



Formula: C₆H₈O₆

MW: 176.13

TNP NUMBER: TNP00454

MDL NUMBER: MFCD00066707

IUPAC: 5-(1,2-dihydroxyethyl)-3,4-dihydroxy-5-hydrofuran-2-one

Smiles: C1(=C(C(C(O)CO)OC1=O)O)O

THERAPEUTIC CATEGORY: VITAMIN

ACCEPTORS: 6

DONORS: 4

ROTATION BONDS: 6

N+O: 6

Chiral Centers: 2

LogP: -2.15

LogS: -1.69

LIPINSKI: 4

Synonyms:

3-Keto-L-gulofuranolactone;3-Oxo-L-gulofuranolactone;3-oxo-l-gulofuranolactone(enolform);Ad enex;Allercorb;Antiscorbic vitamin;antiscorbicvitamin;Antiscorbic vitamin

CAS:50-81-7

MF:C6H8O6

MW:176.12

EINECS:200-066-2

Product Categories:PHARMACEUTICALS;Food and Feed Additive;Acid;Vitamins and Derivatives;Antioxidant;Biochemistry;Sugar Acids;Sugars;Vitamins;Nutritional Supplements;Vitamin Ingredients;Food Additives,Medicine L(+)-Ascorbic acid

Chemical Properties: mp 190-194 C (dec.) alpha 20.5 (c=10,H2O) density 1,65 g/cm³ FEMA 2109 refractive index 21 (C=10, H2O) storage temp. 0-6C solubility H2O: 50 mg/mL at 20 C, clear, nearly colorless form powder color white to slightly yellow Water Solubility 333 g/L (20 C) Merck 14,830 BRN 84272 Stability:Stable. May be weakly light or air sensitive. Incompatible with oxidizing agents, alkalies, iron, copper.

CAS DataBase Reference: 50-81-7(

CAS DataBase Reference:) NIST Chemistry ReferenceL-Ascorbic acid(50-81-7) EPA Substance Registry SystemL-Ascorbic acid(50-81-7) Xn Risk Statements 20/21/22-36/37/38 Safety Statements 24/25-36-26 WGK Germany 1 RTECS CI7650000 HS Code 29362700 Hazardous Substances Data50-81-7(Hazardous Substances Data) L-Threo-2,3,4,5,6-pentahydroxy-1-hexenoic acid-4-lactone L(+)-Ascorbic acid

Usage And Synthesis:

Chemical Properties: White crystals General DescriptionWhite to very pale yellow crystalline powder with a pleasant sharp acidic taste. Almost odorless. Air & Water ReactionsMay be sensitive to prolonged exposure to air and light. Sensitive to moisture. Soluble in water. Aqueous solutions are oxidized by air in a reaction that is accelerated by alkalis, iron and copper. The rate depends on the pH and on oxygen concentration. Also subject to degradation under anaerobic conditions. Reactivity ProfileL(+)-Ascorbic acid is a lactone. Reacts as a relatively strong reducing agent and decolorizes many dyes. Forms stable metal salts. Incompatible with oxidizers, dyes, alkalis, iron and copper. Also incompatible with ferric salts

and salts of heavy metals, particularly copper, zinc and manganese . Fire HazardFlash point data for L(+)-Ascorbic acid are not available; however, L(+)-Ascorbic acid is probably combustible. L(+)-Ascorbic acid

