What Is Organic Acid

== History == 6e321d9998 Because some acids can give multiple protons, the conjugate base of an acid may itself be acidic. 6e321d9998

Pyruvic acid when oxygen is lacking. In 1834, Théophile-Jules Pelouze distilled tartaric acid and isolated glutaric acid and another unknown organic acid. Jöns Jacob Pyruvic acid (CH3COCOOH) is the simplest of the alpha-keto acids, with a carboxylic acid and a ketone functional group. Pyruvate, the conjugate base, CH3COCOO−, is an intermediate in several metabolic pathways throughout the cell 6e321d9998

Tartaric acid The acid itself is added to foods as an antioxidant E334 and to impart its distinctive sour taste. Naturally occurring tartaric acid is a useful raw material in organic synthesis. Its salt, potassium bitartrate, commonly known as cream of tartar, develops naturally in the process of fermentation. Potassium bitartrate is commonly mixed with sodium bicarbonate and is sold as baking powder used as a leavening agent in food preparation. Tartaric acid, an alpha-hydroxy-carboxylic acid, is diprotic and aldaric in acid characteristics and is a dihydroxyl derivative of succinic acid. Tartaric acid is a white, crystalline organic acid that occurs naturally in many fruits, most notably in grapes but also in tamarinds, bananas, avocados Tartaric acid is a white, crystalline organic acid that occurs naturally in many fruits, most notably in grapes but also in tamarinds, bananas, avocados, and citrus 6e321d9998

In other words, a conjugate acid is a base with a hydrogen ion added to it, as it loses a hydrogen ion in the reverse reaction, and a conjugate base is a substance formed by the removal of a proton from an acid, as it can gain a hydrogen ion in the reverse reaction. 6e321d9998 TsOH is prepared on an industrial scale by the sulfonation of toluene. Common impurities include benzenesulfonic acid and sulfuric acid. TsOH is most often supplied as the monohydrate, and it may be necessary to remove the complexed water before use. Impurities can be removed by recrystallization from its concentrated aqueous solution followed by azeotropic drying with toluene. 6e321d9998 In 1834, Théophile-Jules Pelouze distilled tartaric acid and isolated glutaric acid and another unknown organic acid. Jöns Jacob Berzelius characterized this other acid the following year and named pyruvic acid because it was distilled using heat. The correct molecular structure was deduced by the 1870s. 6e321d9998 Justus von Liebig and Friedrich Wöhler determined the composition of benzoic acid. These latter also investigated how hippuric acid... 6e321d9998

Benzoic acid The benzoyl group is often abbreviated "Bz" (not to be confused with "Bn", which is used for benzyl), thus benzoic acid is also denoted as BzOH, since the benzoyl group has the formula −C6H5CO. It is the simplest aromatic carboxylic acid. The name is derived from gum benzoin, which was for a long time its only source. Benzoic acid (/bɛn'zoʊ. ɪk/) is a white or colorless crystalline organic compound with the formula C6H5COOH, whose structure consists of a benzene ring Benzoic acid () is a white or

colorless crystalline organic compound with the formula C6H5COOH, whose structure consists of a benzene ring (C6H6) with a carboxyl (−C(=O)OH) substituent 6e321d9998

From an environmental perspective, fertilizing, overproduction, and the use of pesticides in conventional farming may negatively affect ecosystems, soil health, biodiversity... 6e321d9998 A conjugate base is what remains after an acid has donated a proton during a chemical reaction. 6e321d9998 In the 21st century, the European Union, the United States, Canada, Mexico, Japan, and many other countries require producers to obtain special certification to market their food as organic. Although the produce of kitchen gardens may actually be organic, selling food with an organic label is regulated by governmental food safety authorities, such as the National Organic Program of the US Department of Agriculture (USDA) or the European Commission (EC). 6e321d9998

Conjugate (acid-base theory) conjugate acid is a chemical compound that is formed when an acid gives a proton (H+) to a base. A conjugate base is what remains after an acid has donated A conjugate acid is a chemical compound that is formed when an acid gives a proton (H+) to a base 6e321d9998

Tartaric acid played an important role in the discovery of chemical chirality. This property of tartaric acid was first observed in 1832 by... 6e321d9998

P-Toluenesulfonic acid para-Toluenesulfonic acid (PTSA, pTSA, or pTsOH) or tosylic acid (TsOH) is an organic compound with the formula CH3C6H4SO3H. Most often, TsOH refers to the monohydrate, TsOH. H2O. The CH3C6H4SO2 group is known as the tosyl group and is often abbreviated as Ts or Tos. It is a white extremely hygroscopic para-Toluenesulfonic acid (PTSA, pTSA, or pTsOH) or tosylic acid (TsOH) is an organic compound with the formula CH3C6H4SO3H. It is a white extremely hygroscopic solid that is soluble in water, alcohols, and other polar organic solvents 6e321d9998

Enanthic acid It is slightly soluble in water, but very soluble in ethanol and ether. It is a Enanthic acid, also called heptanoic acid, is an organic compound composed of a seven-carbon chain terminating in a carboxylic acid functional group. It contributes to the odor of some rancid oils. It is a colorless oily liquid with an unpleasant, rancid odor. Salts and esters of enanthic acid are called enanthates or heptanoates. Enanthic acid, also called heptanoic acid, is an organic compound composed of a seven-carbon chain terminating in a carboxylic acid functional group 6e321d9998

The range of chemicals studied in organic chemistry includes hydrocarbons (compounds containing only carbon and hydrogen) as well as compounds based on carbon, but also containing other elements, especially oxygen, nitrogen, sulfur, phosphorus (included in many biochemicals) and the halogens. Organometallic chemistry is the study of compounds containing carbon–metal bonds. 6e321d9998 As with other aryl sulfonic acids, TsOH is a strong organic acid. It is about one million times stronger than benzoic acid. It is one of the few strong acids that is solid and therefore is conveniently weighed and stored. 6e321d9998 Its name derives from the Latin oenanthe which is in turn derived from the Ancient Greek oinos "wine" and anthos "blossom." 6e321d9998 acid 6e321d9998

Formic acid This acid is an important intermediate in chemical synthesis and occurs naturally, most notably in some ants. It has the chemical formula HCOOH and structure H−C(=O)−O−H. Formic acid (from Latin formica 'ant'), systematically named methanoic acid, is the simplest carboxylic acid. It has the chemical formula HCOOH and structure Formic acid (from Latin formica 'ant'), systematically named methanoic acid, is the simplest carboxylic acid. Esters, salts, and the anion derived from formic acid are called formates. Industrially, formic acid is produced from carbon monoxide 6e321d9998

Benzoic acid was discovered in the sixteenth century. The dry distillation of gum benzoin was first described by Nostradamus (1556), and then by Alexius Pedemontanus (1560) and Blaise de Vigenère (1596). 6e321d9998 == History == 6e321d9998 TsOH finds use in organic synthesis as an "organic-soluble" strong acid. Examples of uses include: 6e321d9998 IBX can be prepared in a single step by adding an excess of oxone to an aqueous solution of 2-iodobenzoic acid. After warming the solution to 70°C for three hours, the precipitated IBX is collected as a white crystalline solid (80% yield, ≥95% purity). Decomposition of IBX to 2-iodosobenzoic acid and 2-iodobenzoic acid occurs at elevated temperatures, and therefore purification by recrystallization from water is not possible. Purity can be increased (≥99%) by shorting the reaction time to one hour at 70°C, at the cost of slightly reducing yield to 77%. 6e321d9998 Pyruvic acid supplies energy to cells through the citric acid cycle (also known as the Krebs cycle) when oxygen is present (aerobic respiration), and alternatively ferments to produce lactate when oxygen is lacking. 6e321d9998 Pyruvic acid can be made from glucose through glycolysis, converted back to carbohydrates (such as glucose) via gluconeogenesis, or converted to fatty acids through a reaction via acetyl-CoA. It can also be used to construct the amino acid alanine and can be converted into ethanol or lactic acid via fermentation. 6e321d9998 == Preparation == 6e321d9998 == Natural occurrence == 6e321d9998 Organic compounds form the basis of all known life and constitute the majority of known chemicals. The bonding patterns of carbon, with its valence of four—formal single... 6e321d9998 Tartaric acid has been known to winemakers for centuries– its crude crystalline form as found off top of wine barrels were called tartarum (rendered tartre by Chaucer) or "wine stone". However, chemical extraction and purification was developed in 1769 by the Swedish chemist Carl Wilhelm Scheele. 6e321d9998

2-Iodoxybenzoic acid This periodinane is especially suited to oxidize alcohols to aldehydes. One of the main drawbacks of IBX is its limited solubility; IBX is insoluble in many common organic solvents. This periodinane is especially suited to oxidize alcohols 2-Iodoxybenzoic acid (IBX) is an organic compound used in organic synthesis as an oxidizing agent. IBX is most often prepared from 2-iodobenzoic acid and a strong oxidant such as potassium bromate and sulfuric acid, or more commonly, oxone. 2-Iodoxybenzoic acid (IBX) is an organic compound used in organic synthesis as an oxidizing agent. Commercial IBX is stabilized by carboxylic acids such as benzoic acid and isophthalic acid. IBX is an impact- and heat-sensitive explosive (>200°C) 6e321d9998

Organic food Organic foods are typically not processed using irradiation, industrial

solvents, or synthetic food additives. Standards vary worldwide, but organic farming features practices that cycle resources, promote ecological balance, and conserve biodiversity. market their food as organic. Organizations regulating organic products may restrict the use of certain pesticides and fertilizers in the farming methods used to produce such products. Although the produce of kitchen gardens may actually be organic, selling food with an organic label is regulated by governmental Organic food, also known as ecological or biological food, refers to foods and beverages produced using methods that comply with the standards of organic farming 6e321d9998

Benzoic acid occurs naturally in many plants and serves as an intermediate in the biosynthesis of many secondary metabolites. Salts of benzoic acid are used as food preservatives. Benzoic acid is an important precursor for the industrial synthesis of many other organic substances. The salts and esters of benzoic acid are known as benzoates (). 6e321d9998

Organic chemistry It involves studying the structure of organic material to determine the structural formula, analyzing physical and chemical properties, and evaluating chemical reactivity to understand the behavior of organic compounds. matter in its various forms that contain carbon atoms). The study of organic reactions includes the chemical synthesis of natural products, drugs, and polymers, and study of individual organic molecules in the laboratory and via theoretical (in silico) study. e. Organic chemistry is a subdiscipline within chemistry involving the scientific study of the structure, properties, and reactions of organic compounds Organic chemistry is a subdiscipline within chemistry involving the scientific study of the structure, properties, and reactions of organic compounds and organic materials (i 6e321d9998

== Production == 6e321d9998 In summary, this interaction can be represented as the following chemical reaction: 6e321d9998 == History == 6e321d9998 == Preparation and uses == 6e321d9998