

# MATERIAL SAFETY DATA SHEET (SDS/MSDS)

## **BENZALKONIUM CHLORIDE 50% W/V AQUEOUS SOLUTION EXTRA PURE**

CAS-No.: 63449-41-2

Product Code: 00367

Molecular Formula:  $C_{22}H_{40}ClN$

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

**1.1. Product identifier**

Product form : Mixture  
Trade name : Benzalkonium Chloride 50% W/v Aqueous Solution Extra Pure  
CAS-No. : 63449-41-2

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

**1.2.1. Relevant identified uses**

Industrial/Professional use spec : Industrial For professional use only

**1.2.2. Uses advised against**

No additional information available

**1.3. Details of the supplier of the safety data sheet**

Company : Chemnovo Synthesis Pvt Ltd.  
N-226 Near Kumbhavali Naka  
Tarapur MIDC, Boisar-401 506  
Palghar, Maharashtra  
Telephone : +91 7400096089  
Email: export@chemnovo.in

**1.4. Emergency telephone number**

Emergency number : + 91 7400096089 (9:00am - 6:00 pm)

**SECTION 2: Hazards identification**

**2.1. Classification of the substance or mixture**

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute toxicity (oral), H302  
Category 4  
Skin corrosion/irritation, H314  
Category 1B  
Specific target organ H335  
toxicity – Single  
exposure, Category 3,  
Respiratory tract irritation  
Hazardous to the aquatic H400  
environment – Acute  
Hazard, Category 1

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

**2.2. Label elements**

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

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Hazard pictograms (CLP) :



GHS05

GHS07

GHS09

Signal word (CLP) :

Danger

Hazard statements (CLP) :

H302 - Harmful if swallowed.

H314 - Causes severe skin burns and eye damage.

H400 - Very toxic to aquatic life.

Precautionary statements (CLP) :

P260 - Do not breathe dust/fume/gas/mist/vapours/spray.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P301+P312 - IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P310 - Immediately call a POISON CENTER/doctor

**2.3. Other hazards**

No additional information available

**SECTION 3: Composition/information on ingredients**

**3.1. Substance**

Not applicable

**3.2. Mixture**

Name	Product identifier	%	Classification according to Regulation (EC) No.1272/2008 [CLP]
Benzalkonium Chloride		49.5 - 50.5	Not classified
Water AR	(CAS-No.) 7732-18-5 (EC-No.) 231-791-2	50 - 50.5	Not classified

**SECTION 4: First aid measures**

**4.1. Description of first aid measures**

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First-aid measures after inhalation	:	Remove person to fresh air and keep comfortable for breathing. Give oxygen or artificial respiration if necessary. If you feel unwell, seek medical advice.
First-aid measures after skin contact	:	Wash skin with plenty of water. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	:	Remove contact lenses, if present and easy to do. Continue rinsing. Rinse cautiously with water for several minutes. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	:	Rinse mouth out with water. If you feel unwell, seek medical advice.

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

Symptoms/effects	:	Causes severe skin burns and eye damage.
Symptoms/effects after ingestion	:	Harmful if swallowed.

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

Treat symptomatically.

**SECTION 5: Firefighting measures**

**5.1. Extinguishing media**

Suitable extinguishing media	:	dry chemical powder, alcohol-resistant foam, carbon dioxide (Co2).
Unsuitable extinguishing media	:	Do not use extinguishing media containing water.

**5.2. Special hazards arising from the substance or mixture**

No additional information available

**5.3. Advice for firefighter**

Protection during firefighting	:	Do not attempt to take action without suitable protective equipment.
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**SECTION 6: Accidental release measures**

**6.1. Personal precautions, protective equipment and emergency procedures**

**6.1.1. For non-emergency personnel**

Emergency procedures	:	Avoid contact with skin, eyes and clothing.
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**6.1.2. For emergency responders**

Protective equipment	:	Use personal protective equipment as required.
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**6.2. Environmental precautions**

Avoid release to the environment.

**6.3. Methods and material for containment and cleaning up**

Methods for cleaning up	:	Clean contaminated surfaces with an excess of water.
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**6.4. Reference to other sections**

No additional information available

**SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

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Precautions for safe handling	:	Avoid contact with skin and eyes.
Hygiene measures	:	Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

**7.2. Conditions for safe storage, including any incompatibilities**

Storage conditions	:	Store in a well-ventilated place. Keep container tightly closed.
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**7.3. Specific end use(s)**

No additional information available

**SECTION 8: Exposure controls/personal protection**

**8.1. Control parameters**

No additional information available

**8.2. Exposure controls**

Hand protection	:	Protective gloves
Eye protection	:	Chemical goggles or safety glasses
Skin and body protection	:	Wear suitable protective clothing
Respiratory protection	:	Wear respiratory protection.

**SECTION 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

Physical state	:	Liquid
Colour	:	colorless or slight yellow.
Odour	:	No data available
Odour threshold	:	No data available
pH	:	No data available
Relative evaporation rate (butylacetate=1)	:	No data available
Melting point	:	No data available
Freezing point	:	No data available
Boiling point	:	No data available
Flash point	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	No data available
Vapour pressure	:	No data available
Relative vapour density at 20 °C	:	No data available
Relative density	:	No data available
Solubility	:	No data available
Log Pow	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
Explosive properties	:	No data available
Oxidising properties	:	No data available
Explosive limits	:	No data available

**9.2. Other information**

No additional information available

**SECTION 10: Stability and reactivity**

**10.1. Reactivity**

No additional information available

**10.2. Chemical stability**

Stable under normal conditions.

**10.3. Possibility of hazardous reactions**

No additional information available

**10.4. Conditions to avoid**

Direct sunlight.

**10.5. Incompatible materials**

No additional information available

**10.6. Hazardous decomposition products**

No additional information available

**SECTION 11: Toxicological information**

**11.1. Information on toxicological effects**

Acute toxicity : Oral: Harmful if swallowed.

ATE CLP (oral)	500 mg/kg bodyweight
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Skin corrosion/irritation : Causes severe skin burns and eye damage.

Serious eye damage/irritation : Serious eye damage, category 1, implicit

Respiratory or skin sensitisation : 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

**SECTION 12: Ecological information**

**12.1. Toxicity**

No additional information available

**12.2. Persistence and degradability**

No additional information available

**12.3. Bioaccumulative potential**

No additional information available

**12.4. Mobility in soil**

No additional information available

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**12.5. Results of PBT and vPvB assessment**

No additional information available

**12.6. Other adverse effects**

No additional information available

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

No additional information available

**SECTION 14: Transport information**

In accordance with ADR / RID / IMDG / IATA /AND

**14.1. UN number**

UN-No. (ADR)	:	3265
UN-No. (IMDG)	:	3265
UN-No. (IATA)	:	3265
UN-No. (ADN)	:	3265
UN-No. (RID)	:	3265

**14.2. UN proper shipping name**

Proper Shipping Name (ADR)	:	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
Proper Shipping Name (IMDG)	:	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
Proper Shipping Name (IATA)	:	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
Proper Shipping Name (ADN)	:	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
Proper Shipping Name (RID)	:	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
Transport document description (ADR) :		UN 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S., 8, II, (E), ENVIRONMENTALLY HAZARDOUS
Transport document description (IMDG)		UN 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S., 8, II, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS
Transport document description (IATA) :		UN 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S., 8, II, ENVIRONMENTALLY HAZARDOUS
Transport document description (ADN) :		UN 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S., 8, II, ENVIRONMENTALLY HAZARDOUS
Transport document description (RID) :		UN 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S., 8, II, ENVIRONMENTALLY HAZARDOUS

**14.3. Transport hazard class(es)**

ADR

Transport hazard class(es) (ADR)	:	8
Danger labels (ADR)	:	8

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**IMDG**

Transport hazard class(es) (IMDG) : 8

Danger labels (IMDG) : 8



**IATA**

Transport hazard class(es) (IATA) : 8

Hazard labels (IATA) : 8



**AND**

Transport hazard class(es) (ADN) : 8

Danger labels (AND) : 8

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RID

Transport hazard class(es) (RID) : 8  
 Danger labels (RID) : 8



**14.4. Packing group**

Packing group (ADR) : II  
 Packing group (IMDG) : II  
 Packing group (IATA) : II  
 Packing group (ADN) : II  
 Packing group (RID) : II

**14.5. Environmental hazards**

Dangerous for the environment : Yes  
 Marine pollutant : Yes  
 Other information : No supplementary information available

**14.6. Special precautions for user**

- Overland transport

Classification code (ADR) : C3  
 Special provisions (ADR) : 274  
 Limited quantities (ADR) : 1I  
 Excepted quantities (ADR) : E2  
 Packing instructions (ADR) : P001, IBC02  
 Mixed packing provisions (ADR) : Mp15  
 Portable tank and bulk container instructions (ADR) : T11

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Portable tank and bulk container special

provisions (ADR)	:	TP2, Tp27
Tank code (ADR)	:	L4BN
Vehicle for tank carriage	:	AT
Transport category (ADR)	:	2
Hazard identification number (Kemler No.)	:	80
Orange plates	:	

**80**

**3265**

Tunnel restriction code (ADR)	:	E
EAC code	:	2X
APP code	:	B
- Transport by sea		
Special provisions (IMDG)	:	274
Packing instructions (IMDG)	:	P001
IBC packing instructions (IMDG)	:	IBC02
Tank instructions (IMDG)	:	T11
Tank special provisions (IMDG)	:	TP2, Tp27
EmS-No. (Fire)	:	F-A
EmS-No. (Spillage)	:	S-B
Stowage category (IMDG)	:	B
Stowage and handling (IMDG)	:	Sw2
Properties and observations (IMDG)	:	Causes burns to skin, eyes and mucous membranes.
- Air transport		
PCA Excepted quantities (IATA)	:	E2
PCA Limited quantities (IATA)	:	Y840
PCA limited quantity max net quantity (IATA)	:	0.5L
PCA packing instructions (IATA)	:	851
PCA max net quantity (IATA)	:	1L
CAO packing instructions (IATA)	:	855
CAO max net quantity (IATA)	:	30L
Special provisions (IATA)	:	A3, A803
ERG code (IATA)	:	8L
- Inland waterway transport		
Classification code (ADN)	:	C3
Special provisions (ADN)	:	274
Limited quantities (ADN)	:	1 L
Excepted quantities (ADN)	:	E2
Carriage permitted (AND)	:	T

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Equipment required (ADN)	:	PP, EP
Number of blue cones/lights (ADN)	:	0
- Rail transport		
Classification code (RID)	:	C3
Special provisions (RID)	:	274
Limited quantities (RID)	:	1L
Excepted quantities (RID)	:	E2
Packing instructions (RID)	:	P001, IBC02
Mixed packing provisions (RID)	:	Mp15
Portable tank and bulk container instructions (RID)	:	T11
Portable tank and bulk container special provisions (RID)	:	TP2, Tp27
Tank codes for RID tanks (RID)	:	L4BN
Transport category (RID)	:	2
Colis express (express parcels) (RID)	:	Ce6
Hazard identification number (RID)	:	80

**14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable

**SECTION 15: Regulatory information**

**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

**15.1.1. EU-Regulations**

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

**15.1.2. National regulations**

**Germany**

Reference to AwSV : Water hazard class (WGK) 3, Highly hazardous to water (Classification according to AwSV, Annex 1)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

**Netherlands**

SZW-lijst van kankerverwekkende stoffen : None of the components are listed

SZW-lijst van mutagene stoffen : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : None of the components are listed

**Denmark**

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Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product

**15.2. Chemical safety assessment**  
No additional information available

**SECTION 16: Other information**

Full text of R-, H- and EUH-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Skin Corr. 1	Skin corrosion/irritation, Category 1
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H400	Very toxic to aquatic life.

**Further information**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Chemnovo Synthesis Pvt Ltd. and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See [www.chemnovo.in](http://www.chemnovo.in) for additional terms and conditions of sale.

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