



# MATERIAL SAFETY DATA SHEET (MSDS)

Product Name:	BENZALKONIL 80E	Document code:	PSJ-RD-FR-22-00
Chemical name:	n-Alkyl Dimethyl Benzyl Ammonium Chloride	Revision number:	00
Chemical class:	Cationic	Revision date:	

## COMPANY IDENTIFICATION

Manufacturer: PADIDEH SHIMI JAM CO.

Tell: +98(21)88580000

Address: No.16, Western Fourth Golbarg St., Baharestan St., Dadman Blvd., TEHRAN, IRAN

## HAZARDS IDENTIFICATION

Physical hazards	Flammable liquids	Category 3
Health hazards	Acute toxicity, oral	Category 4
	Acute toxicity, inhalation	Category 2
	Skin corrosion/irritation	Category 1
	Serious eye damage/eye irritation	Category 1
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 1
	Hazardous to the aquatic environment, long-term hazard	Category 1
OSHA defined hazards	Not classified	

### Label elements:



Signal word	Danger
Hazard statement	Flammable liquid and vapor. Harmful if swallowed. Causes severe skin burns and eye damage. Fatal if inhaled. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

### Precautionary statement

Prevention	Keep container tightly closed. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only outdoors or in a well-ventilated area. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. Wear respiratory protection.
Response	If swallowed: Immediately call a poison center/doctor. If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. 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/doctor. Specific treatment is urgent (see this label). Wash contaminated clothing before reuse. In case of fire: Use appropriate media to extinguish. Collect spillage.
Storage	Keep cool at 10 - 40° C. Store in a well-ventilated place. Keep container tightly closed. Store locked up.
Disposal	Dispose of contents/container in accordance with local /regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	None





# MATERIAL SAFETY DATA SHEET (MSDS)

<b>Product Name:</b>	BENZALKONIL 80E	<b>Document code:</b>	PSJ-RD-FR-22-00
<b>Chemical name:</b>	n-Alkyl Dimethyl Benzyl Ammonium Chloride	<b>Revision number:</b>	00
<b>Chemical class:</b>	Cationic	<b>Revision date:</b>	

## FIRST AID MEASURES

**Eyes:** Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.

**Skin:** Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.

**Inhalation :** Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim 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. Call a physician or poison control center immediately.

**Ingestion:** Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting.

## FIRE FIGHTING MEASURES

### Suitable Extinguishing media :

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

### Unsuitable extinguishing media :

Do not use water jet as an extinguisher, as this will spread the fire.

### Specific hazards arising from the chemical :

Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed.

### Special protective equipment and precautions :

Firefighters should wear full protective clothing including self contained breathing apparatus

## ACCIDENTAL RELEASE MEASURES

### Personal precautions

Immediately evacuate personnel to safe areas. Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire. Do not breathe vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained.

### Methods for cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Prevent product from entering drains. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination

### Environmental precautions :

Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.





# MATERIAL SAFETY DATA SHEET (MSDS)

<b>Product Name:</b>	BENZALKONIL 80E	<b>Document code:</b>	PSJ-RD-FR-22-00
<b>Chemical name:</b>	n-Alkyl Dimethyl Benzyl Ammonium Chloride	<b>Revision number:</b>	00
<b>Chemical class:</b>	Cationic	<b>Revision date:</b>	

## HANDLING AND STORAGE

### Precautions for safe handling :

Vapors may form explosive mixtures with air. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not breathe vapor. Do not get this material in contact with eyes. Do not get this material in contact with skin. Do not taste or swallow. Avoid prolonged exposure. Do not get this material on clothing. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. When using, do not eat, drink or smoke. Wash hands thoroughly after handling. Avoid release to the environment. Do not empty into drains.

### Conditions for safe storage, including :

Store the material in a clean, dry place at 10 - 40°C away from any incompatibilities direct heat and sunlight. Once the carboy is opened, ensure airtight closure after usage. In original sealed containers, when stored as suggested, the shelf life of the product is at least two years Stacking of carboys: During storage, single carboy (Palletized and non-palletized) During transport, single carboy (non-palletized) and palletized 1+1 Stacking of IBC: 1+1 both during storage and transport

**Suitable packing materials :** HMHDPE carboys / IBC

**Unsuitable packing materials :** Stainless steel / Mild steel

### Control parameters

#### Occupational exposure limits:

##### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Ethanol (CAS 64-17-5)	PEL	1900 mg/m <sup>3</sup> 1000 ppm

##### US. ACGIH Threshold Limit Values

Components	Type	Value
Ethanol (CAS 64-17-5)	STEL	1000 ppm

##### US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Ethanol (CAS 64-17-5)	TWA	1900 mg/m <sup>3</sup> 1000 ppm

Biological limit values	No biological exposure limits noted for the ingredient(s).
Appropriate engineering controls	Ensure adequate ventilation, especially in confined areas. Eye wash facilities and emergency shower must be available when handling this product.
Individual measures such as Eye/face protection:	Wear safety glasses with side shields (or goggles) and a face shield. Wear a full-face respirator, if needed.
Skin protection	Wear appropriate chemical resistant gloves.
Other	Wear appropriate chemical resistant clothing. Wear protective gloves.
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment. Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## EXPOSURE CONTROLS / PERSONAL PROTECTION





# MATERIAL SAFETY DATA SHEET (MSDS)

<b>Product Name:</b>	BENZALKONIL 80E	<b>Document code:</b>	PSJ-RD-FR-22-00
<b>Chemical name:</b>	n-Alkyl Dimethyl Benzyl Ammonium Chloride	<b>Revision number:</b>	00
<b>Chemical class:</b>	Cationic	<b>Revision date:</b>	

## PHYSICAL & CHEMICAL PROPERTIES

### Appearance

Physical state	Liquid.
Form	Liquid.
Color	Pale straw
Odor	Not available
Odor threshold	Not available.
pH	6 - 8.5 (10% Aqueous Solution)
Melting point/freezing point	Not available.
Initial boiling point and boiling range	180 °F (82.22 °C)
Flash point	110.0 °F (43.3 °C)
Flammability (solid, gas)	Not available.

### Upper/lower flammability or explosive limits

Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not determined or unknown
Vapor density Estimated heavier than air Relative density	Not available.
Solubility(ies) Solubility (water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.

### Other information

Density	7.76 lb/gal @ 25C
---------	-------------------

## STABILITY & REACTIVITY

### Reactivity :

The product is stable and non-reactive under normal conditions of use, storage and transport.

### Chemical stability :

Material is stable under normal conditions.

### Possibility of hazardous reactions :

No dangerous reaction known under conditions of normal use.

### Conditions to avoid :

Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials

### Incompatible materials :

Strong oxidizing agents. Anionic surfactants

### Hazardous decomposition products :

Upon decomposition, this product may yield oxides of nitrogen and ammonia, carbon dioxide, carbon monoxide and other low molecular weight hydrocarbons.





# MATERIAL SAFETY DATA SHEET (MSDS)

<b>Product Name:</b>	BENZALKONIL 80E	<b>Document code:</b>	PSJ-RD-FR-22-00
<b>Chemical name:</b>	n-Alkyl Dimethyl Benzyl Ammonium Chloride	<b>Revision number:</b>	
<b>Chemical class:</b>	Cationic	<b>Revision date:</b>	

## TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

Inhalation	Not likely, due to the form of the product
Skin contact	Causes severe skin burns
Eye contact	Causes serious eye damage.
Ingestion	Harmful if swallowed. Causes digestive tract burns.
Symptoms related to the physical, chemical and toxicological characteristics	Burning pain and severe corrosive skin damage. Causes serious eye damage.

### Information on toxicological effects

Acute toxicity	Fatal if inhaled. Harmful if swallowed.
----------------	---

### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Ethanol (CAS 64-17-5)	PEL	1900 mg/m3 1000 ppm

### US. ACGIH Threshold Limit Values

Components	Type	Value
Ethanol (CAS 64-17-5)	STEL	1000 ppm

### US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Ethanol (CAS 64-17-5)	TWA	1900 mg/m3 1000 ppm

Skin corrosion/irritation	Causes severe skin burns and eye damage.
Serious eye damage/eye irritation	Causes serious eye damage.

### Respiratory or skin sensitization

Respiratory sensitization	Not available.
Skin sensitization	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
IARC Monographs. Overall Evaluation of Carcinogenicity	Not listed.
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)	Not regulated.
US. National Toxicology Program (NTP) Report on Carcinogens	Not listed.
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Not applicable.
Specific target organ toxicity - repeated exposure	Not applicable.
Aspiration hazard	Not applicable.





# MATERIAL SAFETY DATA SHEET (MSDS)

<b>Product Name:</b>	BENZALKONIL 80E	<b>Document code:</b>	PSJ-RD-FR-22-00
<b>Chemical name:</b>	n-Alkyl Dimethyl Benzyl Ammonium Chloride	<b>Revision number:</b>	
<b>Chemical class:</b>	Cationic	<b>Revision date:</b>	

## ECOLOGICAL INFORMATION

### Aquatic

Acute			
Algae	EC50	Algae	0.063 mg/l, 96 hours
Crustacea	LC50	Daphnia	0.0058 - 0.016 mg/l, 48 hours
Fish	LC50	Fish	0.028 ppm, 96 hours

Ecotoxicity	Very toxic to aquatic life with long lasting effects
Persistence and degradability	Readily biodegradable.
Bioaccumulative potential	No data available

### Partition coefficient n-octanol / water (log Kow)

Ethanol	-0.31
Mobility in soi	No data available
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

## DISPOSAL CONSIDERATIONS

Disposal instructions	Dispose of contents/container in accordance with local/regional/ national/ international regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

## TRANSPORT INFORMATION

<b>UN Number</b>	UN2920
<b>UN proper shipping name</b>	CORROSIVE LIQUID, N.O.S. (Quaternary ammonium chloride, Ethanol)
<b>class(es)</b>	2/3
<b>Special precautions for user</b>	Not available.



## REGULATORY INFORMATION

US federal regulations	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
------------------------	--

### Toxic Substances Control Act (TSCA)

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)	Not regulated
CERCLA Hazardous Substance List (40 CFR 302.4)	Not listed.
SARA 304 Emergency release notification	Not regulated
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1052)	Not regulated
SARA 302 Extremely hazardous substance Superfund Amendments and Reauthorization Act of 1986 (SARA)	Not listed.
SARA 311/312 Hazardous chemical	Yes
Classified hazard categories	Flammable (gases, aerosols, liquids, or solids) Acute toxicity (any route of exposure) Skin corrosion or irritation Serious eye damage or eye irritation







# MATERIAL SAFETY DATA SHEET (MSDS)

<b>Product Name:</b>	BENZALKONIL 80E	<b>Document code:</b>	PSJ-RD-FR-22-00
<b>Chemical name:</b>	n-Alkyl Dimethyl Benzyl Ammonium Chloride	<b>Revision number:</b>	
<b>Chemical class:</b>	Cationic	<b>Revision date:</b>	

## OTHER INFORMATION

### Source of information :

In-house and literature

### Disclaimer

Terms and Conditions. This MSDS is designed only as guidance for the products to which it applies. To the greatest extent permitted by applicable law, nothing contained herein creates any legal obligation including contractual obligations, expressed or implied warranties, including any warranties of merchantability or fitness for particular purpose; or confers any intellectual property rights, including rights to use trademarks or a license to use patents, issued or pending. The information contained herein is based on the manufacturer's own study and the work of others, and is subject to change at any time without further notice. There is no warranty, expressed or implied, as to the accuracy, completeness or adequacy of the information contained herein, and neither the provider nor the manufacturer (nor the agents, directors, officers, contractors or employees of either) are liable to any party for any damages of any nature, including direct, special or consequential damages arising out of or in connection with the accuracy, completeness, adequacy or furnishing of any information in this MSDS, or in any other way related (directly or indirectly) to this MSDS. The receipt and use of this information constitutes consent to these terms and conditions.

**Issue date:** 10 OCTOBER 2021

