

# Material Safety Data Sheet

Benzalkonium chloride, 50 wt% aqueous solution

ACC# 87924

## Section 1 - Chemical Product and Company Identification

**MSDS Name:** Benzalkonium chloride, 50 wt% aqueous solution

**Catalog Numbers:** AC263820000, AC263820010

**Synonyms:** N-Alkyldimethylbenzyl ammonium chloride;  
Alkyl-benzyl-dimethylammonium chloride.

**Company Identification:**

SPE chemicals Co.,Ltd.

Room 1615, No: 345 Jinxiang Road, Pu dong, Shanghai, China 201206

**For information and emergencies call:** 86-21-51386134

## Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
7732-18-5	Water	50	231-791-2
8001-54-5	N-Alkyldimethylbenzyl ammonium chloride	50	unlisted

## Section 3 - Hazards Identification

### EMERGENCY OVERVIEW

Appearance: light yellow clear liquid.

**Danger!** Harmful in contact with skin and if swallowed. Causes burns by all exposure routes. Very toxic to aquatic organisms.

**Target Organs:** Respiratory system, gastrointestinal system, eyes, skin.

**Potential Health Effects**

**Eye:** Causes severe eye irritation and burns.

**Skin:** Harmful if absorbed through the skin. Causes skin burns.

**Ingestion:** Harmful if swallowed. Causes gastrointestinal tract burns.

**Inhalation:** Causes chemical burns to the respiratory tract. May be harmful if inhaled.

**Chronic:** Prolonged or repeated skin contact may cause dermatitis.

## Section 4 - First Aid Measures

**Eyes:** Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

**Skin:** Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.

**Ingestion:** Do not induce vomiting. Get medical aid immediately. Call a poison control center.

**Inhalation:** Get medical aid immediately. Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. 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.

**Notes to Physician:** Treat symptomatically and supportively.

## Section 5 - Fire Fighting Measures

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

**Extinguishing Media:** Use foam, dry chemical, or carbon dioxide.

**Flash Point:** 250 deg C ( 482.00 deg F)

**Autoignition Temperature:** Not applicable.

**Explosion Limits, Lower:**Not available.

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: 3; Flammability: 1; Instability: 0

## Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Wear a self contained breathing apparatus and appropriate personal protection. (See Exposure Controls, Personal Protection section). Provide ventilation. Do not let this chemical enter the environment.

## Section 7 - Handling and Storage

**Handling:** Do not get in eyes, on skin, or on clothing. Do not ingest or inhale. Use only in a chemical fume hood.

**Storage:** Store in a cool, dry place. Store in a tightly closed container. Corrosives area.

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use only under a chemical fume hood.

### Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Water	none listed	none listed	none listed
N-Alkyldimethylbenzyl ammonium chloride	none listed	none listed	none listed

**OSHA Vacated PELs:** Water: No OSHA Vacated PELs are listed for this chemical. N-Alkyldimethylbenzyl ammonium chloride: No OSHA Vacated PELs are listed for this chemical.

### Personal Protective Equipment

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:** Wear appropriate protective gloves to prevent skin exposure.

**Clothing:** Wear appropriate protective clothing to prevent skin exposure.

**Respirators:** A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

## Section 9 - Physical and Chemical Properties

**Physical State:** Clear liquid

**Appearance:** colorless - light yellow

**Odor:** Not available.

**pH:** 6.0 - 9.0 (10% aq.sol.)

**Vapor Pressure:** Not available.

**Vapor Density:** Not available.

**Evaporation Rate:**Not available.

**Viscosity:** 130 mPa @ 20 deg C

**Boiling Point:** > 100 deg C @ 760 mmHg

**Freezing/Melting Point:**Not available.

**Decomposition Temperature:**> 140 deg C

**Solubility:** Soluble.

**Specific Gravity/Density:**0.980

**Molecular Formula:**Not applicable.

**Molecular Weight:**Not available.

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable under normal temperatures and pressures.

**Conditions to Avoid:** Incompatible materials, excess heat.

**Incompatibilities with Other Materials:** Strong oxidizing agents, strong acids, strong bases, metals.

**Hazardous Decomposition Products:** Hydrogen chloride, nitrogen oxides, carbon monoxide, carbon dioxide.

**Hazardous Polymerization:** Will not occur.

## Section 11 - Toxicological Information

**RTECS#:**

**CAS# 7732-18-5:** ZC0110000

**CAS# 8001-54-5:** BO3150000

**LD50/LC50:**

**CAS# 7732-18-5:**

Oral, rat: LD50 = >90 mL/kg;

**CAS# 8001-54-5:**

Draize test, rabbit, eye: 100 ug;

Draize test, rabbit, eye: 1 mg/24H Severe;

Draize test, rabbit, eye: 10 mg Mild;

Draize test, rabbit, skin: 50 mg/24H Moderate;

Oral, rat: LD50 = 240 mg/kg;

**Carcinogenicity:**

**CAS# 7732-18-5:** Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**CAS# 8001-54-5:** Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**Epidemiology:** No information found

**Teratogenicity:** Intravaginal, rat: TDLo = 100 mg/kg (female 1 day(s) after conception) Effects on Embryo or Fetus - fetal death.; Intravaginal, rat: TDLo = 50 mg/kg (female 1 day(s) after conception) Effects on Embryo or Fetus - fetotoxicity (except death, e.g., stunted fetus).

**Reproductive Effects:** Intravaginal, rat: TDLo = 50 mg/kg (female 1 day(s) after conception) Fertility - litter size (e.g. # fetuses per litter; measured before birth).;

Intravaginal, rat: TDLo = 100 mg/kg (female 1 day(s) after conception) Fertility - post-implantation mortality (e.g. dead and/or resorbed implants per total number of implants).

**Mutagenicity:** DNA Repair: Bacillus subtilis = 50 ug/L.; Sister Chromatid Exchange: Hamster, Embryo = 1 mg/L.

**Neurotoxicity:** No information found

**Other Studies:**

## Section 12 - Ecological Information

**Ecotoxicity:** Bacteria: Phytobacterium phosphoreum: EC50 = 0.6 mg/L; 15 min; Microtox test at 15 癩 Fish: Striped bass: LC50 = 1.5 mg/L; 24-96 Hr; (fingerling) Static bioassay Fish: Striped bass: LC50 = 0.5 mg/L; 24-96 Hr; (larvae) Static bioassay No data available.

**Environmental:** No information available.

**Physical:** No information available.

**Other:** Do not empty into drains.

## Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.

**RCRA U-Series:** None listed.

## Section 14 - Transport Information

	US DOT	Canada TDG
<b>Shipping Name:</b>	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S (Benzalkonium chloride)	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S (Benzalkonium chloride)
<b>Hazard Class:</b>	8	8
<b>UN Number:</b>	UN3265	UN3265
<b>Packing Group:</b>	II	II

## Section 15 - Regulatory Information

### US FEDERAL

#### TSCA

CAS# 7732-18-5 is listed on the TSCA inventory.

CAS# 8001-54-5 is not listed on the TSCA inventory. It is for research and development use only.

#### Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

#### Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

#### Section 12b

None of the chemicals are listed under TSCA Section 12b.

#### TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

#### CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

#### SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

**Section 313** No chemicals are reportable under Section 313.

#### Clean Air Act:

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depletors.

This material does not contain any Class 2 Ozone depletors.

#### Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

#### OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

#### STATE

CAS# 7732-18-5 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

CAS# 8001-54-5 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

#### California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

## **European/International Regulations**

### **European Labeling in Accordance with EC Directives**

#### **Hazard Symbols:**

C N

#### **Risk Phrases:**

R 21/22 Harmful in contact with skin and if swallowed.

R 34 Causes burns.

R 50 Very toxic to aquatic organisms.

#### **Safety Phrases:**

S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S 61 Avoid release to the environment. Refer to special instructions /safety data sheets.

#### **WGK (Water Danger/Protection)**

CAS# 7732-18-5: No information available.

CAS# 8001-54-5: 3

#### **Canada - DSL/NDSL**

CAS# 7732-18-5 is listed on Canada's DSL List.

CAS# 8001-54-5 is listed on Canada's DSL List.

#### **Canada - WHMIS**

This product has a WHMIS classification of E, D1B.

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

#### **Canadian Ingredient Disclosure List**

## Section 16 - Additional Information

*The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall SPE be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.*