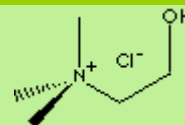


CHOLINE CHLORIDE

PRODUCT IDENTIFICATION

CAS NO.	67-48-1
EINECS NO.	200-655-4
FORMULA	HOCH ₂ CH ₂ N(CH ₃) ₃ Cl
MOL WT.	139.63
H.S. CODE	2923.10
TOXICITY	Oral rat LD50: 3400 mg/kg
SYNONYMS	(2-Hydroxyethyl)trimethylammonium chloride;



Hepacholine; Biocolina; lipotril; Choline hydrochloride; Cholinium chloride; (2-Hydroxyethyl)trimethylammonium chloride; Choline hydrochloride; 2-Hydroxy-N,N,N-trimethylethanaminium Chloride; Chloride De Choline (French); Biocolina; N,N,N-Trimethyl-2-hydroxyethylammonium Chloride; 2-Hydroxy-N,N,N-trimethylethanaminium, Chloride;

INGREDIENTS

CLASSIFICATION [VITAMINS /](#)

PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE	White crystals, Slight amine odor
MELTING POINT	303 - 305 C
BOILING POINT	
SPECIFIC GRAVITY	
SOLUBILITY IN WATER	Very soluble
pH	neutral to slightly acid
VAPOR DENSITY	
AUTOIGNITION	
NFPA RATINGS	Health: 1 Flammability: 1 Reactivity: 0
REFRACTIVE INDEX	
FLASH POINT	
STABILITY	Stable under ordinary conditions

GENERAL DESCRIPTION & APPLICATIONS

Choline is a quaternary ammonium compound having a hydroxyl substituent with general formula, (CH₃)₃N⁺CH₂CH₂O⁻H. It is a strongly basic hygroscopic amine substance distributed widely in plant and animal tissues. It is often referred to vitamin B complex. It is the basic constituent of lecithin (a group of phospholipids of the general composition CH₂OR₁CHOR₂CH₂OPO₂OHR₃, where R₁ and R₂ are fatty acids and R₃ is choline) and other phospholipids. Sphingomyelin is a phospholipid consisting of choline, sphingosine, phosphoric acid, and a fatty acid. Choline prevents the deposition of fat in the liver. It is essential in normal fat and carbohydrate metabolism. It is a precursor of acetylcholine which is released at the ends of nerve fibers in the somatic and parasympathetic nervous systems. It is essential in synaptic transmission of nerve impulses. Choline is also involved in protein metabolism and transmethylation as a methylating agent. Methionine and choline are important donors of methyl groups in biochemistry. Choline is also oxidized to form betaine in methionine biosynthesis. Choline and its salts and esters are widely used in the industry of feed, agriculture, food, health care, pharmaceuticals, and biochemistry.

SALES SPECIFICATION

CORN COB TYPE

CONTENT	50.0% or 60.0% min
LOSS ON DRYING	4.0% max
PARTICLE SIZE	85% min (20 mesh)

SILICA TYPE	
CONTENT	50.0% min
LOSS ON DRYING	2.0% max
PARTICLE SIZE	95% min (20 mesh)
AQ. SOLUTION	
CONTENT	70.0% or 75.0% min
HEAVY METALS	20ppm max
RESIDUE ON IGNITION	0.2% max
TRANSPORTATION	
PACKING	25kgs in bag, 230kgs in drum
HAZARD CLASS	Not regulated
UN NO.	
OTHER INFORMATION	