



# MINERAL INDUSTRY SURVEYS



U. S. DEPARTMENT OF THE INTERIOR  
BUREAU OF MINES  
WASHINGTON, D. C. 20241

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Explosives, Annual

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## APPARENT CONSUMPTION OF INDUSTRIAL EXPLOSIVES AND BLASTING AGENTS IN THE UNITED STATES, 1987

Apparent consumption of explosives and blasting agents in the United States during 1987 approximated 4.5 billion pounds, representing an annual growth of 15%, according to the Bureau of Mines, U.S. Department of the Interior. Apparent consumption is determined from reported manufacturer sales.

Unprocessed ammonium nitrate consumption improved by a significant 19% during the year and accounted for 91% of the increase in total explosives use. Liquids, and other high explosives increased by 15% and 9% respectively. Permissibles declined 4% compared to 1986.

All principal consuming industries except quarrying and nonmetal mining and all other purposes used larger quantities of explosives and blasting agents in 1987 than in 1986. About 72% of the total was utilized in the mining of coal. Nearly all permissibles and 77% of ammonium nitrate-fuel oil blasting agents and unprocessed ammonium nitrate were consumed in coal mining. Other high explosives were used primarily in quarrying and nonmetal mining (43%) and construction (30%). The major uses of water gels and slurries were in coal mining (41%) and quarrying and nonmetal mining (33%).

Seven States were collectively responsible for 55% of all explosives and blasting agents consumed in the United States in 1987. These were, in decreasing order of consumption: Kentucky, Pennsylvania, Ohio, West Virginia, Wyoming, Georgia, and Alabama.

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Prepared in the Branch of Industrial Minerals, August 3, 1988.

## 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 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 in a separate category.

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

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

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, Slurries, and Emulsions.--All water gels, slurries, and emulsions, 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 Oil Blasting Agents.--Without regard to packaging or container, and having a density less than 1.0 gram per cubic centimeter (cc).

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

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

- \* American Cyanamid Company--New Castle, Pennsylvania
- 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/Garden City, Georgia 1/
- E. I. du Pont de Nemours & Co., Inc.--Wilmington, Delaware
- \* El Dorado Chemical Co.--St. Louis, Missouri
- Ensign Bickford Company--Simsbury, Connecticut
- Goex Inc.--Cleburne, Texas
- \* W.R. Grace & Co. ACG--Memphis, Tennessee
- \* Hawkeye Chemical Company--Clinton, Iowa
- Independent Explosives Company of Pennsylvania--Scranton, Pennsylvania
- Ireco Incorporated--Salt Lake City, Utah
- Mining Services International--Salt Lake City, Utah
- Nitrochem Energy Corp.--Allentown, Pennsylvania
- Sierra Chemical Company--Reno, Nevada
- Southern Explosives Corporation--Glasgow, Kentucky
- \* Thermex Energy Corporation--Dallas, Texas
- Trojan Corp.--Salt Lake City, Utah
- \* UNOCAL Corporation--Los Angeles, California
- \* La Roche Ind., Inc.--Atlanta, Georgia

\* Indicates non IME members.

1/ Formerly, Kaichem International Corp.

TABLE 1.--Salient statistics of industrial explosives and blasting agents sold for consumption in the United States, 1986-87

(Thousand pounds)

Class	1986	1987
Permissibles-----	35,439	33,853
Other high explosives-----	131,789	143,247
Water gels, slurries, and emulsions-----	420,090	481,358
Ammonium nitrate-fuel oil blasting agents-----	648,438	629,915
Unprocessed ammonium nitrate-----	r/2,687,080	3,209,884
Total-----	r/3,922,836	4,498,257

r/Revised.

TABLE 2.--Industrial explosives and blasting agents sold for consumption in the United States, by class and use, 1986-87

(Thousand pounds)

Class	Coal mining		Metal mining		Quarrying and nonmetal mining <sup>1/</sup>		Construction work		All other purposes <sup>2/</sup>		Total	
	1986	1987	1986	1987	1986	1987	1986	1987	1986	1987	1986	1987
Permissibles-----	34,971	33,391	7	--	155	248	245	214	61	--	35,439	33,853
Other high explosives-----	18,004	23,171	7,027	9,013	63,249	62,250	37,403	43,355	6,106	5,458	131,789	143,247
Water gels and slurries-----	180,201	195,737	57,153	63,125	128,854	160,412	38,582	55,758	15,300	6,326	420,090	481,358
Ammonium nitrate-fuel oil blasting agents-----	416,914	399,728	32,670	29,269	117,785	134,337	53,821	63,860	27,248	2,721	648,438	629,915
Unprocessed ammonium nitrate-----	r/1,916,247	2,568,735	222,987	238,876	275,177	125,664	128,600	145,725	144,069	130,884	r/2,687,080	3,209,884
Total-----	r/2,566,337	3,220,762	319,844	340,283	585,220	482,911	258,651	308,912	192,784	145,389	r/3,922,836	4,498,257

r/Revised.

<sup>1/</sup>Some quantities of this use for 1987 are included with "All other purposes" to avoid disclosing company proprietary data.

<sup>2/</sup>Includes some quantities from quarrying and nonmetal mining for 1987.

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TABLE 3.--Industrial explosives and blasting agents sold for consumption in the United States, by State and use, 1987

(Thousand pounds)

State	Use					Total
	Coal mining	Metal mining	Quarrying and nonmetal mining <sup>1/</sup>	Construction work	All other purposes <sup>1/</sup>	
Alabama-----	190,363	137	14,113	2,962	139	207,714
Alaska-----	597	--	77	7,400	--	8,074
Arizona-----	41,565	93,953	3,168	610	384	139,680
Arkansas-----	686	211	6,387	6,476	335	14,095
California-----	17,990	2,370	15,800	14,420	52	50,632
Colorado-----	92,844	664	2,507	2,856	530	99,401
Connecticut-----	50	183	11,275	2,193	--	13,701
Delaware-----	--	--	--	11	--	11
District of Columbia <sup>2/</sup> -----	--	--	--	--	--	--
Florida-----	--	50	29,428	10,421	710	40,609
Georgia-----	178,016	--	33,321	1,099	10	212,446
Hawaii-----	--	--	453	23	271	747
Idaho-----	11,165	17,415	1,431	183	7	30,201
Illinois-----	91,714	376	19,662	4,651	1,525	117,928
Indiana-----	135,144	634	14,463	905	--	151,146
Iowa-----	7,838	--	11,952	3,014	5,224	28,028
Kansas-----	1,974	--	12,338	853	47	15,212
Kentucky-----	741,915	8,869	21,915	58,535	10,399	841,633
Louisiana-----	--	--	1,308	97	289	1,694
Maine-----	--	--	633	2,897	--	3,530
Maryland-----	1,399	22	4,564	1,071	--	7,056
Massachusetts-----	41	90	13,595	5,899	790	20,415
Michigan-----	2,356	33,832	11,030	950	1,826	49,994
Minnesota-----	3,661	55,562	3,920	1,606	4,221	68,970
Mississippi-----	--	--	74	43	313	430
Missouri-----	49,039	1,052	33,908	30,745	258	115,002
Montana-----	80,933	29,624	1,858	315	416	113,146
Nebraska-----	--	--	--	3,070	207	3,277
Nevada-----	43,871	36,634	2,336	1,410	54	84,305
New Hampshire-----	--	--	1,384	3,376	--	4,760
New Jersey-----	130,433	--	7,386	1,111	44	138,974
New Mexico-----	68,862	26,940	2,239	18,683	8,287	125,011
New York-----	2,472	169	11,836	4,503	--	18,980
North Carolina-----	19,305	395	43,165	3,041	--	65,906
North Dakota-----	169	--	--	1	23	193
Ohio-----	229,537	772	16,592	33,761	6,397	287,059
Oklahoma-----	13,559	2,042	17,660	8,271	211	41,743
Oregon-----	4,831	--	488	6,348	1	11,668
Pennsylvania-----	322,980	342	31,434	5,132	9,303	369,191
Rhode Island-----	--	--	587	746	--	1,333
South Carolina-----	--	--	1,799	352	--	2,151
South Dakota-----	1,900	46	122	1,801	146	4,015
Tennessee-----	54,437	1,923	22,750	13,826	5	92,941
Texas-----	23,604	54	21,932	17,448	1,382	64,420
Utah-----	12,163	12,513	2,237	304	23	27,240
Vermont-----	--	--	527	344	1,012	1,883
Virginia-----	121,598	147	12,990	2,822	44	137,601
Washington-----	9,403	6,649	6,310	7,025	20	29,407
West Virginia-----	263,133	938	2,661	10,223	3,534	280,489
Wisconsin-----	1,909	81	3,740	2,482	2,754	10,966
Wyoming-----	247,306	5,594	3,556	2,597	1,069	260,122
Undistributed-----	--	--	3/	--	83,127	83,127
Total-----	3,220,762	340,283	482,911	308,912	145,389	4,498,257

1/Some quantities of this use are included in "Undistributed" to avoid disclosing company proprietary data.

2/Included with Maryland.

3/Undistributed quantity for this use is included with undistributed "All other purposes."

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TABLE 4.--Industrial explosives and blasting agents sold for consumption in the United States, by State and class, 1987

(Thousand pounds)

State	Class					Total
	Fixed high explosives		Water gels, slurries, and emulsions	Blasting Agents		
	Permissibles	Other high explosives		Ammonium nitrate-fuel oil blasting agents	Unprocessed ammonium nitrate/	
Alabama-----	976	1,875	10,746	7,058	187,059	207,714
Alaska-----	--	5,901	1,203	970	--	8,074
Arizona-----	--	2,346	17,073	3,325	116,936	139,680
Arkansas-----	5	543	7,826	2,354	3,367	14,095
California-----	9	2,814	10,171	9,968	27,670	50,632
Colorado-----	--	2,220	11,089	11,987	74,105	99,401
Connecticut-----	--	3,714	3,378	4,905	1,704	13,701
Delaware-----	1	8	--	2	--	11
District of Columbia <sup>2</sup> /-----	--	--	--	--	--	--
Florida-----	--	2,147	34,985	2,447	1,030	40,609
Georgia-----	--	2,861	13,104	7,055	189,426	212,446
Hawaii-----	--	234	114	399	--	747
Idaho-----	--	1,054	521	356	28,270	30,201
Illinois-----	20	4,343	19,312	10,976	83,277	117,928
Indiana-----	11	2,961	34,139	42,157	71,878	151,146
Iowa-----	123	4,219	4,098	1,729	17,859	28,028
Kansas-----	4	1,633	1,929	10,468	1,178	15,212
Kentucky-----	19,204	8,850	58,809	204,344	550,426	841,633
Louisiana-----	--	589	19	1,086	--	1,694
Maine-----	--	1,912	464	1,154	--	3,530
Maryland-----	2	1,236	3,636	982	1,200	7,056
Massachusetts-----	--	6,228	5,458	8,729	--	20,415
Michigan-----	2	2,023	17,195	12,655	18,119	49,994
Minnesota-----	--	686	15,795	10,985	41,504	68,970
Mississippi-----	--	342	13	75	--	430
Missouri-----	1,563	9,043	11,123	18,773	74,500	115,002
Montana-----	51	1,663	4,144	1,514	105,774	113,146
Nebraska-----	--	252	--	390	2,635	3,277
Nevada-----	--	854	2,827	8,085	72,539	84,305
New Hampshire-----	--	2,690	419	1,651	--	4,760
New Jersey-----	--	2,836	2,494	3,211	130,433	138,974
New Mexico-----	--	1,451	12,472	1,065	110,023	125,011
New York-----	6	4,479	5,422	6,177	2,896	18,980
North Carolina-----	--	6,392	13,999	2,447	43,068	65,906
North Dakota-----	--	70	1	--	122	193
Ohio-----	93	5,022	15,025	44,863	222,056	287,059
Oklahoma-----	--	581	5,346	22,527	13,289	41,743
Oregon-----	--	1,988	697	2,852	6,131	11,668
Pennsylvania-----	968	9,454	30,994	38,192	289,583	369,191
Rhode Island-----	--	549	206	578	--	1,333
South Carolina-----	--	143	1,968	40	--	2,151
South Dakota-----	--	23	387	662	2,943	4,015
Tennessee-----	437	9,948	8,913	27,063	46,580	92,941
Texas-----	--	3,473	6,982	23,425	30,540	64,420
Utah-----	61	2,505	3,185	340	21,149	27,240
Vermont-----	--	770	391	722	--	1,883
Virginia-----	6,402	5,979	14,256	12,650	98,314	137,601
Washington-----	--	3,468	667	1,182	24,090	29,407
West Virginia-----	3,810	2,827	7,089	46,557	220,206	280,489
Wisconsin-----	--	1,995	1,215	37	7,719	10,966
Wyoming-----	105	4,053	60,059	8,746	187,159	260,122
Undistributed-----	--	--	--	--	83,127	83,127
Total-----	33,853	143,247	481,358	629,915	3,209,884	4,498,257

1/Some quantities of this class of explosives are included in "Undistributed" to avoid disclosing company proprietary data.  
 2/Included with Maryland.

TABLE 5.--Permissible explosives sold for consumption in the United States,  
by State and use, 1987

(Thousand pounds)

State	Use					Total
	Coal mining	Metal mining	Quarrying and nonmetal mining	Costruction work	All other purposes	
Alabama-----	894	--	61	21	--	976
Alaska-----	--	--	--	--	--	--
Arizona-----	--	--	--	--	--	--
Arkansas-----	5	--	--	--	--	5
California-----	9	--	--	--	--	9
Colorado-----	--	--	--	--	--	--
Conneticut-----	--	--	--	--	--	--
Delaware-----	--	--	--	1	--	1
District of Columbia1/-----	--	--	--	--	--	--
Florida-----	--	--	--	--	--	--
Georgia-----	--	--	--	--	--	--
Hawaii-----	--	--	--	--	--	--
Idaho-----	--	--	--	--	--	--
Illinois-----	20	--	--	--	--	20
Indiana-----	11	--	--	--	--	11
Iowa-----	116	--	7	--	--	123
Kansas-----	4	--	--	--	--	4
Kentucky-----	19,204	--	--	--	--	19,204
Louisiana-----	--	--	--	--	--	--
Maine-----	--	--	--	--	--	--
Maryland-----	--	--	2	--	--	2
Massachusetts-----	--	--	--	--	--	--
Michigan-----	--	--	--	2	--	2
Minnesota-----	--	--	--	--	--	--
Mississippi-----	--	--	--	--	--	--
Missouri-----	1,563	--	--	--	--	1,563
Montana-----	51	--	--	--	--	51
Nebraska-----	--	--	--	--	--	--
Nevada-----	--	--	--	--	--	--
New Hampshire-----	--	--	--	--	--	--
New Jersey-----	--	--	--	--	--	--
New Mexico-----	--	--	--	--	--	--
New York-----	--	--	--	6	--	6
North Carolina-----	--	--	--	--	--	--
North Dakota-----	--	--	--	--	--	--
Ohio-----	90	--	3	--	--	93
Oklahoma-----	--	--	--	--	--	--
Oregon-----	--	--	--	--	--	--
Pennsylvania-----	932	--	36	--	--	968
Rhode Island-----	--	--	--	--	--	--
South Carolina-----	--	--	--	--	--	--
South Dakota-----	--	--	--	--	--	--
Tennessee-----	194	--	80	163	--	437
Texas-----	--	--	--	--	--	--
Utah-----	13	--	48	--	--	61
Vermont-----	--	--	--	--	--	--
Virginia-----	6,402	--	--	--	--	6,402
Washington-----	--	--	--	--	--	--
West Virginia-----	3,778	--	11	21	--	3,810
Wisconsin-----	--	--	--	--	--	--
Wyoming-----	105	--	--	--	--	105
Total-----	33,391	--	248	214	--	33,853

1/Included with Maryland.



TABLE 6.--Other high explosives sold for consumption in the United States,  
by State and use, 1987

(Thousand pounds)

State	Use					Total
	Coal mining	Metal mining	Quarrying and nonmetal mining	Costruction work	All other purposes	
Alabama-----	373	136	413	896	57	1,875
Alaska-----	232	--	36	5,633	--	5,901
Arizona-----	267	1,653	323	73	30	2,346
Arkansas-----	15	31	271	221	5	543
California-----	94	144	720	1,804	52	2,814
Colorado-----	228	180	691	666	455	2,220
Conneticut-----	32	51	3,116	515	--	3,714
Delaware-----	--	--	--	8	--	8
District of Columbia1/-----	--	--	--	--	--	--
Florida-----	--	1	972	1,090	84	2,147
Georgia-----	81	--	2,508	272	--	2,861
Hawaii-----	--	--	--	20	214	234
Idaho-----	--	299	715	33	7	1,054
Illinois-----	1,235	100	2,276	719	13	4,343
Indiana-----	1,166	253	1,526	16	--	2,961
Iowa-----	107	--	2,361	1,746	5	4,219
Kansas-----	43	--	1,454	89	47	1,633
Kentucky-----	6,253	208	1,503	868	18	8,850
Louisiana-----	--	--	302	--	287	589
Maine-----	--	--	308	1,604	--	1,912
Maryland-----	55	21	802	358	--	1,236
Massachusetts-----	41	--	3,648	2,482	57	6,228
Michigan-----	609	511	427	208	268	2,023
Minnesota-----	--	208	324	154	--	686
Mississippi-----	--	--	13	43	286	342
Missouri-----	200	626	5,893	2,324	--	9,043
Montana-----	461	64	535	187	416	1,663
Nebraska-----	--	--	--	245	7	252
Nevada-----	204	403	83	111	53	854
New Hampshire-----	--	--	827	1,863	--	2,690
New Jersey-----	--	--	2,425	411	--	2,836
New Mexico-----	290	403	54	605	99	1,451
New York-----	34	110	2,534	1,801	--	4,479
North Carolina-----	170	136	4,188	1,898	--	6,392
North Dakota-----	47	--	--	--	23	70
Ohio-----	1,659	132	1,589	1,592	50	5,022
Oklahoma-----	56	7	245	95	178	581
Oregon-----	--	--	222	1,766	--	1,988
Pennsylvania-----	2,358	59	5,527	1,170	340	9,454
Rhode Island-----	--	--	193	356	--	549
South Carolina-----	--	--	114	29	--	143
South Dakota-----	--	--	--	23	--	23
Tennessee-----	583	1,243	3,161	4,956	5	9,948
Texas-----	72	54	1,603	843	901	3,473
Utah-----	570	99	1,733	84	19	2,505
Vermont-----	--	--	216	147	407	770
Virginia-----	1,953	147	3,118	761	--	5,979
Washington-----	120	1,114	1,624	607	3	3,468
West Virginia-----	1,626	42	777	378	4	2,827
Wisconsin-----	--	--	536	1,459	--	1,995
Wyoming-----	1,937	578	344	126	1,068	4,053
Total-----	23,171	9,013	62,250	43,355	5,458	143,247

1/Included with Maryland.

TABLE 7.--Packaged and bulk water gels, slurries, and emulsions sold for consumption in the United States, by State and use, 1987

(Thousand pounds)

State	Use					Total
	Coal mining	Metal mining	Quarrying and nonmetal mining	Costruction work	All other purposes	
Alabama-----	1,756	1	6,982	1,925	82	10,746
Alaska-----	365	--	11	827	--	1,203
Arizona-----	9	14,390	2,565	109	--	17,073
Arkansas-----	666	180	2,139	4,511	330	7,826
California-----	--	415	7,063	2,693	--	10,171
Colorado-----	8,195	258	463	2,098	75	11,089
Conneticut-----	16	125	2,835	402	--	3,378
Delaware-----	--	--	--	--	--	--
District of Columbia1/-----	--	--	--	--	--	--
Florida-----	--	49	26,985	7,429	522	34,985
Georgia-----	--	--	13,064	40	--	13,104
Hawaii-----	--	--	54	3	57	114
Idaho-----	81	403	32	5	--	521
Illinois-----	12,730	276	4,954	1,352	--	19,312
Indiana-----	29,017	376	4,706	40	--	34,139
Iowa-----	41	--	3,175	882	--	4,098
Kansas-----	183	--	1,703	43	--	1,929
Kentucky-----	45,804	8,661	2,714	1,630	--	58,809
Louisiana-----	--	--	16	1	2	19
Maine-----	--	--	133	331	--	464
Maryland-----	19	1	3,113	503	--	3,636
Massachusettes-----	--	90	3,880	855	633	5,458
Michigan-----	189	12,957	3,723	325	1	17,195
Minnesota-----	37	14,246	1,388	124	--	15,795
Mississippi-----	--	--	--	--	13	13
Missouri-----	4,469	426	4,323	1,905	--	11,123
Montana-----	250	2,690	1,076	128	--	4,144
Nebraska-----	--	--	--	--	--	--
Nevada-----	118	1,407	1,215	87	--	2,827
New Hampshire-----	--	--	87	332	--	419
New Jersey-----	--	--	2,102	348	44	2,494
New Mexico-----	9,611	25	2,185	648	3	12,472
New York-----	--	51	2,929	2,442	--	5,422
North Carolina-----	28	213	12,976	782	--	13,999
North Dakota-----	--	--	--	1	--	1
Ohio-----	2,579	640	2,860	8,932	14	15,025
Oklahoma-----	1,090	--	2,487	1,736	33	5,346
Oregon-----	--	--	28	668	1	697
Pennsylvania-----	10,151	283	14,575	1,745	4,240	30,994
Rhode Island-----	--	--	114	92	--	206
South Carolina-----	--	--	1,672	296	--	1,968
South Dakota-----	100	46	122	119	--	387
Tennessee-----	1,709	673	4,966	1,565	--	8,913
Texas-----	--	--	4,753	2,191	38	6,982
Utah-----	55	2,790	168	168	4	3,185
Vermont-----	--	--	182	21	188	391
Virginia-----	7,342	--	5,913	957	44	14,256
Washington-----	--	191	56	418	2	667
West Virginia-----	4,981	896	450	762	--	7,089
Wisconsin-----	--	81	296	838	--	1,215
Wyoming-----	54,146	285	3,179	2,449	--	60,059
Total-----	195,737	63,125	160,412	55,758	6,326	481,358

1/Included with Maryland.

TABLE 8.--Ammonium nitrate-fuel oil blasting agents sold for consumption  
in the United States, by State and use, 1987

(Thousand pounds)

State	Use					Total
	Coal mining	Metal mining	Quarrying and nonmetal mining	Costruction work	All other purposes	
Alabama-----	6,405	--	533	120	--	7,058
Alaska-----	--	--	30	940	--	970
Arizona-----	17	2,600	280	428	--	3,325
Arkansas-----	--	--	1,048	1,306	--	2,354
California-----	--	1,553	3,535	4,880	--	9,968
Colorado-----	11,937	--	--	50	--	11,987
Conneticut-----	2	7	3,620	1,276	--	4,905
Delaware-----	--	--	--	2	--	2
District of Columbia1/-----	--	--	--	--	--	--
Florida-----	--	--	1,353	990	104	2,447
Georgia-----	42	--	6,216	787	10	7,055
Hawaii-----	--	--	399	--	--	399
Idaho-----	96	115	--	145	--	356
Illinois-----	8,412	--	2,430	134	--	10,976
Indiana-----	36,604	5	5,513	35	--	42,157
Iowa-----	16	--	1,496	--	217	1,729
Kansas-----	609	--	9,138	721	--	10,468
Kentucky-----	185,524	--	7,911	10,878	31	204,344
Louisiana-----	--	--	990	96	--	1,086
Maine-----	--	--	192	962	--	1,154
Maryland-----	125	--	647	210	--	982
Massachusetts-----	--	--	6,067	2,562	100	8,729
Michigan-----	--	5,584	6,794	277	--	12,655
Minnesota-----	26	10,831	68	60	--	10,985
Mississippi-----	--	--	61	--	14	75
Missouri-----	165	--	15,520	3,088	--	18,773
Montana-----	1,267	--	247	--	--	1,514
Nebraska-----	--	--	--	390	--	390
Nevada-----	--	6,024	999	1,062	--	8,085
New Hampshire-----	--	--	470	1,181	--	1,651
New Jersey-----	--	--	2,859	352	--	3,211
New Mexico-----	428	--	--	637	--	1,065
New York-----	--	--	5,971	206	--	6,177
North Carolina-----	--	9	2,133	305	--	2,447
North Dakota-----	--	--	--	--	--	--
Ohio-----	33,103	--	9,412	1,099	1,249	44,863
Oklahoma-----	12,413	2,035	1,639	6,440	--	22,527
Oregon-----	--	--	238	2,614	--	2,852
Pennsylvania-----	26,323	--	10,440	1,105	324	38,192
Rhode Island-----	--	--	280	298	--	578
South Carolina-----	--	--	13	27	--	40
South Dakota-----	--	--	--	662	--	662
Tennessee-----	11,122	7	9,643	6,291	--	27,063
Texas-----	4,512	--	12,977	5,697	239	23,425
Utah-----	46	39	203	52	--	340
Vermont-----	--	--	129	176	417	722
Virginia-----	10,316	--	1,972	362	--	12,650
Washington-----	--	460	257	450	15	1,182
West Virginia-----	41,528	--	577	4,452	--	46,557
Wisconsin-----	--	--	4	33	--	37
Wyoming-----	8,690	--	33	22	1	8,746
Total-----	399,728	29,269	134,337	63,860	2,721	629,915

1/Included with Maryland.

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TABLE 9.--Unprocessed ammonium nitrate sold for consumption in the United States, by State and use, 1987

(Thousand pounds)

State	Use					Total
	Coal mining	Metal mining	Quarrying and nonmetal mining <sup>1/</sup>	Costruction work	All other <sup>1/</sup> purposes	
Alabama	180,935	--	6,124	--	--	187,059
Alaska	--	--	--	--	--	--
Arizona	41,272	75,310	--	--	354	116,936
Arkansas	--	--	2,929	438	--	3,367
California	17,887	258	4,482	5,043	--	27,670
Colorado	72,484	226	1,353	42	--	74,105
Conneticut	--	--	1,704	--	--	1,704
Delaware	--	--	--	--	--	--
District of Columbia <sup>2/</sup>	--	--	--	--	--	--
Florida	--	--	118	912	--	1,030
Georgia	177,893	--	11,533	--	--	189,426
Hawaii	--	--	--	--	--	--
Idaho	10,988	16,598	684	--	--	28,270
Illinois	69,317	--	10,002	2,446	1,512	83,277
Indiana	68,346	--	2,718	814	--	71,878
Iowa	7,558	--	4,913	386	5,002	17,859
Kansas	1,135	--	43	--	--	1,178
Kentucky	485,130	--	9,787	45,159	10,350	550,426
Louisiana	--	--	--	--	--	--
Maine	--	--	--	--	--	--
Maryland	1,200	--	--	--	--	1,200
Massachusetts	--	--	--	--	--	--
Michigan	1,558	14,780	86	138	1,557	18,119
Minnesota	3,598	30,277	2,140	1,268	4,221	41,504
Mississippi	--	--	--	--	--	--
Missouri	42,642	--	8,172	23,428	258	74,500
Montana	78,904	26,870	--	--	--	105,774
Nebraska	--	--	--	2,435	200	2,635
Nevada	43,549	28,800	39	150	1	72,539
New Hampshire	--	--	--	--	--	--
New Jersey	130,433	--	--	--	--	130,433
New Mexico	58,533	26,512	--	16,793	8,185	110,023
New York	2,438	8	402	48	--	2,896
North Carolina	19,107	37	23,868	56	--	43,068
North Dakota	122	--	--	--	--	122
Ohio	192,106	--	2,728	22,138	5,084	222,056
Oklahoma	--	--	13,289	--	--	13,289
Oregon	4,831	--	--	1,300	--	6,131
Pennsylvania	283,216	--	856	1,112	4,399	289,583
Rhode Island	--	--	--	--	--	--
South Carolina	--	--	--	--	--	--
South Dakota	1,800	--	--	997	146	2,943
Tennessee	40,829	--	4,900	851	--	46,580
Texas	19,020	--	2,599	8,717	204	30,540
Utah	11,479	9,585	85	--	--	21,149
Vermont	--	--	--	--	--	--
Virginia	95,585	--	1,987	742	--	98,314
Washington	9,283	4,884	4,373	5,550	--	24,090
West Virginia	211,220	--	846	4,610	3,530	220,206
Wisconsin	1,909	--	2,904	152	2,754	7,719
Wyoming	182,428	4,731	--	--	--	187,159
Undistributed	--	--	3/	--	83,127	83,127
Total	2,568,735	238,876	125,664	145,725	130,884	3,209,884

<sup>1/</sup>Some quantities of this use are included in "Undistributed" to avoid disclosing company proprietary data.  
<sup>2/</sup>Included with Maryland.  
<sup>3/</sup>Undistributed quantity for this use is included with undistributed "All other purposes."