



济南久安酯类化工有限公司

JINAN JIUAN ESTER CHEMICAL CO., LTD
CHEMICAL INDUSTRIAL PARK, ZHANGQIU CITY, SHANDONG, CHINA

SDS-0111E-2016


SAFETY DATA SHEET

Choline Chloride

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product identifier	Choline Chloride
Chemical name	(2-Hydroxyethyl)trimethylammonium chloride
Company name	Jinan Jiuan Ester Chemical Co., Ltd.
Address	Chemical Industrial Park, Zhangqiu City, Shandong Province, China
Telephone	0086-531-82687186
Website	www.pengbobio.com
E-mail	sales@pengbobio.com

SECTION 2. HAZARDS IDENTIFICATION

Physical hazards	Not classified.
Health hazards	Acute toxicity, Oral: Acute Tox. 4 Serious eye damage : Eye Irrit. 2 Skin corrosion/Irritation: Skin Irrit. 2 Specific target organ toxic - repeated contact : STOT RE 2
OSHA hazard(s)	Not classified.
GHS Label elements	
Hazard symbol	
Signal word	Warning
Hazard statement	H315 Causes skin irritation. H319 Causes serious eye irritation H335 May cause respiratory irritation
Precautionary statement	P261 Avoid breathing dust/fume/gas/mist/vapours/spray. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
RS	
Hazard symbol(s)	Xi
R-phrases(s)	R36/37/38
S-phrases(s)	S26;S36

Hazard(s) not otherwise Not classified.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Non-hazardous components

Chemical name	Molecular formula	M.W.	EINECS No.	CAS number	Weight percent
Choline Chloride	$(\text{CH}_3)_3\text{N}(\text{Cl})\text{CH}_2\text{CH}_2\text{OH}$	139.62	200-655-4	67-48-1	99

SECTION 4. FIRST AID MEASURES

Inhalation

If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing.

Call a physician if symptoms develop or persist.

Skin contact

Rinse skin with water/shower. Get medical attention if irritation develops and persists

Eye contact

Rinse with water. Get medical attention if irritation develops and persists.

Ingestion

Rinse mouth. If ingestion of a large amount does occur, call a poison control center immediately.

Most important symptoms /effects, acute and delayed

Irritation of eyes and mucous membranes.

Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically.

General information

Remove from exposure. Remove contaminated clothing. For treatment advice, seek guidance from an occupational health physician or other licensed health-care provider familiar with workplace chemical exposures. In the United States, the national poison control center phone number is 1-800-222-1222. If person is not breathing, give artificial respiration. If breathing is difficult, give oxygen if available. Persons developing serious hypersensitivity (anaphylactic) reactions must receive immediate medical attention.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media

Use fire-extinguishing media appropriate for surrounding materials. Water. Foam. Dry chemical or CO_2 .

Unsuitable extinguishing media

None known.

Specific hazards arising from the chemical

No unusual fire or explosion hazards noted

Special protective equipment and precautions for firefighters

Wear suitable protective equipment.

Fire-fighting equipment/instructions

Use water spray to cool unopened containers. As with all fires, evacuate personnel to a safe area. Firefighters should use self-contained breathing equipment and protective clothing.

Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Avoid inhalation of dust from the spilled material. Wear appropriate personal protective equipment.
Methods and materials for containment and cleaning up	Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid the generation of dusts during clean-up. For waste disposal, see section 13 of the MSDS. Clean surface thoroughly to remove residual contamination.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling	Clean equipment and work surfaces with suitable detergent or solvent after use. Remove contaminated clothing, gloves and wash before reuse. Wash hands and other exposed skin thoroughly. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation.
Conditions for safe storage, including any incompatibilities	Keep container tightly closed in a dry and well-ventilated place.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Biological limit values	No biological exposure limits noted for the ingredient(s).
Exposure guidelines	No exposure standards allocated.
Appropriate engineering controls	Airborne exposure should be controlled primarily by engineering controls such as general dilution ventilation, local exhaust ventilation, or process enclosure.
Respiratory protection	Where respirators are deemed necessary to reduce or control occupational exposures, use NIOSH-approved respiratory protection and have an effective respirator program in place (applicable U.S. regulation OSHA 29 CFR 1910.134).
Eye/face protection	Safety glasses with side-shields.
Hand protection	Protective gloves.
Skin and body protection	Wear suitable protective clothing, gloves and eye/face protection
General hygiene considerations	Handle in accordance with good industrial hygiene and safety practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Colorless or white crystals or crystalline powder.
Physical state	Solid.
Odour	Odorless.
pH	4-7 (10% solution in water)
Melting point/freezing point	446 - 581 °F (230 - 305 °C)
Boiling Point/Range	Not available.
Evaporation rate	Not available.
Flash point	Not available.

Flammability (solid, gas)	Not applicable.
Vapor pressure	Not applicable.
Viscosity	Not applicable.
Solubility in water	Very soluble.
Solubility (other)	Freely soluble in alcohol and in methanol; slightly soluble in acetone.
Decomposition temperature	Not applicable.

SECTION 10. STABILITY AND REACTIVITY

Reactivity	No reactivity hazards known.
Chemical stability	Material is stable under normal conditions.
Conditions to avoid	Hygroscopic; protect from moisture.
Materials to avoid	Strong bases, strong oxidizing agents.
Hazardous decomposition products	Risk for formation of trimethylamine and hydrochloric acid in hot, strongly alkaline solution.

SECTION 11. TOXICOLOGICAL INFORMATION

Ingestion	Based on available data, the classification criteria are not met.
Inhalation	Due to lack of data the classification is not possible.
Skin contact	Due to lack of data the classification is not possible.
Eye contact	Due to lack of data the classification is not possible.
Symptoms related to the physical, chemical, and toxicological characteristics	Related material: Nausea. Vomiting. Diarrhea. Salivation. Dizziness. Tearing. Sweating. Blurred vision. Depression. Seizures. It is not known if this material causes the same effects.
Delayed and immediate effects	Related material: High blood pressure. It is not known if this material causes the same effects.
Acute toxicity	LD50 Oral - rat - 3,400 mg/kg

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity	EC50 Freshwater algae 500 mg/l, 72 hours LC50 Freshwater fish > 10000 mg/l, 96 hours
Persistence and degradability	No data is available on the degradability of this product.
Bioaccumulative potential	Not available.
Mobility in soil	Not available.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal instructions	Dispose in accordance with all applicable regulations. Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste.
Local disposal regulations	Not available.
Hazardous waste code	Not available.
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.

SECTION 14. TRANSPORTATION INFORMATION

DOT Not regulated as a hazardous material by DOT.

IATA Not regulated as a dangerous good.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code No information available.

SECTION 15. REGULATORY INFORMATION

US federal regulations CERCLA/SARA Hazardous Substances - Not applicable.
All components are on the U.S. EPA TSCA Inventory List.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Immediate Hazard - Yes
Delayed Hazard - No
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance No

SARA 311/312 Hazardous chemical No

Other federal regulations

Safe Drinking Water Act (SDWA) Not regulated.

Food and Drug Administration (FDA) Not regulated.

US state regulations California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

SECTION 16. OTHER INFORMATION

References: Not available

Other Special Considerations: Not available

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 Jinan Juan Ester Chemical Co., Ltd. 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 Jinan Juan Ester Chemical Co., Ltd. has been advised of the possibility of such damages.

JINAN JUAN ESTER CHEMICAL CO., LTD
