

Choline Chloride SDS Safety Data Sheet MSDS Sheet, Material Safety Data Sheet

1. Product Identification

Product Name/Synonyms: Choline Chloride; Ethanaminium, 2-hydroxy-N,N,N-trimethylchloride; biocolina; Hepacholine; Lipotril; Choline Chlorhydrate.

CAS No.: 67-48-1

EINECS EC Code: 200-655-4

Molecular Weight: 139.63

Chemical Formula: HOCH₂CH₂N (CH₃)₃HCl, C₅H₁₄ClNO

Recommended uses and uses advised against (if any): Industrial Manufacturing.

SUPPLIER

Company: Finoric LLC

Address: 8115 Loop 540, Beasley, Texas, 77417 USA

In case of emergency contact:

InfoTrac

US: 1-800-535-5053

International: 352-323-3500

2. Hazards Identification

**GHS, Globally Harmonized System Classification in accordance with 29 CFR 1910
Classification according to Regulation (EC) No 1272/2008**

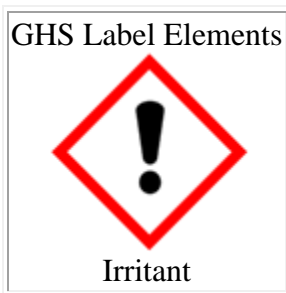
Acute toxicity, Oral Category 5

Skin irritation Category 2

Eye irritation Category 2A

Specific target organ toxicity – single exposure, Respiratory system Category 3

Labeling according GHS USA & Regulation (EC) No 1272/2008



Signal Words: Warning

Hazard statements:

H303: May be harmful if swallowed.

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

Precautionary statements:

P262: Do not get in eyes, on skin, or on clothing.
P264: Wash skin thoroughly after handling.
P 270: Do not eat, drink or smoke when using this product.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P330: Rinse mouth.
P301+312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P302+P352: IF ON SKIN: Wash with soap and water.
P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
P332+313: If skin irritation occurs: Get medical advice/attention.
P337+P313: If eye irritation persists: Get medical advice/ attention.
P360: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes.
P362: Take off contaminated clothing and wash before reuse.
P501: Dispose of contents/container to authorised agents.

Classification according to EU Directives 67/548/EEC or 1999/45/EC:

Hazard Symbols:

Xi Irritant
Xn Harmful

Risk Phrases:

R22 Harmful if swallowed
R: 36/37/38, Risk Phrase: Irritating to eyes, respiratory system and skin.

3. Composition/Information on Ingredients

Ingredient: Choline Chloride with or without water.

CAS No.: 67-48-1

Percent: 60 - 100% active and balance water.

4. First Aid Measures

Always seek medical attention after first aid measures are provided.

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion: Do not induce vomiting unless directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.

Skin Contact: Immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.



Eye Contact: Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used. Do not use an eye ointment. Seek medical attention.

Notes to Physician: Treat symptomatically.

5. Fire Fighting Measures

Fire: Choline chloride is not expected to be a significant fire hazard. It may be combustible at high temperatures.

Explosion: No information found.

Fire Extinguishing Media: Water spray, dry chemical, alcohol foam, fog or carbon dioxide.

Special Information: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.

6. Accidental Release Measures

Personal precautions, protective equipment, environmental precautions and emergency procedures: Do not get in eyes, on skin, or on clothing. Avoid breathing dust/mist/vapors. Wear protective gloves/protective clothing/eye protection/face protection.

Methods and materials used for containment Cleanup procedures and Storage:

Small Spill: Use appropriate tools to put the spilled material in a convenient waste disposal container.

Large Spill: For liquids, absorb with inert material and use a shovel to put the material into a convenient waste disposal container. Provide ventilation. Avoid breathing dust. Do not let product enter drains.

7. Handling and Storage

Precautions for safe handling: Wash thoroughly after handling. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation.

Conditions for safe storage, including any incompatibilities: Keep Choline chloride in a tightly closed container, stored in a cool, dry, ventilated area, away from heat and oxidizing agents. Protect against physical damage. Isolate from incompatible substances like strong oxidizing agents. Containers may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

8. Exposure Controls/Personal Protection

Airborne Exposure Limits: None established.

Ventilation System: A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

Personal Respirators (NIOSH Approved): For conditions of use where exposure to dust or mist is

apparent and engineering controls are not feasible, a particulate respirator (NIOSH type N95 or better filters) may be worn. If oil particles (e.g. lubricants, cutting fluids, glycerin, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-face positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

Skin Protection: Wear protective gloves and clean body-covering clothing.

Eye Protection: Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.

9. Physical and Chemical Properties

Appearance: Dry material is solid and solution is liquid.

Odor: Odorless.

Odor threshold: Not available.

pH: is acidic around 6

Relative density: Not available.

Melting point/freezing point: Not available.

Initial boiling point and boiling range: Not available.

Flash point: Not available.

Auto-ignition temperature: Not available.

Decomposition temperature: Not available.

Upper/lower flammability or explosive limits: Not available.

Vapor pressure: Not available.

Vapor density: Not available.

Evaporation rate: Not available.

Flammability (solid, gas): Not available.

Partition coefficient: n-octanol/water: Not available.

Solubility: Soluble in water

Viscosity: Not available.

Molecular Weight: 139.63

Molecular Formula: HOCH₂CH₂N (CH₃)₃Cl, C₅H₁₄ClNO

10. Stability and Reactivity

Stability: Choline chloride is stable under ordinary conditions of use and storage.

Hazardous Decomposition Products: May emit hydrogen chloride, chlorine, and oxides of nitrogen and carbon and toxic fumes when heated to decomposition.

Hazardous Polymerization: Will not occur.

Incompatibilities: Strong oxidizing agents and extreme heat.

Conditions to Avoid: Incompatibles.

11. Toxicological Information

Oral rat LD₅₀: 3400 mg/kg; Oral mouse LD₅₀: 3900 mg/kg.

Routes of Entry: Eye contact. Inhalation. Ingestion.

The substance is toxic to lungs, mucous membranes. Very hazardous in case of ingestion.

Hazardous in case of skin contact (irritant), of inhalation.



Carcinogenicity: Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.

Mutagenic Effects: Not available.

12. Ecological Information

Environmental Toxicity: No information found.

Mobility: No information available.

Bioaccumulation/ Accumulation: No information available.

Results of PBT and vPvB assessment: No data available for assessment.

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose container and unused contents in accordance with law.

14. Transport Information

Domestic USA (Land, D.O.T.): Not Regulated.

International (Water, I.M.O.): Not Regulated.

International (Air, I.C.A.O.): Not Regulated.

15. Regulatory Information

USA:

SARA CERCLA Hazardous Substances and corresponding RQs: Does not have an RQ.

SARA Section 302 Extremely Hazardous Substances: Does not have a TPQ.

Section 313: No chemicals are reportable under Section 313.

Section 16 - Additional Information

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Disclaimer:

The information and recommendations set forth herein are presented in good faith and believed correct as of the date the SDS was created. It is compiled from various sources and it is not necessarily all inclusive nor fully adequate in every circumstance. In addition, these suggestions should not be confused with nor followed in violation of applicable laws, regulations, rules or insurance requirements applicable. This SDS is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. This shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.
