



MINERAL INDUSTRY SURVEYS



U. S. DEPARTMENT OF THE INTERIOR
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APPARENT CONSUMPTION OF INDUSTRIAL EXPLOSIVES AND BLASTING AGENTS IN THE UNITED STATES, 1982

Apparent consumption of explosives and blasting agents in the United States decreased 10% to 3.9 billion pounds, according to the Bureau of Mines, U.S. Department of the Interior. Apparent consumption is measured by sales reported by manufacturers.

Permissibles showed a decrease in consumption of 13% compared with 1981 and "Other high explosives" consumption decreased 30% compared with 1981.

All principal consuming industries except the coal mining industry used fewer quantities of explosives and blasting agents in 1982 than in 1981. About 58% of the total weight was utilized in the mining of coal. Nearly all permissibles and 61% of ammonium nitrate fuel-mixed blasting agents and unprocessed ammonium nitrate were consumed in coal mining. Other high explosives were used primarily in quarrying and nonmetal mining (27%) and construction (24%). The major use of water gels and slurries was in coal mining (33%).

Seven States collectively consumed 57% of all explosives and blasting agents used in the United States in 1982. These were, in order of consumption, Kentucky, Pennsylvania, West Virginia, Wyoming, Alabama, Ohio, and Indiana.

Classification of Industrial Explosives and Blasting Agents

"Apparent consumption" of explosives and blasting agents, as used in this report, means sales reported to the Institute of Makers of Explosives (IME) by IME members and provided to the Bureau of Mines on a proprietary basis, plus sales by nonmember manufacturers reported directly to the Bureau on Form 6-1439-A. Classification of explosives and blasting agents by type and use appears as reported by the manufacturers. Sales of explosives and blasting agents imported by nonmanufacturers are not included, but may be locally important. Some quantities are published in such a way as to avoid disclosing company proprietary data.

The principal distinction between explosives and blasting agents is related to their sensitivity to initiation--explosives are cap-sensitive but blasting agents are not, and therefore require a primer. Only "high" explosives are currently reported. "Low" explosives, which burn very rapidly but do not detonate, include principally black powder and propellants. Black powder has not been reported in industrial use since 1971. Both explosives and blasting agents vary widely in composition, although most blasting agents are essentially mixtures of ammonium nitrate plus a fuel.

Water gels and slurries may be either explosives or blasting agents, but for convenience are classified separately in a recognizable category.

The five product classifications used in this report are the same as those adopted by IME. These are:

1. Permissibles.--Grades of high explosives approved by brand name by the U.S. Bureau of Mines or the Mine Safety and Health Administration for use, in a prescribed manner, in underground coal mines, including water gels and slurries approved as permissibles.

2. Other High Explosives.--All high explosives except

a) permissibles and

b) any water gels or slurries that would otherwise be classified as high explosives.

Included in the "Other High Explosives" classification are all formulations packaged in metal containers.

3. Packaged and Bulk Water Gels and Slurries.--All water gels and slurries, packaged or in bulk, made by addition of more than 5% water to high explosives or blasting agents, except those approved as permissibles.

4. Ammonium Nitrate Fuel-Mixed Blasting Agents.--Without regard to packaging or container.

5. Unprocessed Ammonium Nitrate.--Prilled or grained ammonium nitrate for use in blasting agents.

Companies covered by this report, including IME members, are:

American Cyanamid Company--Wayne, New Jersey
Apache Powder Company--Benson, Arizona
Atlas Powder Company--Dallas, Texas
Austin Powder Company--Cleveland, Ohio
C-I-L Inc.--Willowdale, Ontario, Canada
Columbia Nitrogen Corp.--Augusta, Georgia
E. I. du Pont de Nemours & Co., Inc.--Wilmington, Delaware
Goex Inc.--Cleburne, Texas
W.R. Grace & Co. ACG--Memphis, Tennessee
Gulf Oil Chemicals Company--Houston, Texas
Hawkeye Chemical Company--Clinton, Iowa
Hercules, Inc.--Wilmington, Delaware
Independent Explosives Company of Pennsylvania--Scranton, Pennsylvania
Ireco Chemicals--Salt Lake City, Utah
Kaiser Aluminum & Chemical Corp.--Savannah, Georgia
Mining Services International--Salt Lake City, Utah
Monsanto Co.--St. Louis, Missouri
Nitrochem Energy Corp.--Biwabik, Minnesota
Nitroparaffins Division, International Minerals & Chemical Corp.--Des Plaines, Illinois
Phillips Chemical Co.--Bartlesville, Oklahoma
Sierra Chemical Company--Reno, Nevada
Southern Explosives Corporation--Glasgow, Kentucky
Trojan Corp.--Salt Lake City, Utah
Union Oil Company of California--Los Angeles, California
USS Agri-Chemicals--Atlanta, Georgia

TABLE 1. - Salient statistics of industrial explosives and blasting agents sold for consumption in the United States, 1981-82
(Thousand pounds)

Class	1981	1982
Permissibles-----	52,562	45,788
Other high explosives-----	157,276	<u>1</u> /110,005
Water gels and slurries <u>1</u> /-----	397,243	311,694
Ammonium nitrate fuel-mixed blasting agents <u>1</u> /----	965,657	820,942
Unprocessed ammonium nitrate <u>2</u> /-----	2,768,311	2,622,062
Total-----	4,341,049	3,910,491

1/ Some quantities of this class of explosive are included with "Unprocessed ammonium nitrate" to avoid disclosing company proprietary data.

2/ Includes some quantities of other high explosives (1982), water gels and slurries and ammonium nitrate fuel-mixed blasting agents.

TABLE 2. - Industrial explosives and blasting agents sold for consumption in the United States by class and use, 1981-82
(Thousand pounds)

Class	Coal mining 1/		Metal mining 1/		Quarrying and nonmetal mining 1/		Construction work 1/		All other purposes 2/		Total	
	1981	1982	1981	1982	1981	1982	1981	1982	1981	1982	1981	1982
Permissibles-----	49,814	43,401	166	287	1,638	1,317	831	731	113	52	52,562	45,788
Other high explosives 3/---	22,314	19,360	23,384	13,108	43,223	29,322	36,611	26,802	31,744	21,413	157,276	110,005
Water gels and slurries 3/-----	99,796	104,364	174,528	90,738	86,671	80,503	32,226	30,021	4,022	6,068	397,243	311,694
Ammonium nitrate fuel-mixed blasting agents 3/	689,076	621,531	60,752	21,770	131,932	112,822	82,692	61,074	1,205	3,745	965,657	820,942
Unprocessed ammonium nitrate 4/-----	1,388,262	1,480,909	436,619	404,481	230,307	199,389	177,729	145,317	535,394	391,966	2,768,311	2,622,062
Total-----	2,249,262	2,269,565	695,449	530,384	493,771	423,353	330,089	263,945	572,478	423,244	4,341,049	3,910,491

1/ Some quantities of this use are included with "All other purposes" to avoid disclosing company proprietary data.

2/ Includes some quantities from coal mining, metal mining, quarrying and nonmetal mining, and construction work.

3/ Some quantities of this class of explosive are included with "Unprocessed ammonium nitrate" to avoid disclosing company proprietary data.

4/ Includes some quantities of other higher explosives (1982), water gels and slurries and ammonium nitrate fuel-mixed blasting agents.

TABLE 3. - Industrial explosives and blasting agents sold for consumption
in the United States, by State and use, 1982
(Thousand pounds)

State	Use					Total
	Coal mining	Metal mining	Quarrying and nonmetal mining	Construction work	All other purposes	
Alabama-----	146,886	469	3,812	57,913	144	209,224
Alaska-----	578	10,383	273	8,333	45	19,612
Arizona-----	37,882	102,564	1,415	247	241	142,349
Arkansas-----	401	2	7,210	2,502	611	10,726
California-----	11	8,261	6,198	3,680	34	18,184
Colorado-----	45,373	20,122	1,740	3,726	2,153	73,114
Connecticut-----	880	---	5,763	1,011	---	7,654
Delaware-----	---	---	---	---	3	3
District of Columbia ^{1/}	---	---	---	---	---	---
Florida-----	32	---	11,811	5,997	63	17,903
Georgia-----	1,768	18	16,579	1,476	---	19,841
Hawaii-----	---	---	152	105	---	257
Idaho-----	---	42,637	1,260	331	238	44,466
Illinois-----	88,715	41	46,877	4,893	3,557	144,083
Indiana-----	148,372	---	10,484	6,349	368	165,573
Iowa-----	4,046	---	19,334	440	11,899	35,719
Kansas-----	203	---	6,088	2,314	2,231	10,836
Kentucky-----	661,717	1	28,264	40,698	41,490	772,170
Louisiana-----	20	---	422	710	2,330	3,482
Maine-----	---	---	551	730	50	1,331
Maryland-----	3,403	---	6,704	11,145	---	21,252
Massachusetts-----	---	---	3,859	1,072	---	4,931
Michigan-----	---	16,423	6,160	372	7,747	30,702
Minnesota-----	---	55,338	4,415	321	12,671	72,745
Mississippi-----	---	---	181	514	1,575	2,270
Missouri-----	20,448	6,450	23,774	10,604	2,317	63,593
Montana-----	42,501	69,484	738	2,151	3,771	118,645
Nebraska-----	---	---	---	1,977	2	1,979
Nevada-----	20	28,318	2,311	1,261	3,472	35,382
New Hampshire-----	---	---	779	2,499	---	3,278
New Jersey-----	---	25	3,010	1,353	49	4,437
New Mexico-----	43,873	15,084	2,152	2,381	453	63,943
New York-----	311	476	6,596	3,994	125	11,502
North Carolina-----	747	20	34,690	1,628	31	37,116
North Dakota-----	2,000	1,167	---	---	1,274	4,441
Ohio-----	172,765	---	14,310	6,278	15,752	209,105
Oklahoma-----	4,510	4,487	13,568	14,517	1,938	39,020
Oregon-----	---	2,784	3,380	5,718	120	12,002
Pennsylvania-----	330,040	20	71,149	8,809	2,296	412,314
Rhode Island-----	---	---	33	405	---	438
South Carolina-----	---	---	1,227	397	---	1,624
South Dakota-----	---	2,052	362	---	10	2,424
Tennessee-----	20,160	2,849	14,658	10,091	193	47,951
Texas-----	156	131	18,219	17,187	4,730	40,423
Utah-----	343	57,970	3,020	2,639	3,559	67,531
Vermont-----	30	---	618	1,156	---	1,804
Virginia-----	123,950	---	5,951	3,145	---	133,046
Washington-----	5,011	13,408	1,037	4,469	5	23,930
West Virginia-----	226,818	---	2,538	4,933	6,397	240,686
Wisconsin-----	---	213	2,371	1,211	988	4,783
Wyoming-----	135,595	69,187	7,310	263	4,621	216,976
Undistributed-----	<u>2/</u>	<u>2/</u>	<u>2/</u>	<u>2/</u>	283,691	283,691
Total-----	2,269,565	530,384	423,353	263,945	423,244	3,910,491

^{1/} Included with Maryland.

^{2/} Quantities included with "All other purposes" to avoid disclosing company proprietary data.

TABLE 4. - Industrial explosives and blasting agents sold for consumption in the United States, by State and class, 1982
(Thousand pounds)

State	Class					Total
	Fixed high explosives	Blasting agents				
	Permissibles	Other high explosives 1/	Water gels and slurries 1/	Ammonium nitrate fuel-mixed blasting agents 1/	Unprocessed ammonium nitrate 2/	
Alabama-----	2,397	1,629	9,714	14,514	180,970	209,224
Alaska-----	---	2,425	4,064	936	12,187	19,612
Arizona-----	---	1,058	29,216	5,454	106,621	142,349
Arkansas-----	---	1,224	2,406	2,528	4,568	10,726
California-----	---	1,782	5,486	2,302	8,614	18,184
Colorado-----	261	2,715	5,998	6,508	57,632	73,114
Connecticut-----	---	1,062	2,538	824	3,230	7,654
Delaware-----	---	---	3	---	---	3
District of Columbia 3/	---	---	---	---	---	---
Florida-----	---	2,679	13,022	1,683	519	17,903
Georgia-----	9	1,642	5,623	5,129	7,438	19,841
Hawaii-----	---	20	237	---	---	257
Idaho-----	---	673	806	285	42,702	44,466
Illinois-----	481	2,672	6,063	77,949	56,918	144,083
Indiana-----	7	1,346	8,931	101,823	53,466	165,573
Iowa-----	66	2,062	7,474	594	25,523	35,719
Kansas-----	14	635	1,367	5,884	2,936	10,836
Kentucky-----	23,018	7,537	8,153	203,054	530,408	772,170
Louisiana-----	---	2,472	1,010	---	---	3,482
Maine-----	---	413	360	558	---	1,331
Maryland-----	---	1,183	3,496	5,008	11,565	21,252
Massachusetts-----	---	1,839	463	2,629	---	4,931
Michigan-----	4	1,160	8,096	6,682	14,760	30,702
Minnesota-----	---	194	30,763	3,845	37,943	72,745
Mississippi-----	---	1,621	459	190	---	2,270
Missouri-----	5	7,237	4,230	18,503	33,618	63,593
Montana-----	---	4,780	11,707	87	102,071	118,645
Nebraska-----	2	131	228	86	1,532	1,979
Nevada-----	---	403	1,665	5,363	27,951	35,382
New Hampshire-----	---	1,573	299	1,406	---	3,278
New Jersey-----	---	1,071	1,381	1,979	6	4,437
New Mexico-----	4	2,985	12,656	1,909	46,389	63,943
New York-----	5	2,322	1,998	3,670	3,507	11,502
North Carolina-----	---	868	9,977	4,260	22,011	37,116
North Dakota-----	---	1,274	---	---	3,167	4,441
Ohio-----	533	2,678	3,067	42,651	160,176	209,105
Oklahoma-----	---	2,405	4,277	17,527	14,811	39,020
Oregon-----	---	1,867	729	2,129	7,277	12,002
Pennsylvania-----	1,110	8,559	35,572	79,460	287,613	412,314
Rhode Island-----	---	142	28	268	---	438
South Carolina-----	---	71	71	1,482	---	1,624
South Dakota-----	---	10	452	---	1,962	2,424
Tennessee-----	958	5,657	2,710	21,015	17,611	47,951
Texas-----	---	6,322	3,422	5,660	25,019	40,423
Utah-----	287	4,962	15,084	116	47,082	67,531
Vermont-----	---	210	650	944	---	1,804
Virginia-----	10,893	4,167	3,591	58,393	56,002	133,046
Washington-----	---	3,163	1,161	119	19,487	23,930
West Virginia-----	5,651	3,758	1,978	81,582	147,717	240,686
Wisconsin-----	---	658	2,745	397	983	4,783
Wyoming-----	83	2,689	36,268	23,557	154,379	216,976
Undistributed-----	---	---	---	---	283,691	283,691
Total-----	45,788	110,005	311,694	820,942	2,622,062	3,910,491

1/ Some quantities of this class of explosives are included with "Unprocessed ammonium nitrate" to avoid disclosing company proprietary data.

2/ Includes some quantities of other high explosives, water gels and slurries and ammonium nitrate fuel-mixed blasting agents.

3/ Included with Maryland.

TABLE 5. - Permissible explosives sold for consumption in the United States,
by State and use, 1982
(Thousand pounds)

State	Use					Total
	Coal mining	Metal mining	Quarrying and nonmetal mining	Construction work	All other purposes	
Alabama-----	1,432	---	702	261	2	2,397
Alaska-----	---	---	---	---	---	---
Arizona-----	---	---	---	---	---	---
Arkansas-----	---	---	---	---	---	---
California-----	---	---	---	---	---	---
Colorado-----	218	12	---	---	31	261
Connecticut-----	---	---	---	---	---	---
Delaware-----	---	---	---	---	---	---
District of Columbia 1/	---	---	---	---	---	---
Florida-----	---	---	---	---	---	---
Georgia-----	---	---	9	---	---	9
Hawaii-----	---	---	---	---	---	---
Idaho-----	---	---	---	---	---	---
Illinois-----	330	---	96	55	---	481
Indiana-----	7	---	---	---	---	7
Iowa-----	63	---	---	---	3	66
Kansas-----	---	---	14	---	---	14
Kentucky-----	22,944	---	74	---	---	23,018
Louisiana-----	---	---	---	---	---	---
Maine-----	---	---	---	---	---	---
Maryland-----	---	---	---	---	---	---
Massachusetts-----	---	---	---	---	---	---
Michigan-----	---	---	4	---	---	4
Minnesota-----	---	---	---	---	---	---
Mississippi-----	---	---	---	---	---	---
Missouri-----	---	---	3	---	2	5
Montana-----	---	---	---	---	---	---
Nebraska-----	---	---	---	2	---	2
Nevada-----	---	---	---	---	---	---
New Hampshire-----	---	---	---	---	---	---
New Jersey-----	---	---	---	---	---	---
New Mexico-----	---	---	---	4	---	4
New York-----	---	---	---	5	---	5
North Carolina-----	---	---	---	---	---	---
North Dakota-----	---	---	---	---	---	---
Ohio-----	457	---	76	---	---	533
Oklahoma-----	---	---	---	---	---	---
Oregon-----	---	---	---	---	---	---
Pennsylvania-----	937	---	65	108	---	1,110
Rhode Island-----	---	---	---	---	---	---
South Carolina-----	---	---	---	---	---	---
South Dakota-----	---	---	---	---	---	---
Tennessee-----	404	---	274	280	---	958
Texas-----	---	---	---	---	---	---
Utah-----	---	275	---	---	12	287
Vermont-----	---	---	---	---	---	---
Virginia-----	10,893	---	---	---	---	10,893
Washington-----	---	---	---	---	---	---
West Virginia-----	5,635	---	---	16	---	5,651
Wisconsin-----	---	---	---	---	---	---
Wyoming-----	81	---	---	---	2	83
Total-----	43,401	287	1,317	731	52	45,788

1/ Included with Maryland.

TABLE 6. - Other high explosives sold for consumption in the United States, by State and use, 1982 ^{1/}
(Thousand pounds)

State	Use					Total
	Coal mining	Metal mining	Quarrying and nonmetal mining	Construction work	All other purposes	
Alabama-----	526	---	422	539	142	1,629
Alaska-----	---	---	---	2,380	45	2,425
Arizona-----	---	603	414	22	19	1,058
Arkansas-----	2	2	379	457	384	1,224
California-----	11	52	258	1,435	26	1,782
Colorado-----	333	871	---	46	1,465	2,715
Connecticut-----	---	---	800	262	---	1,062
Delaware-----	---	---	---	---	---	---
District of Columbia ^{2/}	---	---	---	---	---	---
Florida-----	32	---	1,819	765	63	2,679
Georgia-----	60	---	1,356	226	---	1,642
Hawaii-----	---	---	---	20	---	20
Idaho-----	---	145	---	290	238	673
Illinois-----	540	39	1,719	374	---	2,672
Indiana-----	584	---	634	128	---	1,346
Iowa-----	28	---	1,853	1	180	2,062
Kansas-----	203	---	122	8	302	635
Kentucky-----	5,492	1	1,083	410	551	7,537
Louisiana-----	---	---	74	602	1,796	2,472
Maine-----	---	---	176	236	1	413
Maryland-----	49	---	792	342	---	1,183
Massachusetts-----	---	---	1,584	255	---	1,839
Michigan-----	---	172	884	15	89	1,160
Minnesota-----	---	57	117	20	---	194
Mississippi-----	---	---	26	340	1,255	1,621
Missouri-----	19	3,743	2,692	779	4	7,237
Montana-----	94	1,500	298	500	2,388	4,780
Nebraska-----	---	---	---	129	2	131
Nevada-----	---	324	23	17	39	403
New Hampshire-----	---	---	486	1,087	---	1,573
New Jersey-----	---	---	719	324	28	1,071
New Mexico-----	243	1,952	164	604	22	2,985
New York-----	122	476	652	947	125	2,322
North Carolina-----	134	---	559	144	31	868
North Dakota-----	---	---	---	---	1,274	1,274
Ohio-----	722	---	1,597	253	106	2,678
Oklahoma-----	23	---	208	236	1,938	2,405
Oregon-----	---	---	658	1,102	107	1,867
Pennsylvania-----	3,513	18	3,066	1,885	77	8,559
Rhode Island-----	---	---	6	136	---	142
South Carolina-----	---	---	2	69	---	71
South Dakota-----	---	---	---	---	10	10
Tennessee-----	524	400	1,924	2,809	---	5,657
Texas-----	45	---	244	1,769	4,264	6,322
Utah-----	343	1,541	20	374	2,684	4,962
Vermont-----	7	---	59	144	---	210
Virginia-----	1,281	---	1,199	1,687	---	4,167
Washington-----	11	1,179	85	1,885	3	3,163
West Virginia-----	3,582	---	29	147	---	3,758
Wisconsin-----	---	---	62	596	---	658
Wyoming-----	837	33	58	6	1,755	2,689
Total-----	19,360	13,108	29,322	26,802	21,413	110,005

^{1/} Some quantities of other high explosives are included with "Unprocessed ammonium nitrate" to avoid disclosing company proprietary data.

^{2/} Included with Maryland.

TABLE 7. - Packaged and bulk water gels and slurries sold for consumption in the United States, by State and use, 1982 ^{1/}
(Thousand pounds)

State	Use					Total
	Coal mining	Metal mining	Quarrying and nonmetal mining	Construction work	All other purposes	
Alabama-----	5,722	---	1,425	2,567	---	9,714
Alaska-----	---	---	69	3,995	---	4,064
Arizona-----	200	29,016	---	---	---	29,216
Arkansas-----	8	---	1,743	655	---	2,406
California-----	---	11	3,828	1,642	5	5,486
Colorado-----	1,490	3,607	508	115	278	5,998
Connecticut-----	---	---	1,873	665	---	2,538
Delaware-----	---	---	---	---	3	3
District of Columbia ^{2/}	---	---	---	---	---	---
Florida-----	---	---	9,448	3,574	---	13,022
Georgia-----	192	---	5,025	406	---	5,623
Hawaii-----	---	---	152	85	---	237
Idaho-----	---	771	13	22	---	806
Illinois-----	2,692	---	2,966	405	---	6,063
Indiana-----	6,839	---	1,590	501	1	8,931
Iowa-----	146	---	7,102	202	24	7,474
Kansas-----	---	---	1,037	260	70	1,367
Kentucky-----	5,026	---	2,725	402	---	8,153
Louisiana-----	20	---	348	108	534	1,010
Maine-----	---	---	121	210	29	360
Maryland-----	266	---	3,093	137	---	3,496
Massachusetts-----	---	---	256	207	---	463
Michigan-----	---	7,266	796	34	---	8,096
Minnesota-----	---	29,599	1,077	87	---	30,763
Mississippi-----	---	---	135	4	320	459
Missouri-----	3	513	2,668	1,032	14	4,230
Montana-----	9,409	---	40	1,651	607	11,707
Nebraska-----	---	---	---	228	---	228
Nevada-----	---	150	431	23	1,061	1,665
New Hampshire-----	---	---	11	288	---	299
New Jersey-----	---	19	1,094	268	---	1,381
New Mexico-----	8,916	2,882	---	427	431	12,656
New York-----	189	---	849	960	---	1,998
North Carolina-----	---	---	9,519	458	---	9,977
North Dakota-----	---	---	---	---	---	---
Ohio-----	427	---	2,180	420	40	3,067
Oklahoma-----	309	---	2,369	1,599	---	4,277
Oregon-----	---	7	160	561	1	729
Pennsylvania-----	26,026	2	8,317	1,226	1	35,572
Rhode Island-----	---	---	2	26	---	28
South Carolina-----	---	---	31	40	---	71
South Dakota-----	---	452	---	---	---	452
Tennessee-----	93	579	1,477	561	---	2,710
Texas-----	---	---	1,369	1,587	466	3,422
Utah-----	---	13,956	---	265	863	15,084
Vermont-----	---	---	382	268	---	650
Virginia-----	1,770	---	1,661	160	---	3,591
Washington-----	---	281	96	784	---	1,161
West Virginia-----	1,344	---	249	385	---	1,978
Wisconsin-----	---	213	2,172	355	5	2,745
Wyoming-----	33,277	1,414	96	166	1,315	36,268
Total-----	104,364	90,738	80,503	30,021	6,068	311,694

^{1/} Some quantities of packaged and bulk water gels and slurries are included with "Unprocessed ammonium nitrate" to avoid disclosing company proprietary data.

^{2/} Included with Maryland.

TABLE 8. - Ammonium nitrate fuel-mixed blasting agents sold for consumption
in the United States, by State and use, 1982 ^{1/}
(Thousand pounds)

State	Use					Total
	Coal mining	Metal mining	Quarrying and nonmetal mining	Construction work	All other purposes	
Alabama-----	13,601	---	134	779	---	14,514
Alaska-----	578	---	---	358	---	936
Arizona-----	1,147	3,556	405	169	177	5,454
Arkansas-----	391	---	1,350	787	---	2,528
California-----	---	79	1,635	585	3	2,302
Colorado-----	6,495	---	---	13	---	6,508
Connecticut-----	---	---	762	62	---	824
Delaware-----	---	---	---	---	---	---
District of Columbia ^{2/}	---	---	---	---	---	---
Florida-----	---	---	25	1,658	---	1,683
Georgia-----	44	---	4,971	114	---	5,129
Hawaii-----	---	---	---	---	---	---
Idaho-----	---	285	---	---	---	285
Illinois-----	73,778	---	2,588	1,583	---	77,949
Indiana-----	87,851	---	8,252	5,720	---	101,823
Iowa-----	---	---	594	---	---	594
Kansas-----	---	---	3,838	2,046	---	5,884
Kentucky-----	179,837	---	9,739	13,478	---	203,054
Louisiana-----	---	---	---	---	---	---
Maine-----	---	---	254	284	20	558
Maryland-----	2,463	---	2,420	125	---	5,008
Massachusetts-----	---	---	2,019	610	---	2,629
Michigan-----	---	2,221	4,418	43	---	6,682
Minnesota-----	---	3,794	51	---	---	3,845
Mississippi-----	---	---	20	170	---	190
Missouri-----	8,048	484	4,416	5,518	37	18,503
Montana-----	87	---	---	---	---	87
Nebraska-----	---	---	---	86	---	86
Nevada-----	20	2,958	---	13	2,372	5,363
New Hampshire-----	---	---	282	1,124	---	1,406
New Jersey-----	---	---	1,197	761	21	1,979
New Mexico-----	---	103	1,796	10	---	1,909
New York-----	---	---	1,588	2,082	---	3,670
North Carolina-----	90	---	3,601	569	---	4,260
North Dakota-----	---	---	---	---	---	---
Ohio-----	36,654	---	3,373	2,624	---	42,651
Oklahoma-----	4,178	4,487	5,467	3,395	---	17,527
Oregon-----	---	---	1,233	884	12	2,129
Pennsylvania-----	42,881	---	32,551	2,947	1,081	79,460
Rhode Island-----	---	---	25	243	---	268
South Carolina-----	---	---	1,194	288	---	1,482
South Dakota-----	---	---	---	---	---	---
Tennessee-----	12,399	---	3,419	5,197	---	21,015
Texas-----	111	131	3,503	1,915	---	5,660
Utah-----	---	116	---	---	---	116
Vermont-----	23	---	177	744	---	944
Virginia-----	54,159	---	3,091	1,143	---	58,393
Washington-----	---	---	56	61	2	119
West Virginia-----	77,144	---	1,878	2,560	---	81,582
Wisconsin-----	---	---	137	260	---	397
Wyoming-----	19,552	3,556	363	66	20	23,557
Total-----	621,531	21,770	112,822	61,074	3,745	820,942

^{1/} Some quantities of ammonium nitrate fuel-mixed blasting agents are included with "Unprocessed ammonium nitrate" to avoid disclosing company proprietary data.

^{2/} Included with Maryland.

TABLE 9. - Unprocessed ammonium nitrate sold for consumption
in the United States, by State and use, 1982 ^{1/}
(Thousand pounds)

State	Use					Total
	Coal mining	Metal mining	Quarrying and nonmetal mining	Construction work	All other purposes	
Alabama-----	125,605	469	1,129	53,767	---	180,970
Alaska-----	---	10,383	204	1,600	---	12,187
Arizona-----	36,535	69,389	596	56	45	106,621
Arkansas-----	---	---	3,738	603	227	4,568
California-----	---	8,119	477	18	---	8,614
Colorado-----	36,837	15,632	1,232	3,552	379	57,632
Connecticut-----	880	---	2,328	22	---	3,230
Delaware-----	---	---	---	---	---	---
District of Columbia ^{2/}	---	---	---	---	---	---
Florida-----	---	---	519	---	---	519
Georgia-----	1,472	18	5,218	730	---	7,438
Hawaii-----	---	---	---	---	---	---
Idaho-----	---	41,436	1,247	19	---	42,702
Illinois-----	11,375	2	39,508	2,476	3,557	56,918
Indiana-----	53,091	---	8	---	367	53,466
Iowa-----	3,809	---	9,785	237	11,692	25,523
Kansas-----	---	---	1,077	---	1,859	2,936
Kentucky-----	448,418	---	14,643	26,408	40,939	530,408
Louisiana-----	---	---	---	---	---	---
Maine-----	---	---	---	---	---	---
Maryland-----	625	---	399	10,541	---	11,565
Massachusetts-----	---	---	---	---	---	---
Michigan-----	---	6,764	58	280	7,658	14,760
Minnesota-----	---	21,888	3,170	214	12,671	37,943
Mississippi-----	---	---	---	---	---	---
Missouri-----	12,378	1,710	13,995	3,275	2,260	33,618
Montana-----	32,911	67,984	400	---	776	102,071
Nebraska-----	---	---	---	1,532	---	1,532
Nevada-----	---	24,886	1,857	1,208	---	27,951
New Hampshire-----	---	---	---	---	---	---
New Jersey-----	---	6	---	---	---	6
New Mexico-----	34,714	10,147	192	1,336	---	46,389
New York-----	---	---	3,507	---	---	3,507
North Carolina-----	523	20	21,011	457	---	22,011
North Dakota-----	2,000	1,167	---	---	---	3,167
Ohio-----	134,505	---	7,084	2,981	15,606	160,176
Oklahoma-----	---	---	5,524	9,287	---	14,811
Oregon-----	---	2,777	1,329	3,171	---	7,277
Pennsylvania-----	256,683	---	27,150	2,643	1,137	287,613
Rhode Island-----	---	---	---	---	---	---
South Carolina-----	---	---	---	---	---	---
South Dakota-----	---	1,600	362	---	---	1,962
Tennessee-----	6,740	1,870	7,564	1,244	193	17,611
Texas-----	---	---	13,103	11,916	---	25,019
Utah-----	---	42,082	3,000	2,000	---	47,082
Vermont-----	---	---	---	---	---	---
Virginia-----	55,847	---	---	155	---	56,002
Washington-----	5,000	11,948	800	1,739	---	19,487
West Virginia-----	139,113	---	382	1,825	6,397	147,717
Wisconsin-----	---	---	---	---	983	983
Wyoming-----	81,848	64,184	6,793	25	1,529	154,379
Undistributed ^{3/}	^{4/}	^{4/}	^{4/}	^{4/}	283,691	283,691
Total-----	1,480,909	404,481	199,389	145,317	391,966	2,622,062

^{1/} Includes some quantities of other high explosives, packaged and bulk water gels and slurries and ammonium nitrate fuel-mixed blasting agents.

^{2/} Included with Maryland.

^{3/} Quantities undistributed to avoid disclosing company proprietary data.

^{4/} Undistributed quantity for this use is included with undistributed "All other purposes."