

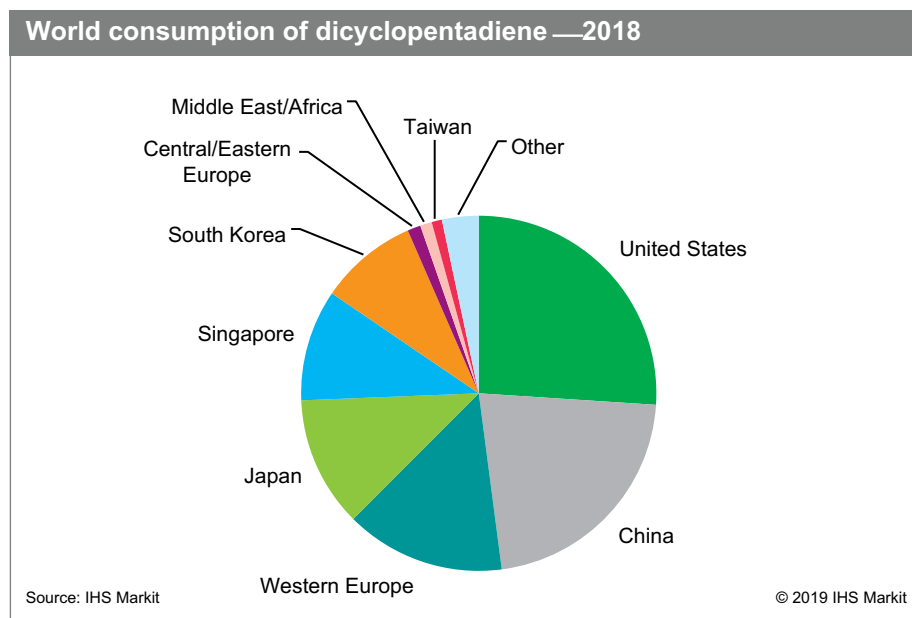
# Cyclopentadiene-Dicyclopentadiene

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## Abstract

Cyclopentadiene and its dimer, dicyclopentadiene (DCPD), are obtained as by-products of the steam cracking of hydrocarbons. Production and consumption had been concentrated in the United States, Western Europe, and Japan, but the rise of Chinese demand in traditional dicyclopentadiene markets has made China the second-largest consumer. Especially in Asia, the growth of the construction, automotive, and electronics industries has increased the consumption of dicyclopentadiene. Growth in DCPD consumption for hydrocarbon resins has launched Singapore and Taiwan as major Asian consumers.

The following pie chart shows world consumption of dicyclopentadiene:



The majority of DCPD end-use applications are for well-established markets. In 2018, the largest global DCPD markets were unsaturated polyester resins, hydrocarbon (petroleum) resins, and EPDM elastomers (mostly as ethylidene norbornene). Other more specialized DCPD markets include poly-DCPD, COC/COP (cyclo-olefin copolymers or cyclo-olefin polymers), flame retardants, pesticides, antioxidants, and flavors/fragrances (some of these markets consume higher-purity DCPD).

Important factors influencing the global DCPD market are the following: (1) the shift of global production centers to China and Other Asia; (2) the effect of changing feedstocks for ethylene production, especially in the United States; (3) changing trade flows (especially shipments from China and Taiwan to North America and Europe); and (4) the dramatic Asian growth for hydrocarbon resins.

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In 2018, the United States, China, Western Europe, and Japan are the largest consuming regions, followed closely by Singapore and South Korea. Global consumption is forecast to continue growing moderately during 2018–23; most end-use markets are expected to grow at GDP levels. Strong drivers for market growth are the hydrocarbon resin expansions in China, Singapore, and Taiwan and continued steady growth in unsaturated polyester resins. Hydrocarbon resins are widely consumed in hot-melt adhesives used for diapers and other nonwovens, packaging, and woodworking. World DCPD consumption will grow fastest in Singapore and Taiwan during 2018–23.

Chinese consumption of DCPD will continue to grow strongly during 2018–23, followed by the United States and Europe. Consumption in Taiwan will experience rapid growth during the forecast period, mainly because of a new DCPD resin plant coming onstream in 2019.

# Contents

<b>Executive summary</b>	<b>5</b>
<b>Summary</b>	<b>7</b>
<b>Introduction</b>	<b>10</b>
<b>Manufacturing processes</b>	<b>11</b>
<b>Supply and demand by region</b>	<b>12</b>
United States	12
– Producing companies	12
– Salient statistics	13
– Consumption	14
– Unsaturated polyester resins	15
– Hydrocarbon resins	15
– EPDM elastomers	15
– Polydicyclopentadiene	16
– Other	17
– Hexachlorocyclopentadiene	17
– Miscellaneous	17
– Price	18
– Trade	18
– Imports	18
– Exports	19
Canada	20
– Producing companies	20
– Salient statistics	20
– Trade	21
Mexico	21
– Salient statistics	21
– Trade	22
Central and South America	22
– Producing companies	22
– Salient statistics	23
Western Europe	23
– Producing companies	23
– Salient statistics	24
– Consumption	25
– Hydrocarbon resins	26
– Unsaturated polyester resins	27
– EPDM elastomers	27
– Cyclo-olefin copolymers	27
– Other	28
– Price	28

– Trade	29
– Imports	29
– Exports	29
Central and Eastern Europe	30
– Producing companies	30
– Salient statistics	31
Middle East and Africa	31
– Salient statistics	31
– Trade	32
China	32
– Producing companies	32
– Salient statistics	35
– Consumption	36
– Unsaturated polyester resins (UPR)	36
– Hydrocarbon resins	37
– Specialties	38
– Ethylidene norbornene (ENB)	38
– Other	38
– Price	39
– Trade	39
Japan	39
– Producing companies	39
– Salient statistics	41
– Consumption	41
– Hydrocarbon resins	42
– Unsaturated polyester resins	43
– Cyclo-olefin copolymers	44
– Polydicyclopentadiene	44
– Ethylidene norbornene (ENB)	45
– Other	45
– Price	45
– Trade	46
Other Asia	46
– Producing companies	46
– Salient statistics	48
– Consumption	49
Oceania	52
<b>Additional resources</b>	<b>53</b>
<b>Revisions</b>	<b>55</b>

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