

1. CHEMICAL IDENTIFICATION AND COMPANY INFORMATION

PRODUCT NAME: Choline Chloride
PRODUCT NUMBER: C232
COMPANY INFO: PhytoTech Labs Inc.
 14610 W 106th St. Lenexa, KS 66215
 Phone: 1-888-749-8682 or 1-913-341-5343.
 www.phytotechlab.com

EMERGENCY PHONE NUMBER: 1-800-535-5053 - US Only
(INFOTRAC): 1-352-323-3500 - International

RECOMMENDED USE: For Laboratory-use or Further Manufacture only

RESTRICTIONS ON USE: Products sold by PhytoTech Labs Inc. are intended for laboratory and further manufacturing use only. Products are not to be used as human or animal therapeutics, cosmetics, agricultural or pesticidal products, food additives, or as household chemicals

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

GHS Classification:

- H315 – Skin irritation (Category 2)
- H319 – Eye irritation (Category 2A)
- H335 – Specific target organ toxicity – single exposure – Respiratory system (Category 3)

GHS Label elements, including hazard and precautionary statements:



Signal Word: **Warning**

Hazard Statements:

- H315 – Causes skin irritation.
- H319 – Causes serious eye irritation.
- H335 – May cause respiratory irritation.

Precautionary Statements:

- P261 – Avoid breathing dust.
- P280 – Wear protective gloves/protective clothing/eye protection.
- P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms: Ethanaminium, 2-hydroxy-N,N,N-trimethyl-, chloride (1:1); 2-Hydroxy-N,N,N-trimethylethanaminium chloride
CAS No.: 67-48-1
Formula: C₅H₁₄ClNO
Molecular Weight: 139.63 g/mol
EC No.: 200-655-4

Ingredient	CAS Number	Percent	Hazardous
Choline Chloride	67-48-1	>98 %	No exposure limits established by OSHA or ACGIH

4. FIRST AID MEASURES

General Advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

Route of Entry	Symptoms	First Aid Procedures
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Ingestion	May cause irritation if swallowed	If swallowed, wash out mouth with water. Never give anything by mouth to an unconscious person. Get medical attention.
Inhalation	May cause irritation to respiratory tract	Safely remove victim to fresh air. If not breathing, institute cardiopulmonary resuscitation (CPR). If breathing is difficult, ensure clear airway and give oxygen. Get medical attention.
Eye Contact	Direct contact may cause irritation. May cause redness, tearing, or blurred vision.	Flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Get medical attention if irritation persists.
Skin Contact	Irritating. May cause reddening, itching or inflammation.	Wash area thoroughly with soap and water. Remove and wash contaminated clothing. Get medical attention if irritation persists.

Most Important Symptoms or Effects, Both Acute and Delayed:

See section 2 and/or section 11

Recommendation for Immediate Medical Care and Special Treatment Needed:

No data available

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media:	Water spray, carbon dioxide, dry chemical powder, or appropriate foam. Use extinguishing media suitable for surrounding fire.
Special Protective Equipment and Precaution for Firefighters:	In the event of a fire, wear full protective clothing and NIOSH approved self-contained breathing apparatus. Evacuate the area and fight fire from a safe distance.
Hazardous Combustion Products:	May emit toxic fumes under fire conditions.
Toxic Gases Produced:	Carbon monoxide, carbon dioxide, nitrogen oxides, hydrogen chloride gas

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures:

Use personal protection recommended in Section 8. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation, especially in confined areas. Evacuate personnel to safe areas. Avoid breathing dust.

Environmental Precautions:	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Method of Containment and Cleanup:	Wear suitable protective clothing. Avoid dust formation. Carefully sweep up and remove. Place material in a dry container and cover. Remove from the area. Flush spill area with water. Do not let products enter drains.

7. HANDLING AND STORAGE

Precaution for Safe Handling:	Avoid contact with skin and eyes. Avoid dust formation and aerosols. Avoid incompatible substances. Wash thoroughly after use.
Conditions for Safe Storage:	Keep in a tightly closed container and store in a cool, dry, and well-ventilated area. Protect from moisture. Product is hygroscopic.
Incompatibilities:	Strong oxidizing agents, strong acids, strong bases
Recommended Storage Temperature:	Room Temperature

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

OSHA's Permissible Exposure Limits (PELs):	No data available
Threshold Limit Values (TLVs):	No data available
Engineering Controls:	Handle in accordance to general industrial hygiene and safety practice.

Personal Protective Equipment (PPE):

Eye/Face Protection:	Chemical safety glasses or goggles. Have eye-washing facilities readily available where eye contact can occur.
Skin Protection:	Protective gloves
Body Protection:	Lab coat
Respiratory Protection:	Appropriate respirator

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	White to off-white powder
pH (0.0005 g/L):	Under Development (4.0 – 6.0 suspected range)
Solubility:	Soluble in Water
Melting Point:	239-247 °C
Vapor Density:	No data available
Vapor Pressure:	No data available
Odor:	May have slight amine odor
Odor Threshold:	No data available
Viscosity:	No data available
Relative Density:	No data available
Evaporation Rate:	No data available
Initial Boiling Point and Boiling Range:	No data available
Flammability (solid, gas):	No data available
Partition coefficient: n-octanol/water):	No data available
Auto-ignition Temperature:	No data available
Decomposition Temperature:	No data available
Flash Point (Closed Cup):	No data available
Flammable Limits:	Upper (%) – No data available Lower (%) – No data available

10. STABILITY AND REACTIVITY

Reactivity:	No data available
Chemical Stability:	Stable under normal conditions of use – Material is hygroscopic
Possibility of Hazard Reactions:	Will not occur
Conditions to Avoid:	Excessive heat, moisture
Incompatibles Materials:	Strong oxidizing agents, strong acids, strong bases
Hazardous Decomposition Products:	Carbon monoxide, carbon dioxide, nitrogen oxides, hydrogen chloride gas, chlorine

11. TOXICOLOGICAL INFORMATION

Toxicity:	LD ₅₀ (Oral-Rat)(mg/Kg):	3400
	LD ₅₀ (IP-Rat)(mg/Kg):	450
	LD ₅₀ (IV-Mouse)(mg/Kg):	53
Carcinogenicity:	NTP:	No
	IARC:	No
	OSHA Reg:	No

Reproductive Toxicity:	No data available	
Symptoms Associated with Overexposure:	Irritation, itching, gastrointestinal upset, allergic reaction, possible mutagenic effects, cyanosis, corneal damage, breathing difficulties	
Specific Target Organ Toxicity:	Single Exposure:	Inhalation – may cause respiratory irritation.
	Repeated Exposure:	No data available
Target Organs:	Eyes, skin	
Medical Conditions Aggravated By Exposure:	None identified	
Routes of Entry:	Ingestion, inhalation, skin and eye contact	
NIOSH/RTECS NO:	KH2975000	

The toxicological properties of this product have not been thoroughly investigated

12. ECOLOGICAL INFORMATION

Ecotoxicity:	No data available
Persistence and Degradability:	No data available
Bioaccumulative Potential:	No data available
Mobility in Soil:	No data available
Other Adverse Effects:	No data available

13. DISPOSAL CONSIDERATION

Disposal Procedure:	Dispose in accordance with all applicable federal, state, and local environmental regulations.
EPA Hazardous Waste Number:	No data available

14. TRANSPORT INFORMATION

Domestic (D.O.T.):	Proper Shipping Name:	CHEMICALS, N.O.S. (NON-REGULATED)
	Hazard Class:	N/A
	UN/NA:	N/A
	Labels:	N/A

International:

IMDG:	Proper Shipping Name:	CHEMICALS, N.O.S. (NON-REGULATED)
	Hazard Class:	N/A
	UN/NA:	N/A
	Labels:	N/A

IATA:	Proper Shipping Name:	CHEMICALS, N.O.S. (NON-REGULATED)
	Hazard Class:	N/A
	UN/NA:	N/A
	Labels:	N/A

15. REGULATORY INFORMATION

TSCA:	Yes
SARA TITLE III:	
Section 302 (EHS) Ingredients:	No

Section 313 Ingredients: No
 Section 304 (EHS/CERCLA) Ingredients: No
 Section 311/312 Hazard: Acute Health Hazard

Massachusetts Right to Know Components: This product is not on the Massachusetts Substance List (MSL).
Pennsylvania Right to Know Components: This product is not listed on the Pennsylvania Code’s Hazardous Substance List (Chapter 323).
New Jersey Right to Know Components: This product is not listed amongst the New Jersey Right to Know Hazardous Substance List
California Prop. 65 Components: This product is not known to the State of California to cause cancer or reproductive toxicity.

16. OTHER INFORMATION

HMIS Rating:	Health Hazard	Chronic Health Hazard	Flammability	Physical Hazard
	2		0	0
NFPA Rating:	Health Hazard	Fire Hazard	Reactivity Hazard	Special Hazard
	2	0	0	

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