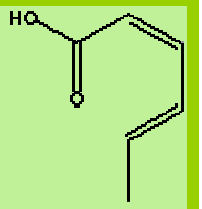
SORBIC ACID



PRODUCT IDENTIFICATION

CAS NO.	110-44-1
EINECS NO.	203-768-7
FORMULA	$CH_3CH=CHCH=CHCOOH$
MOL WT.	112.13
H.S. CODE	2916.19.2000
TOXICITY	Oral, rat LD50: 7360 mg/kg
SYNONYMS	(E,E)-2,4-Hexadienoic acid; 2-Propenylacrylic acid; alpha-trans-gamma-trans-Sorbic acid; trans,trans-Sorbic acid; Preservastat; Sorbistat; Hexadienoic acid; 1,3-Pentadiene-1-carboxylic acid; Panosorb; (2-Butenylidene)acetic acid; Crotylidene acetic acid; Acide sorbique; Kyselina 1,3-Pentadien-1-karboxylova; Kyselina sorbova; Hexa-2,4-dienoic acid; Other RN: 91751-55-2
SMILES	C(=C\C=C\C)\C(O)=O
CLASSIFICATION	Antimicrobial agent, Preservative, Fungicide, Bactericide
EXTRA NOTES	Mold and yeast inhibitor. Used as a fungistatic agent for foods EPA Pesticide Chemical Code 075901 E number 200

PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE	White crystalline powder
MELTING POINT	134.5 C
BOILING POINT	228 C (Decomposes)
SPECIFIC GRAVITY	1.204
SOLUBILITY IN WATER	Slightly
pH	
VAPOR DENSITY	3.87
log P	1.33 (octanol-water)
AUTOIGNITION	
NFPA RATINGS	Health: 0 Flammability: 1 Reactivity: 1
REFRACTIVE INDEX	
FLASH POINT	126 C
STABILITY	Stable under ordinary conditions

EXTERNAL LINKS & GENERAL DESCRIPTION

Local:

Sorbic Acid (also called chemically 2,4-hexadienoic acid), a white crystalline powder or granule form for dust free, is an unsaturated fatty acid which has two double bonds in conjugation that is, two double bonds separated only by one single bond. It and its salts (potassium sorbate, calcium sorbate ; its salts are used according to differences in solubility.) are used as preservatives in wide range of food products as well as in their packaging materials, since they are characterized by their broad effectiveness to inhibit molds, yeast, and many bacteria growth in food. Potassium sorbate, white to slightly yellow crystalline powder, is the potassium salt of sorbic acid and is much more soluble in water than the acid. Potassium sorbate will releases back sorbic acid if dissolved in water. It is effective up to pH 6.5 but effectiveness increases as the pH decreases. The lower the pH value of the product the lower amount of Sorbic Acid or Potassium Sorbate is needed for preservation. Its industrial applications include use in coating industry to improve gloss and in rubber industry.

Sorbic acid is used as a mold, bacterial and yeast inhibitor and as a fungistatic agent in foods. It is also used in cosmetics, pharmaceutical, tobacco and flavoring products. In wines, it is to prevent the secondary fermentation of residual sugar. It is used in coating to improve gloss and as an intermediate to manufacture plasticizers and lubricants. It is used as an additive in rubber industry to improve milling characteristics.

A preservative is an additive for foods, pharmaceuticals, personal care products, cosmetics and other industrial products to reduce spoilage that air, fungi, bacteria, or yeast can cause. Members of common preservative for foods, pharmaceuticals, personal care products and cosmetics include:

SALES SPECIFICATION	
BIBLIOGRAPHY	FCC IV
APPEARANCE	White crystalline solid
ASSAY	99.0~101.0%
MELTING RANGE	132 - 135 C
WATER	0.5% max
ALDEHYDE	0.1% max
RESIDUE ON IGNITION	0.1% max
ARSENIC (as As)	3ppm max
HEAVY METALS (as Pb)	10ppm max
TRANSPORTATION	
PACKING	25kgs in fiber drum, 13mts in Container
HAZARD CLASS	Not regulated
UN NO.	
SAFETY INFORMATION	
HAZARD OVERVIEW	Causes eye, skin, and respiratory tract irritation. Target Organs: Respiratory system, eyes, skin.
GHS	
SIGNAL WORD	Warning
PICTOGRAMS	
HAZARD STATEMENTS	H315-H319-H335
P STATEMENTS	P261-P280-P302+P352-P305+P351+P338
EC DIRECTIVES	
HAZARD CODES	
RISK PHRASES	36/37/38
SAFETY PHRASES	26-37/39
PRICE INFORMATION	