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm (See table below)

| Components              | Carcinogen | Developmental Toxicity  | Male Reproductive Toxicity | Female Reproductive Toxicity: |
|-------------------------|------------|---|----------------------------|-------------------------------|
| Benzalkonium Chloride   | Not Listed | Not Listed  | Not Listed                 | Not Listed                    |
| Water                   | Not Listed | Not Listed  | Not Listed                 | Not Listed                    |
| Ethyl Alcohol 200 proof | Not Listed | developmental toxicity (Ethyl alcohol in alcoholic beverages) | Not Listed                 | Not Listed                    |

**CERCLA/SARA**

| Components                     | CERCLA - Hazardous Substances and their Reportable Quantities | Section 302 Extremely Hazardous Substances and TPQs | Section 302 Extremely Hazardous Substances and RQs | Section 313 - Chemical Category | Section 313 - Reporting <i>de minimis</i> |
|--------------------------------|---|---|--|---------------------------------|---|
| <i>Benzalkonium Chloride</i>   | None  | None  | None   | None                            | None                                      |
| <i>Water</i>                   | None  | None  | None   | None                            | None                                      |
| <i>Ethyl Alcohol 200 proof</i> | None  | None  | None   | None                            | None                                      |

**U.S. TSCA**

| Components                     | TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS) | TSCA 8(d) -Health and Safety Reporting |
|--------------------------------|---|--|
| <i>Benzalkonium Chloride</i>   | Not Applicable  | Not Applicable                         |
| <i>Water</i>                   | Not Applicable  | Not Applicable                         |
| <i>Ethyl Alcohol 200 proof</i> | Not Applicable  | Not Applicable                         |

**Canada****WHMIS hazard class:**

B3 Combustible liquid  
D1B Toxic materials  
E Corrosive material

**Benzalkonium Chloride**

D1B E

**Water**

Uncontrolled product according to WHMIS classification criteria

**Ethyl Alcohol 200 proof**

B2 D2B

**Canada Controlled Products Regulation:**

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

| Components              | WHMIS Ingredient Disclosure List - |
|-------------------------|------------------------------------|
| Ethyl Alcohol 200 proof | 0.1 %                              |

**Inventory**

| Components              | Canada (DSL) | Canada (NDSL) |
|-------------------------|--------------|---------------|
| Benzalkonium Chloride   | Present      | Not Listed    |
| Water                   | Present      | Not Listed    |
| Ethyl Alcohol 200 proof | Present      | Not Listed    |

| Components              | CEPA Schedule I - Toxic Substances | CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting |
|-------------------------|------------------------------------|---|
| Benzalkonium Chloride   | Not listed                         | Not listed  |
| Water                   | Not listed                         | Not listed  |
| Ethyl Alcohol 200 proof | Not listed                         | Not listed  |

## EU Classification

### R-phrase(s)

R10 - Flammable.

R34 - Causes burns.

R50 - Very toxic to aquatic organisms.

R21/22 - Harmful in contact with skin and if swallowed.

### S -phrase(s)

S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S33 - Take precautionary measures against static discharges.

S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S37/39 - Wear suitable gloves and eye/face protection.

| Components              | Classification | Concentration Limits: | Safety Phrases |
|-------------------------|----------------|-----------------------|----------------|
| Benzalkonium Chloride   |                | No information        |                |
| Water                   |                | No information        |                |
| Ethyl Alcohol 200 proof | F; R11         | No information        | S7 S16         |

The product is classified in accordance with Annex VI to Directive 67/548/EEC

### Indication of danger:

T - Toxic

C - Corrosive.



## 16. OTHER INFORMATION

Product code: B1068

Product name: BENZALKONIUM  
CHLORIDE, 50 PERCENT SOLUTION,  
NF

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## 16. OTHER INFORMATION

**Preparation Date:** 5/07/2015  
**Revision Date:** 05/07/2015  
**Prepared by:** Sonia Owen

**Disclaimer:**

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

**End of Safety Data Sheet**