

**Safety Data Sheet**  
 According to Hazard Communication Standard (29 CFR 1910.1200)  
**Benzalkonium Chloride 80% (BAC80)**

Issue date: 06/18/2018

Version 1.0

Revision date: 06/18/2018

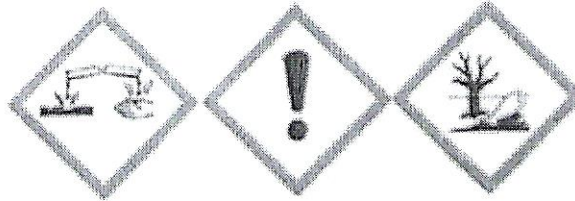
**1. Identification**

**Product name** Benzalkonium Chlorid, 80% (BAC80)  
**Synonyms** "  
**CAS #** See section 3  
**Product code** "  
**Product use** Water treatment chemicals, cationic surfactant  
**Manufacturer/Supplier**  
**Supplier** Hong Aun Kimia Sdn Bhd  
**Address:** No.420 Permatang Rawa,  
 14000 Bukit Mertajam,  
 S.Perai, Penang.  
**Contact person(E-mail):**  
**Telephone:** 04- 5403867/ 68  
**Fax:** 04-5403866

Emergency telephone Number:

**2. Hazard(s) Identification****GHS classification**

<b>Physical hazards</b>	Not classified	
<b>Health hazards</b>	Acute toxicity-Oral	Category 4
	Acute toxicity-Dermal	Category 4
	Acute toxicity- Inhalation	Category 4
	Skin corrosion/irritation	Category 1 B
<b>Environmental hazards</b>	Hazardous to the aquatic environment (ACUTE)	Category 1

**GHS label elements****Hazard Pictograms****Signal word**

Danger

**Hazard statement**

Harmful if swallowed  
 Harmful in contact with skin.  
 Harmful if inhaled  
 Causes severe skin burns and eye damage.  
 Very toxic to aquatic life

**Precautionary statement****Prevention**

Do not breathe dust/fume/gas/mist/vapors/spray.  
 Wash hands thoroughly after handling  
 Do not eat, drink or smoke when using this product.

Response	<p>Avoid release to the environment.</p> <p>Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>If swallowed: Rinse mouth. Do NOT induce vomiting.</p> <p>If swallowed: Call a poison center/doctor if you feel unwell.</p> <p>If on skin: Wash with plenty of water.</p> <p>If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.</p> <p>If inhaled: Remove person to fresh air and keep comfortable for breathing.</p> <p>If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>Immediately call a poison center /doctor.</p> <p>Rinse mouth.</p> <p>Take off contaminated clothing and wash it before reuse.</p> <p>Wash contaminated clothing before reuse.</p> <p>Collect spillage.</p>
Storage	Store locked up.
Disposal	Dispose of contents/container in accordance with local regulation.

### 3. Composition / information on Ingredients

Components	CAS#	Percent
Dodecyl Dimethyl Benzyl Ammonium Chloride	8001-54-5 / 63449-41-2	>80%
water	7732-18-5	5-15%
alcohol	67-56-1	5-15%

### 4. First-aid Measures

#### First aid procedures

##### Eye contact

Continue rinsing eyes during transport to hospital. Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

##### Skin contact

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

##### Inhalation

If breathed in, move person into fresh air. If not breathing give artificial respiration. Consult a physician.

##### Ingestion

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

#### Notes to physician

Treat symptoms.

### 5. Fire-fighting measures

#### Flammable properties

Not available

#### Extinguishing media

##### Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

##### Unsuitable extinguishing media

Not available

#### Firefighting equipment/instructions

Fire-fighters wear a self-contained breathing apparatus (SCBA) with a full face-piece operated in pressure-demand or positive-pressure mode.

#### Hazardous combustion products

Carbon oxides, nitrogen oxides (NOx), Hydrogen chloride gas.



## 6. Accidental release measures

### Personal precautions

Use personal protective equipment. Avoid breathing vapors. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. For personal protection see section 8.

### Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

### Methods for cleaning up

Contain with absorbent material (e.g. sand, silica gel, acid binder, general purpose binder, sawdust). Keep in suitable, closed containers for disposal.

## 7. Handling and storage

### Handling

Avoid contact with skin and eyes. Avoid inhalation of vapor. Keep away from sources of ignition - No smoking. Take measures to prevent the building up of electrostatic charge. For precautions see section 2.2.

### Storage

Keep container tightly closed in a cool, well-ventilated place.

## 8. Exposure controls / personal protection

### Control parameters:

#### OCCUPATIONAL EXPOSURE LIMITS (OEL)

##### INGREDIENT DATA:

Source	ingredient	TWA	STEL
US OSHA Permissible Exposure Levels (PELs) Table Z1	alcohol	200 mg/m <sup>3</sup> / 200 ppm	Not Available
US ACGIH Threshold Limit Values (TLV)	alcohol	200 ppm	250 ppm
US NIOSH Recommended Exposure Limits (RELs)	alcohol	200 mg/m <sup>3</sup> / 200 ppm	325 mg/m <sup>3</sup> / 250 ppm

##### EMERGENCY LIMITS:

Ingredient	Original IDLH	Revised IDLH
alcohol	25 000 ppm	5 000 ppm

### Exposure controls:

#### Appropriate engineering controls:

Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. If user operations generate vapor, use ventilation to keep exposure to airborne contaminants below the exposure limit.

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

##### Eye / face protection

Face shield and safety glasses.

##### Skin protection

Handle with gloves. Choose body protection according to the amount and concentration of the dangerous substance at the work place.

##### Respiratory protection

In case of inadequate ventilation wear respiratory protection. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

##### General hygiene

##### considerations

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Keep away from foodstuffs, beverages and food. Immediately remove all soiled and contaminated clothing.

## 9. Physical and chemical properties



<b>Appearance</b>	
Physical state	Liquid
Form	Liquid
Color	Colorless to yellowish transparent
Odor	Light
Odor threshold	Not available
pH	5.0-8.0 (1% water solution)
Vapor pressure	169.27 hPa (25 °C) (CAS# 67-56-1)
Melting point/Freezing point	-97.8 °C (CAS# 67-56-1)
Initial boiling point and boiling range	64.7 °C (CAS# 67-56-1)
Flash point	9.7 °C (1013hpa)(CAS# 67-56-1)
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Explosion limits	Not available
Vapor density	Not available
Relative density	0.79-0.8 (20 °C) (CAS# 67-56-1)
Solubility (water)	>= 1000 g/L (20 °C) (CAS# 67-56-1)
Partition coefficient	log Pow=0.77 (CAS# 67-56-1)
Auto-ignition temperature	455 °C (1013hpa)(CAS# 67-56-1)
Decomposition temperature	Not available
Specific gravity	Not available
Density	Not available
Flammability limits in air, upper, % by volume	Not available
Flammability limits in air, lower, % by volume	Not available
VOC	Not available
Percent volatile	Not available
Other data	
Viscosity	0.544-0.59 mPa s (dynamic) (25 °C) (CAS# 67-56-1)

## 10. Stability and reactivity

Chemical stability	Material is stable under normal conditions.
Conditions to avoid	Incompatible materials. Electrostatic discharges. Exposure to direct sunlight and high temperatures
Incompatible materials	Concentrated nitric acid, strong oxidizing agents, alkaline and alkaline earth metals.
Hazardous decomposition products	Carbon oxides, nitrogen oxides (NOx), Hydrogen chloride gas
Possibility of hazardous reactions	No decomposition when used as directed

## 11. Toxicological Information

### Toxicokinetics, metabolism and distribution:

Non-human toxicological data:	Not available
Information on toxicological effects:	
Acute toxicity:	
LD50(Oral, Rat):	Not available
LD50(Dermal, Rabbit):	Not available



LC50(Inhalation, Rat):	Not available
Skin corrosion/irritation:	Causes severe skin burns and eye damage
Serious eye damage/irritation:	Not classified
Respiratory or skin sensitization:	Not classified
Germ cell mutagenicity:	Not classified
Carcinogenicity:	Not classified
Reproductive toxicity:	Not classified
STOT- single exposure:	Not classified
STOT-repeated exposure:	Not classified
Aspiration hazard:	Not classified

## 12. Ecological Information

### Toxicity:

methanol alcohol (CAS# 67-56-1)

Acute toxicity		Time	Species	Method	Evaluation	Remarks
LC50	15400 mg/L	96h	Fish	OECD 203	N/A	N/A
EC50	18250 mg/L	96h	Daphnia	OECD 202	N/A	N/A
EC50	ca. 23000 mg/L	96h	Algae	OECD 201	N/A	N/A

Persistence and degradability:	Not available
Bioaccumulative potential:	Not available
Mobility in soil:	Not available
Results of PBT&vPvB assessment:	Not available
Other adverse effects:	No known significant effects or critical hazards.

## 13. Disposal considerations

Disposal instructions

Dispose of contents/container in accordance with local/regional/national/international regulations

Contaminated packaging

Since emptied containers may retain product residue, follow label warnings even after container is emptied.

## 14. Transport Information

### DOT

Basic shipping requirements:

UN number

UN3265

Proper shipping name

Corrosive liquid, acidic, organic, n.o.s. ( contains Dodecyl Dimethyl Benzyl Ammonium Chloride)

Hazard class

8

Packing group

II

Environmental hazards

Yes

### IATA

UN number

UN3265

UN proper shipping name

Corrosive liquid, acidic, organic, n.o.s. ( contains Dodecyl Dimethyl Benzyl Ammonium Chloride)

Transport hazard class(es)

8

Packing group

II



4

Environmental hazards	Yes
IMDG	
UN number	UN3265
UN proper shipping name	Corrosive liquid, acidic, organic, n.o.s ( contains Dodecy Dimethyl Benzyl Ammonium Chloride)
Transport hazard class(es)	8
Packing group	II
Environmental hazards	Yes

### 15. Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture:

Dodecy Dimethyl Benzyl Ammonium Chloride (139-07-1) is found on the following regulatory lists	"US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory" List.
water (7732-18-6) is found on the following regulatory lists	"US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory" List.
methanol alcohol (67-58-1) is found on the following regulatory lists	"US - Hawaii Air Contaminant Limits" List. "US - Idaho - Limits for Air Contaminants" List. "US - California Proposition 65 - Reproductive Toxicity" List. "US - California - Proposition 65 - Priority List for the Development of MACILs for Chemicals Causing Reproductive Toxicity" List. "US - Washington Toxic air pollutants and their ASIL, SQER and de minimis emission values" List. "US - Alaska Limits for Air Contaminants" List. "US Spacecraft Maximum Allowable Concentrations (SMACs) for Airborne Contaminants" List. "US - Wyoming Toxic and Hazardous Substances Table Z1 Limits for Air Contaminants" List. "US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory" List.

### 16. Other Information, including date of preparation or last revision

HMIS ratings	Health 3 Flammability 1 Physical hazard: 0
NFPA ratings	Health 3 Flammability 1 Instability: 0
Disclaimer	The information in the sheet was written based on the best knowledge and experience currently available.
Issue date	06-18-2016

