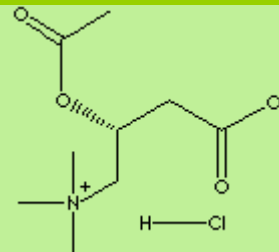


O-ACETYL-L-CARNITINE HYDROCHLORIDE

PRODUCT IDENTIFICATION

CAS NO. 5080-50-2
EINECS NO.
FORMULA $C_9H_{17}NO_4 \cdot HCl$
MOL WT. 239.70
H.S. CODE
TOXICITY



SYNONYMS (R)-3-Acetoxy-4-(trimethylammonio)butyrate hydrochloride;
R(-)-2-Acetyloxy-3-carboxy-N,N,N-trimethyl-1-propanaminium chloride;

DERIVATION

CLASSIFICATION

PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE white powder
MELTING POINT
BOILING POINT
SPECIFIC GRAVITY
SOLUBILITY IN WATER Soluble (Insoluble in acetone)
pH
VAPOR DENSITY
AUTOIGNITION
NFPA RATINGS Health: 1 Flammability: 0 Reactivity: 0
REFRACTIVE INDEX
FLASH POINT
STABILITY Stable under ordinary conditions. Hygroscopic.

GENERAL DESCRIPTION & APPLICATIONS

Carnitine: A betaine derivative (L-gamma-trimethyl-beta-hydroxybutyrobetaine) found in skeletal muscle and liver. It plays a role in fatty acid transport across mitochondrial membranes. Like amino acids, L-form is isomer biologically active in the body. Many factors have been identified that affect carnitine excretion in humans, including diet, age, sex, physical activity, fasting, burns and other traumatic injuries and thyroid status. It is supplied into the human body via both food and endogenous synthesis from lysine or methionine in the liver and kidney. It is a vitamine-like substance belong to a group of non-vitamin nutrients. It is often called Vitamine BT. Carnitine and modified derivatives are involved in the improvement of muscle quality, scavenger system for acyl groups, fat metabolism and energy production, and lactate clearance. They have been also used as an investigational antithyroid and antiangina agent. Acetyl-L-Carnitine decreases the loss of cholinergic neurons during congenital hyperammonemia. It is active in the central nervous system and in the male reproductive tract.

SALES SPECIFICATION

APPEARANCE white powder
ASSAY (TITR) 98.0 - 102.0%
SPECIFIC ROTATION -26.0° ; -29.0°
RESIDUE ON IGNITION 0.5% max
HEAVY METALS 10ppm max
LOSS ON DRYING 1.0% max

TRANSPORTATION

PACKING

HAZARD CLASS

UN NO.

OTHER INFORMATION

Hazard Symbols: XI, Risk Phrases: 36/37/38, Safety Phrases: 26-36