

MATERIAL SAFETY DATA

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BIOPRODUCTS PRODUCT NAME

CHOLINE CHLORIDE 60%

SECTION I

Manufacturer's Name

Bioproducts, Inc.
320 Springside Drive, Suite 300
Fairlawn, OH 44333-2435

(800) 722-7242
(330) 665-1999

Chemical name and synonyms

Choline Chloride (Biocolina; Hepacholine; Lipotril) CAS #67-48-1 on ground corn cob carrier

SECTION II - INGREDIENTS

Vehicle (inert)	38.5%
Solvent (water)	1.5%
Choline Chloride	60.0%
Others	N/A

Hazardous Mixtures of Other Liquids, Solids, or Gases - N/A

Product is a vitamin of the B complex in a 60% concentration on an inert carrier.

Emergency Contact

*CHEMTREC (800) 424-9300 (24-hour emergency information)

*To be used only in the event of chemical emergencies involving a spill, leak, fire, exposure or accident involving chemicals.

SECTION III - PHYSICAL DATA

Boiling Point (° C.)	N/A
Vapor pressure (mm Hg.)	N/A
Vapor density (air = 1)	N/A
% volatile by volume (%)	N/A
Evaporation rate (_____ = 1)	N/A
Solubility in water	Choline Chloride is 100% soluble in water, carrier is insoluble.
Appearance and odor	Brown granular solid, may have slight grain odor.
Hygroscopic (water absorption)	Will absorb water upon exposure to air.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash point	Smolders on exposure to flame.
Extinguishing media	As required for surrounding media.
Special fire fighting procedures	As required for surrounding media.
Flammable limits	N/A
Unusual fire and explosion hazards	May present a dust explosion hazard.

SECTION V - HEALTH HAZARD DATA

Oral LD ₅₀ (rat)	6.7 g/kg (choline chloride)
Threshold limit value	N/A
Effects of overexposure	None anticipated. Some mechanical irritation may be caused.
Emergency and first aid procedures	In event of dust irritation, remove from area and wash thoroughly.
Stability	Stable

SECTION VI - REACTIVITY DATA

Incompatibility (materials to avoid)	Strong acids and alkalies, Sn, Al, Cu, and alloys.
Hazardous decomposition products	Trimethylamine in trace amounts.
Hazardous polymerization	Will not occur.
Conditions to avoid	None known.

SECTION VII - SPILL OR LEAK PROCEDURES

Steps to be taken in case material is released or spilled:

Dry premix, sweep up immediately and store in properly labeled containers for reuse or disposal.

Waste disposal method.

Dispose in accordance with Local, State and Federal regulations. May be disposed as a non-hazardous waste, with permit. Notify authorities if it is necessary to wash into sewer or storm drains. Not listed as a SARA Title III, Section 302, 304 or 313 chemical.

SECTION VIII - SPECIAL PROTECTION INFORMATION

Respiratory protection (specify type)

Use MSHA/NOISH approved dust respirator.

Ventilation

Local exhaust

Recommended

Special

Normal

Mechanical (general)

N/A

Other

N/A

Protective gloves

Recommended

Eye Protection

Safety goggles

Other protective equipment

Optional

SECTION IX - SPECIAL PRECAUTIONS

Precautions to be taken in handling and storing:

Store in a cool, dry place in closed containers. Avoid breathing dust, avoid contact with skin. Wash thoroughly after handling.

Other precautions.

N/A

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