

Tartaric Acid

13 January 2017

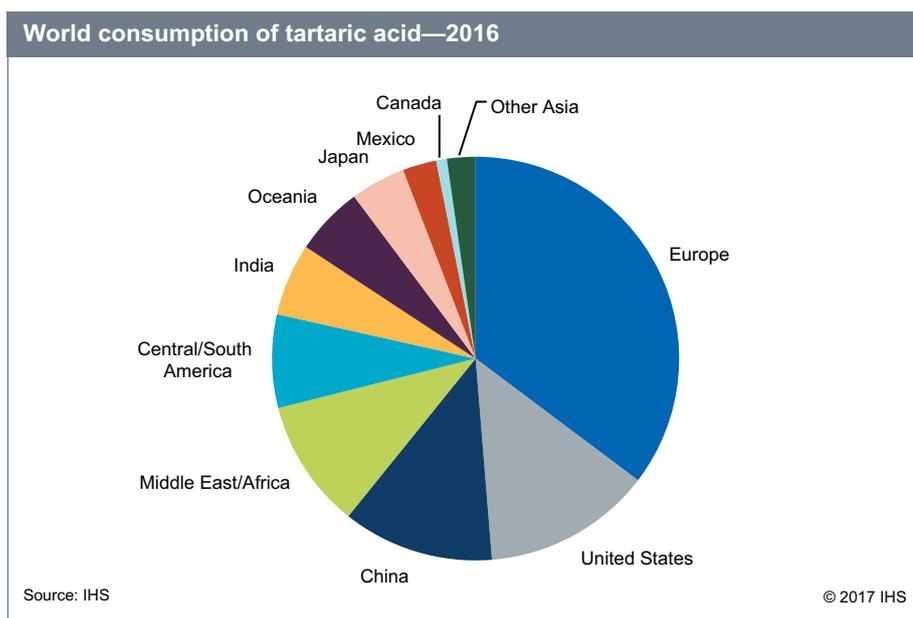
ihs.com

Abstract

Tartaric acid is a dihydroxy dicarboxylic acid that occurs naturally in grapes and is also produced synthetically. It is used as an acidulant in wine, food, and beverages; a raw material in the production of emulsifiers; an excipient and buffering agent in pharmaceutical products; and in other applications in gypsum and effervescent antacids.

Wine-producing countries such as Italy, Spain, and France supply the majority of the natural tartaric acid, while China is the single largest producer of the synthetic product. The competition between natural and synthetic tartaric acid lies in pricing, and synthetic tartaric acid is a much cheaper option. As a result, there has been a shift toward increased use of synthetic product, which had about a 50% market share in 2016 compared with only 30% in 2006.

The following pie chart shows world consumption of tartaric acid:



In wine, food, and beverage applications, tartaric acid acts as an acidulant and provides the following functions:

- Adjusts and controls pH
- Provides and enhances flavors
- Controls the growth of microorganisms (preservation)
- Emulsifies dough (via DATEM esters)

Contacts

Koon-Ling Ring

Koon-Ling.ring@ihs.com

Maria deGuzman

Maria.deguzman@ihs.com

IHS™ CHEMICAL

COPYRIGHT NOTICE AND DISCLAIMER © 2017 IHS. For internal use of IHS clients only.

No portion of this report may be reproduced, reused, or otherwise distributed in any form without prior written consent, with the exception of any internal client distribution as may be permitted in the license agreement between client and IHS. Content reproduced or redistributed with IHS permission must display IHS legal notices and attributions of authorship. The information contained herein is from sources considered reliable, but its accuracy and completeness are not warranted, nor are the opinions and analyses that are based upon it, and to the extent permitted by law, IHS shall not be liable for any errors or omissions or any loss, damage, or expense incurred by reliance on information or any statement contained herein. In particular, please note that no representation or warranty is given as to the achievement or reasonableness of, and no reliance should be placed on, any projections, forecasts, estimates, or assumptions, and, due to various risks and uncertainties, actual events and results may differ materially from forecasts and statements of belief noted herein. This report is not to be construed as legal or financial advice, and use of or reliance on any information in this publication is entirely at client's own risk. IHS and the IHS logo are trademarks of IHS.



The wine, food, and beverage sectors are the largest downstream markets (accounting for over 56% in 2016) for tartaric acid. As an acidulant in wine, the level of tartaric acid being added varies among major wine-making countries. This is because of factors such as the acidity level in the grapes, associated with weather conditions; the efficiency of ion exchange practices; and the schooling and education of industry. Among wine producing countries, Australia has the highest level of tartaric acid added to wine while European countries see the lowest. Growing demand for wine continues to drive tartaric acid consumption. As an acidulant and flavor modifier in food and beverages, tartaric acid competes with citric acid although in many applications it is used as a secondary acidulant. Growing consumption of nutritional bars and sports and protein drinks, as well as the introduction of fruit-flavored beverages, supports tartaric acid demand growth.

Global consumption in the wine, food, and beverage sectors is forecast to grow at an average annual rate of 3% during 2016–21. Other applications for tartaric acid include use in cement and gypsum (as a set-retardant and antisolidsifying agent in the production of plaster and cement, as well as an anticaking agent in gypsum processing), in effervescent antacids, and as a synthetic intermediate for pharmaceuticals.

Europe accounted for 35% of the world consumption of tartaric acid in 2016, followed by North America, China, and other Asian countries. Construction is the largest market for tartaric acid in Europe, for cement, plaster, and drywall gypsum board. Wine accounted for most of the consumption in North and South America and Oceania. Pharmaceuticals accounted for most of the consumption of tartaric acid in Asia, largely in China. Growth in demand for wine, food, and beverages is the main factor for increasing consumption of tartaric acid in most regions except Asia; pharmaceuticals, food, and beverages account for most growth in Asia simply because of the minor presence of wine production.

Consumption of tartaric acid in food and beverages in developing markets, including Asian countries, is expected to grow along with increasing demand for processed food and ready-to-drink beverages, and improvements in living standards. Significant growth in demand is expected in the Americas, Oceania, and Africa, largely as a result of increased wine production in Australia, New Zealand, South Africa, the United States, Chile, and Argentina.

Contents

Executive summary	4
Summary	5
Introduction	11
Manufacturing processes	12
Regulatory status	13
Supply and demand by region	15
United States	15
Producing companies	15
Salient statistics	15
Consumption	15
Wine	16
Food and beverages	17
DATEM esters	18
Pharmaceuticals	18
Antacids	18
Other	18
Price	18
Trade	19
Imports	19
Exports	21
Canada	23
Salient statistics	23
Trade	23
Mexico	24
Salient statistics	24
Trade	24
Central and South America	25
Producing companies	25
Salient statistics	25
Consumption	26
Europe	27
Producing companies	27
Salient statistics	28
Production	29
Consumption	30
Wine	30
DATEM esters	31
Food and beverages	31
Construction	31
Pharmaceuticals	32
Antacids	32
Other	32
Price	32
Trade	33

IHS™ CHEMICAL

COPYRIGHT NOTICE AND DISCLAIMER © 2017 IHS. For internal use of IHS clients only. No portion of this report may be reproduced, reused, or otherwise distributed in any form without prior written consent, with the exception of any internal client distribution as may be permitted in the license agreement between client and IHS. Content reproduced or redistributed with IHS permission must display IHS legal notices and attributions of authorship. The information contained herein is from sources considered reliable, but its accuracy and completeness are not warranted, nor are the opinions and analyses that are based upon it, and to the extent permitted by law, IHS shall not be liable for any errors or omissions or any loss, damage, or expense incurred by reliance on information or any statement contained herein. In particular, please note that no representation or warranty is given as to the achievement or reasonableness of, and no reliance should be placed on, any projections, forecasts, estimates, or assumptions, and, due to various risks and uncertainties, actual events and results may differ materially from forecasts and statements of belief noted herein. This report is not to be construed as legal or financial advice, and use of or reliance on any information in this publication is entirely at client's own risk. IHS and the IHS logo are trademarks of IHS.



Tartaric acid	33
Imports	34
Exports	34
Tartaric acid salts and esters	35
Middle East and Africa	36
Salient statistics	36
Trade	36
China	37
Producing companies	37
Salient statistics	39
Consumption	39
Price	40
Trade	40
Tartaric acid	40
Tartaric acid salts and esters	42
Other Asia	42
Producing companies	42
Salient statistics	43
Consumption	44
Oceania	45
Producing companies	45
Salient statistics	45
Consumption	45
Bibliography	47

IHS Customer Care:

Americas: +1 800 IHS CARE (+1 800 447 2273); CustomerCare@ihs.com
Europe, Middle East, and Africa: +44 (0) 1344 328 300; Customer.Support@ihs.com
Asia and the Pacific Rim: +604 291 3600; SupportAPAC@ihs.com

