



## APPENDIX TABLE 6-21

## Value added of chemicals excluding pharmaceuticals, by region, country, or economy: 2001–16

(Millions of current dollars)

Region, country, or economy	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
World	395,521	412,721	454,591	517,308	538,185	575,252	661,453	713,262	677,009	803,008	899,501	918,467	949,068	960,428	889,893	857,856
North America																
Canada	5,936	6,401	7,115	7,895	8,016	7,967	8,456	8,507	8,130	10,630	13,437	13,322	13,671	13,339	11,948	11,470
Mexico	9,202	9,662	8,847	10,444	10,772	13,621	14,054	15,591	12,511	14,679	15,300	17,334	18,140	14,922	13,152	11,347
United States	126,204	130,267	130,389	140,466	139,478	156,074	166,374	170,054	182,135	198,447	206,867	216,734	225,460	228,519	222,534	216,791
Central and South America																
Argentina	4,546	1,705	2,431	3,106	3,847	4,552	5,505	7,378	7,528	9,247	11,221	12,200	12,043	10,508	9,616	7,886
Bolivia	56	53	55	58	62	66	69	102	120	122	134	141	155	165	175	200
Brazil	11,166	9,790	11,488	14,181	15,734	17,755	23,395	28,636	22,786	30,760	36,028	33,051	32,509	32,662	19,186	18,745
Chile	193	189	249	303	492	370	399	381	562	757	756	768	920	939	1,001	1,003
Colombia	1,417	1,524	1,595	1,804	2,141	2,364	2,741	3,348	3,259	3,804	4,031	4,376	4,407	4,274	3,318	3,068
Costa Rica	171	166	176	175	180	204	246	275	240	310	349	374	395	390	379	376
Ecuador	406	440	462	485	466	484	497	584	682	699	743	834	904	1,125	1,115	983
Honduras	119	113	115	100	122	120	130	150	149	139	170	188	191	197	195	188
Panama	21	19	19	20	21	23	31	35	39	39	41	56	57	60	59	59
Peru	625	703	717	923	1,075	1,231	1,422	1,620	1,610	1,966	2,248	2,342	2,357	2,218	2,054	1,981



Region, country, or economy	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Uruguay	129	105	99	108	122	142	153	232	183	235	303	330	353	386	374	342
Venezuela	1,724	1,184	1,087	1,446	1,774	2,100	2,589	3,969	4,654	2,778	3,419	4,077	3,848	3,102	5,062	989
Europe																
EU	97,659	105,336	122,097	134,970	140,250	143,285	164,280	168,559	137,791	153,478	167,301	153,440	157,825	163,642	142,975	135,034
Austria	1,520	1,447	1,789	1,991	2,022	2,419	2,889	2,964	2,770	3,163	4,092	4,218	4,240	4,227	3,813	3,714
Belgium	5,433	5,835	6,771	7,680	8,309	8,298	9,137	9,135	7,895	8,282	9,267	8,682	9,349	9,324	8,732	8,038
Bulgaria	146	146	164	180	197	204	240	92	149	176	260	199	191	204	164	159
Czech Republic	706	712	882	1,067	1,247	1,212	1,474	1,730	1,149	1,506	1,660	1,524	1,458	1,589	1,270	1,094
Denmark	848	835	1,133	1,287	1,289	1,308	1,332	1,672	1,713	1,924	1,980	2,182	2,431	2,602	2,412	2,392
Finland	1,282	1,249	1,494	1,880	1,827	1,843	2,327	2,374	1,916	2,020	2,732	2,254	2,430	2,507	2,187	2,115
France	11,396	10,644	12,602	14,282	15,330	15,224	17,811	19,539	18,146	17,098	17,843	16,013	16,640	16,630	13,660	13,514
Germany	28,668	31,028	36,182	40,540	40,715	42,467	49,081	52,437	44,942	51,026	58,330	52,494	54,240	54,173	44,473	42,285
Greece	684	685	826	992	942	872	1,030	1,275	1,134	954	917	722	829	809	616	642
Hungary	470	523	593	725	745	856	1,105	1,108	617	647	753	653	669	695	616	578
Ireland	6,080	8,508	8,434	8,095	7,288	7,071	9,013	8,848	7,207	8,635	8,270	8,439	8,206	12,228	13,964	12,326
Italy	8,212	9,046	10,152	11,488	11,494	11,787	13,525	13,311	11,849	12,042	12,056	10,742	10,818	10,669	8,472	8,317
Netherlands	6,868	7,719	9,480	11,622	12,009	12,965	14,825	15,241	10,190	13,946	16,322	14,873	14,082	13,794	12,211	12,485
Poland	2,063	2,000	2,137	2,648	3,059	2,886	3,699	4,500	3,129	3,722	4,607	3,842	3,986	3,756	2,943	2,767
Portugal	566	616	750	887	882	902	1,050	1,038	877	972	1,020	741	774	764	602	573

Region, country, or economy	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Romania	187	197	190	235	309	449	625	800	668	692	1,038	636	713	746	538	482
Slovakia	126	146	142	162	186	243	298	294	216	306	468	269	309	283	240	215
Spain	5,684	6,335	7,446	8,883	9,332	9,519	10,852	11,459	8,319	9,692	10,834	9,087	8,880	9,040	6,884	6,790
Sweden	2,026	2,083	2,113	2,483	2,757	2,779	3,368	3,046	2,932	3,112	3,173	3,136	3,438	3,433	2,892	2,690
United Kingdom	14,695	15,584	18,819	17,842	20,309	19,982	20,599	17,696	11,973	13,565	11,678	12,736	14,142	16,169	16,288	13,860
Other Europe																
Norway	886	844	1,226	1,315	1,629	1,647	2,229	2,201	1,719	1,972	2,500	2,047	2,029	1,889	1,438	1,297
Russia	1,931	2,955	4,081	6,360	9,056	10,426	12,751	23,052	10,677	13,115	19,203	17,345	16,356	15,573	11,425	11,868
Switzerland	1,969	2,356	2,638	2,914	3,069	3,356	3,743	4,250	4,302	4,544	4,619	3,457	3,668	3,780	3,787	3,772
Turkey	1,614	1,623	2,088	2,377	1,585	2,229	2,339	2,931	2,316	2,849	3,460	3,025	3,112	3,011	2,538	2,382
Ukraine	174	212	277	422	566	645	805	1,023	378	541	858	902	1,542	1,056	367	329
Middle East																
Bahrain	51	53	57	62	83	112	144	183	145	167	192	202	215	222	186	190
Iran	1,644	2,114	1,950	2,794	2,634	3,852	5,897	6,307	7,743	8,271	12,642	9,482	7,153	7,831	7,447	8,018
Israel	380	407	442	563	682	810	915	1,368	1,231	1,290	1,501	1,333	1,421	1,410	1,321	1,288
Jordan	270	332	306	349	354	441	522	636	650	612	587	598	658	525	503	472
Kuwait	168	279	353	471	527	387	519	623	608	770	966	1,175	1,217	1,109	824	755
Oman	224	231	254	282	350	316	382	513	1,287	1,002	2,334	3,583	3,673	3,437	2,789	2,293
Qatar	99	105	190	488	512	557	1,237	2,555	337	1,314	1,863	2,307	2,376	2,499	2,306	2,140



Region, country, or economy	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Saudi Arabia	2,478	2,606	3,144	3,436	4,050	4,607	7,856	8,364	9,205	11,603	12,925	13,837	13,879	15,391	12,227	10,816
United Arab Emirates	74	77	82	91	103	115	125	146	125	135	156	171	179	183	162	162
Africa																
Cameroon	11	31	30	41	43	45	51	87	87	88	99	99	110	120	106	113
Egypt	755	701	575	753	875	963	1,196	1,514	1,665	1,992	2,472	2,943	2,621	3,252	3,667	3,111
Ghana	79	91	111	124	148	175	188	190	155	181	224	204	213	186	148	154
Kenya	120	119	145	163	160	188	235	272	270	282	279	313	327	347	351	356
Morocco	459	521	579	607	797	742	969	1,157	1,056	1,396	1,909	1,721	2,050	2,350	2,077	2,037
Nigeria	312	423	467	562	742	996	1,166	1,455	1,367	1,716	2,163	2,581	3,346	3,966	3,452	2,768
Senegal	69	87	105	110	107	89	83	104	95	99	139	111	93	91	98	96
South Africa	2,857	2,774	4,263	5,276	5,669	3,564	3,606	3,862	3,816	4,203	3,893	4,229	3,998	3,901	3,393	3,001
Tunisia	253	163	189	224	260	288	540	717	623	755	611	677	650	690	582	520
Asia																
Bangladesh	205	232	252	272	297	307	360	400	548	531	501	474	591	674	670	715
China	33,983	36,714	43,679	56,156	62,766	74,293	100,065	120,193	127,065	163,643	214,757	221,443	242,156	250,293	248,493	241,652
India	5,034	5,312	6,058	7,118	8,129	8,990	11,758	12,827	13,305	15,775	21,693	16,722	17,435	16,829	17,140	17,149
Indonesia	1,649	1,730	2,453	1,819	2,646	4,348	6,000	7,728	7,355	8,976	12,350	13,473	17,468	17,695	16,738	18,075
Japan	56,493	57,146	63,165	69,216	66,808	61,299	61,763	59,793	57,557	73,973	48,927	73,651	61,640	57,325	47,089	49,759
Malaysia	1,720	2,101	2,656	3,586	3,749	4,975	4,655	5,283	4,407	5,847	6,194	6,542	6,168	6,269	5,600	5,365



Region, country, or economy	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Pakistan	847	929	1,252	1,777	2,122	1,881	2,138	2,480	2,038	2,412	3,039	3,124	3,080	3,379	3,390	3,383
Philippines	565	619	605	660	614	706	702	684	746	722	1,022	1,101	1,562	1,629	1,803	1,685
Singapore	1,296	1,615	1,896	2,911	2,586	2,483	3,381	1,513	2,423	3,491	4,005	2,657	4,195	4,462	3,796	3,557
South Korea	7,437	8,649	9,680	11,759	13,074	13,350	14,966	13,457	12,815	17,391	24,254	25,272	28,249	30,701	28,262	26,567
Sri Lanka	99	117	135	149	195	1,273	643	348	352	361	432	432	494	593	598	554
Taiwan	6,402	6,759	7,124	9,597	10,161	7,631	8,949	6,271	8,207	12,642	11,839	9,455	10,154	10,005	12,074	11,391
Thailand	535	889	1,050	1,111	1,195	1,328	1,585	1,974	2,108	2,824	3,479	3,498	3,606	3,524	3,137	2,999
Vietnam	354	415	459	560	699	826	1,157	1,891	1,534	1,466	1,673	1,821	1,856	1,970	2,099	2,116
Australia and Oceania																
Australia	2,133	2,367	3,200	3,813	3,964	4,047	4,783	4,982	3,838	5,276	6,746	6,152	5,535	5,059	4,042	3,867
New Zealand	314	361	434	532	627	609	711	505	472	692	646	741	753	755	630	621

EU = European Union.

**Note(s)**

Value added is the amount contributed by a country, firm, or other entity to the value of a good or service and excludes purchases of domestic and imported materials and inputs. Data are not available for EU members Cyprus, Estonia, Latvia, Lithuania, Luxembourg, Malta, and Slovenia. China includes Hong Kong. Detail may not add to total because of rounding or minor discrepancies. See Appendix Table 6-1 for a full list of countries and economies in each region.

**Source(s)**

IHS Global Insight, World Industry Service database, accessed 17 July 2017.

*Science and Engineering Indicators 2018*