

COMMONWEALTH BUREAU OF CENSUS AND STATISTICS, CANBERRA,
AUSTRALIA.

MANUFACTURING INDUSTRIES.
1953-54.

**No. 3. CHEMICALS, DRUGS
AND MEDICINES.**

PREPARED UNDER INSTRUCTIONS FROM
THE RIGHT HONORABLE THE TREASURER,

BY

S. R. CARVER,
ACTING COMMONWEALTH STATISTICIAN.

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P R E F A C E

1. GENERAL: The Bulletins in the series for 1953-54 are listed on the back of the cover of this Bulletin and incorporate the same range of industries as the 1952-53 series.

Where a number of industries are combined in one Bulletin the introductory paragraph on Page 3 specifies the industries so included.

2. CLASSIFICATION OF FACTORIES: For purposes of industry classification, factories in Australia are classified according to the nature of their product. Where two or more distinct types of industrial activity are carried on in one establishment, a separate return is obtained, wherever practicable, for each activity in order to allow classification on this basis. In cases where this is not practicable, factories are classified according to predominant activity and these cases are encountered most frequently in the Metal Trades, (e.g. General Engineering firms also producing Agricultural Implements or Stoves, etc.), and to a lesser degree in factories concerned with Skins, Leather, Clothing and Wood products.

Each of the summaries in the "Manufacturing Industries" series relates as far as possible to the operations of factories classified to the industry specified. Sometimes articles normally produced in the industry covered by a particular Bulletin are also produced, as subsidiary production, in other industries, and, wherever possible, quantity tables have been extended to show details of production separately for the industry under review and the total in all industries.

3. BASIS OF THE STATISTICS: The scope of the factory statistics is fully explained in the annual Secondary Industries Bulletin.

Briefly, a "factory" is taken to be a manufacturing establishment in which four or more persons are employed or in which power other than hand is used.

All persons employed in the manufacturing activities of the factory are counted as factory employees. The figures relating to employment, therefore, exclude all those engaged in selling and distribution, such as salesmen, travellers, collectors, carters engaged solely on outward delivery of manufactured goods, and retailing storemen. The figures do include, however, proprietors who work in their own factories as well as "out-workers".

The value of output is the selling value at the factory of goods made or processed during the year, including by-products. In addition it includes the value of other work done, such as repair work, assembling and making-up for customers.

The value of production is the value added to raw materials by the process of manufacture. It is calculated by deducting from the value of factory output the value (at the factory) of the materials used, containers and packing, power, fuel and light used, tools replaced and materials used in repairs to plant (but not depreciation charges). The value of production is the source from which such items as wages, interest, depreciation, profits, taxation, advertising and other sundry charges are met. As full details of costs of production are not collected, the amount of profit resulting from factory operations cannot be ascertained from the figures contained herein.

S. R. CARVER
ACTING COMMONWEALTH STATISTICIAN

MANUFACTURING INDUSTRIES : AUSTRALIA, 1953-54.CHEMICALS, DRUGS AND MEDICINES

1. GENERAL: In 1945-46 the classification of factories in use in Australia was modified to provide for the separate tabulation of statistics relating to factories engaged in the production of Industrial and Heavy Chemicals and Acids and those producing Pharmaceutical and Toilet Preparations. These two industries had previously been combined.

It should be noted that the particulars in this Summary relating to Industrial and Heavy Chemicals and Acids include details for the Explosives industry in all tables except those covering details of materials used and articles produced. This action is necessary in order to avoid the publication of information which must be treated as confidential, owing to the relatively few establishments engaged in the Explosives industry. Details relating to small establishments not classified for statistical purposes as factories are not included in the figures shown herein.

2. SUMMARY OF STATISTICS: In the following table, a summary of the principal statistics of factories engaged in the production of Industrial and Heavy Chemicals and Acids (including Explosives), and Pharmaceutical and Toilet Preparations is given for the years 1938-39, 1945-46 and 1951-52 to 1953-54. Separate details for the two industries are not available prior to 1945-46.

TABLE 1 : CHEMICALS, DRUGS AND MEDICINES (INCLUDING EXPLOSIVES) :

AUSTRALIA

Year	Factories (1)	Persons Employed (a)(2)	Salaries & Wages Paid (b)(3)	Power Fuel and Light, etc. Used (c)(4)	Value of Materials etc., Used (d)(5)	Value of Pro- duction (e)(6)	Value of Output (f)(7)
	Number	Number	£'000	£'000	£'000	£'000	£'000
(i) Total Chemicals, Drugs and Medicines (including Explosives)							
1938-39	250	8,100	1,592	171	4,195	4,640	9,006
1945-46	380	15,742	4,728	675	11,410	11,417	23,502
1951-52	427	17,653	11,972	2,260	30,974	27,494	60,728
1952-53	435	16,616	12,395	2,407	29,322	27,067	58,796
1953-54	442	17,777	13,805	2,995	37,175	33,612	73,782
(ii) Industrial and Heavy Chemicals and Acids (including Explosives)							
1945-46	165	10,226	3,450	618	6,007	6,627	13,252
1951-52	219	11,504	8,539	2,110	21,097	17,180	40,387
1952-53	229	11,253	8,927	2,210	19,538	16,879	38,627
1953-54	234	11,765	9,907	2,757	25,158	20,643	48,558
(iii) Pharmaceutical and Toilet Preparations							
1945-46	215	5,514	1,278	57	5,403	4,790	10,250
1951-52	208	6,149	3,433	150	9,877	10,314	20,341
1952-53	206	5,363	3,468	197	9,784	10,188	20,169
1953-54	208	6,012	3,898	238	12,017	12,969	25,224

(a) Average over whole year; includes Working Proprietors. (b) Excludes amounts drawn by Working Proprietors. (c) Includes Water and Lubricating Oil. (d) Includes also containers, packing, etc., replacements of tools and repairs to plant. (e) Value of Production equals column (7) less total of columns (4) and (5). (f) Value of goods produced.

In table 2, particulars for Industrial and Heavy Chemicals and Acids (including Explosives) are given for each State during the year 1953-54 whilst similar details appear in Table 3 in respect of Pharmaceutical and Toilet Preparations.

TABLE 2 : INDUSTRIAL & HEAVY CHEMICALS & ACIDS (INCL. EXPLOSIVES) : STATES, 1953-54

Particulars	N.S.W.	VIC.	Q'LD.	S.A.	W.A.	TAS.	AUSTRALIA
Number of Factories	124	76	15	9	9	1	234
Number Employed -							
Males	4,204	4,321	195	679	(a)	(a)	9,691
Females	538	1,406	63	51	(a)	(a)	2,074
Total	4,742	5,727	258	730	(a)	(a)	11,765
Salaries & Wages Paid	4,196,444	4,665,155	192,893	624,965	(a)	(a)	9,906,692
Value of -							
Power, Fuel and Light, etc. Used	1,435,389	653,136	46,515	544,230	(a)	(a)	2,756,787
Materials, etc. Used	13,981,105	9,560,899	266,344	1,006,412	(a)	(a)	25,157,890
Production	9,715,615	8,207,762	436,121	1,849,361	(a)	(a)	20,643,716
Output	25,132,109	18,421,797	748,980	3,400,003	(a)	(a)	48,558,393
Land and Buildings (b)	6,906,646	5,422,095	103,782	705,645	(a)	(a)	13,389,044
Plant and Machinery (b)	13,770,583	7,545,472	165,874	1,630,483	(a)	(a)	23,572,816
	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
H.P. of Engines ordinarily in use	38,332	43,428	1,584	4,539	(a)	(a)	90,807

(a) Not available for publication; included with total for Australia. (b) Depreciated or book values at end of year.

See also notes to Table 1 on previous page.

TABLE 3 : PHARMACEUTICAL AND TOILET PREPARATIONS : STATES, 1953-54

Particulars	N.S.W.	VIC.	Q'LD.	S.A.	W.A.	TAS.	AUSTRALIA
Number of Factories	121	62	5	13	4	3	208
Number Employed -							
Males	1,068	1,208	(a)	248	51	(a)	2,626
Females	1,938	1,095	(a)	232	51	(a)	3,386
Total	3,006	2,303	(a)	480	102	(a)	6,012
Salaries & Wages Paid	1,865,322	1,629,862	(a)	290,633	56,176	(a)	3,898,486
Value of -							
Power, Fuel and Light, etc. Used	74,173	132,321	(a)	26,642	3,319	(a)	237,817
Materials, etc. used	6,105,137	4,509,185	(a)	1,085,653	124,676	(a)	12,017,485
Production	8,433,756	3,754,452	(a)	462,928	174,398	(a)	12,968,772
Output	14,613,066	8,395,958	(a)	1,575,223	302,393	(a)	25,224,074
Land and Buildings (b)	1,658,301	2,754,349	(a)	175,836	115,281	(a)	4,755,228
Plant and Machinery (b)	630,444	1,045,369	(a)	78,939	28,947	(a)	1,792,512
	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.	H.P.
H.P. of Engines ordinarily in use	3,513	7,680	(a)	1,295	187	(a)	12,777

(a) Not available for publication; included with total for Australia. (b) Depreciated or book values at end of year.

See also notes to Table 1 on previous page.

3. AVERAGE SALARIES, OUTPUT AND PRODUCTION: Particulars of the average salary and wage paid, together with the average values of output and production per person engaged and the ratio of salaries and wages paid to the value of production, are shown in the following table for the combined industrial group - Chemicals, Drugs and Medicines (including Explosives) for the years 1938-39, 1945-46 and 1951-52 to 1953-54.

TABLE 4 : CHEMICALS, DRUGS AND MEDICINES (INCL. EXPLOSIVES) : AVERAGE SALARIES AND WAGES PAID, OUTPUT, ETC. PER EMPLOYEE : AUSTRALIA

Year	Salaries and Wages per Employee (a)	Value of Output Per Person Engaged (b)	Value of Production Per Person Engaged (b)	Ratio of Salaries and Wages to Value of Production
	£.	£.	£.	
1938-39	199	1,112	573	34.31
1945-46	303	1,493	725	41.42
1951-52	683	3,440	1,557	43.54
1952-53	752	3,539	1,629	45.80
1953-54	783	4,150	1,891	41.07

(a) Excludes Working Proprietors and amounts drawn by them.

(b) Includes Working Proprietors.

4. MATERIALS USED AND ARTICLES PRODUCED: The two tables following show particulars of the quantity and value of the principal materials used and articles produced in each of the industries, Industrial and Heavy Chemicals and Acids, and Pharmaceutical and Toilet Preparations during the year 1953-54. A number of the articles produced in these industries are, however, also produced in other establishments, and Table 6 accordingly shows separate particulars of these articles produced in (i) the two classes of industries mentioned and (ii) all factories.

TABLE 5 : PRINCIPAL MATERIALS USED IN THE INDUSTRIAL GROUP -
CHEMICALS, DRUGS AND MEDICINES : AUSTRALIA : 1953-54

Materials Used	Unit of Q'ty.	Industrial & Heavy Chemicals & Acids		Pharmaceutical and Toilet Preparations	
		Quantity	Value (£)	Quantity	Value (£)
Alkali -					
Soda Ash - for making Soap	cwt.	690	1,348	332	1,211
" " Soda Crystals	"	(a)	(a)	(a)	(a)
" other purposes	"	148,359	256,659	3,017	7,066
Other - for making Soap ..	"	1,891	6,486	590	2,630
" other purposes ..	"	109,602	285,572	30,222	55,990
Flour ..	ton (2000lb.)	1,435	40,362	217	6,264
Glycerine,					
Crude - Own Manufacture	cwt.	(a)	(b)	-	-
Purchased	"	(a)	(a)	247	4,349
Refined - Own Manufacture	"	-	-	-	-
Purchased	"	16,715	281,084	6,006	100,848
Oils - Essential - Citrus ..	lb.	45,238	81,540	18,233	29,904
Eucalyptus ..	"	332,885	60,217	362,180	100,489
Ti-Tree ..	"	(a)	(a)	588	395
Fixed-Coconut, Refined	cwt.	1,071	9,948	545	5,237
Unrefined	"	985	7,614	189	1,736
Linseed ..	gallon	175,990	135,042	2,001	2,038
Olive ..	"	(a)	(a)	35,435	54,891
Peanut ..	"	816	977	9,282	10,418
Animal ..	"	184,679	78,541	53,640	85,891
Mineral ..	"	753,751	112,763	325,031	129,573
Oleins ..	cwt.	22,773	171,078	3,340	25,350
Salt (Common) ..	"	3,716,607	380,362	1,186	1,102
Stearine ..	"	15,520	106,035	1,462	11,987
Sugar Cane - Refined ..	ton	97	7,109	1,606	116,836
Sulphur ..	"	30,699	685,974	48	2,019
Sulphuric Acid (in terms of 100%)	cwt.	201,672	176,794	6,284	6,471
Tallow ..	"	45,835	138,301	16	69
Waxes ..	"	3,935	55,973	1,414	34,245
Wool Grease ..	lb.	248,013	18,919	49,071	5,127

(a) Not available for publication.

(b) Quantity only collected.

TABLE 6 - PRINCIPAL ARTICLES PRODUCED IN THE INDUSTRIAL GROUP -
CHEMICALS, DRUGS AND MEDICINES : AUSTRALIA, 1953-54

(1) Products of Industrial and Heavy Chemicals and Acids Industry

Articles Produced	Unit of Q'ty.	Industrial and Heavy Chemicals and Acids Factories		All Factories (incl. Industrial & Heavy Chemicals & Acids)	
		Quantity	Value (£)	Quantity	Value (£)
Acid - Acetic - for sale, etc. for use in own works	owt.	30,486	172,973	30,486	172,973
Hydrochloric - for sale, etc. for use in own works	"	52,154	(b)	52,154	(b)
Nitric - for sale, etc. for use in own works	"	(a) 33,886	(a) 187,679	33,886	187,679
Sulphuric - for sale, etc. for use in own works	ton	(a) 6,012	(b)	6,012	(b)
	"	(a) 6,632	(a) 482,194	6,632	482,194
	"	(a) 4,869	(b)	4,869	(b)
	"	77,775	1,022,650	228,694	2,510,369
	"	(a) 503,203	(b)	503,203	(b)
Ammonia - Anhydrous	"	1,607	242,405	1,607	242,405
Aqua	"	2,437	217,222	2,437	217,222
Carbon Dioxide - Dry Ice	ton	5,688	278,083	5,688	278,083
Gas	lb.	9,988,487	261,227	15,825,678	416,714
Liquid	"	(c)	(c)	(c)	(c)
Sodium Hydroxide	ton	19,910	1,319,124	19,910	1,319,124
Hypochlorite	"	3,171	114,450	3,171	114,450
Silicate	"	15,181	346,400	15,181	346,400
Sulphate - Glaubers	"	(a) 2,494	(a) 70,390	2,494	70,390
Salt Cake	"	7,823	99,660	7,823	99,660
Essences, Flavouring - for Industrial use for Domestic use	gal.	108,646	923,652	245,812	1,315,529
	"	-	-	96,359	431,960
Plastic and Synthetic Resins:- For Moulding, Extrusion, etc. For other purposes (Varnishes, Adhesives)	owt.	(a) 164,700	(a) 2,891,682	164,700	2,891,682
	"	199,322	2,309,344	296,798	3,221,916
Disinfectants (Incl. Phenyl and Antiseptics)	-	(a)	283,725	(a)	1,075,563
Soap Substitutes and Compound Detergents:- - of Inorganic origin of Animal, Mineral or vegetable oil origin	owt.	9,788	80,114	27,664	205,695
	"	36,476	311,734	50,929	408,304
Insecticides and Vermin Sprays Dusts, etc:- Agricultural and Orchard Pastoral (incl. Sheep and Cattle Dips) - Other (incl. Household) Concentrates (for sale to manufacturers)	-	(d)	1,416,671	(d)	1,853,542
	-	(d)	775,702	(d)	1,027,534
	-	(d)	520,291	(d)	681,296
	-	(d)	207,799	(d)	215,877
Weed Killers	-	(d)	1,055,308	(d)	1,094,412
Zinc Chloride	ton	516	36,897	516	36,897

(a) Includes particulars of articles produced in other works, details of which are not available for separate publication. (b) Quantity only collected. (c) Not available for publication. (d) Value only available.

TABLE 6 - PRINCIPAL ARTICLES PRODUCED IN THE INDUSTRIAL GROUP -
CHEMICALS, DRUGS AND MEDICINES : AUSTRALIA, 1953-54 : (Continued).

(11) Products of Pharmaceutical and Toilet Preparations Industry

Articles Produced	Unit of Qty.	Pharmaceutical and Toilet Preparations Factories		All Factories (incl. Pharmaceutical and Toilet Preparations)	
		Quantity	Value (£)	Quantity	Value (£)
<u>Pharmaceutical Products -</u>					
Proprietary Medicines: all types	-	(a)	13,688,984	(a)	13,747,177
<u>Toilet Preparations and Cosmetics</u>					
Cosmetic Creams and Lotions -					
Face Creams	cwt.	(b) 5,412	(b) 395,551	5,412	395,551
Hand Creams and Lotions	"	(b) 4,800	(b) 199,543	4,800	199,543
Other Skin Creams and Lotions	"	(b) 9,102	(b) 619,680	9,102	619,680
Dentifrices	-	(a)	(b) 2,022,087	(a)	2,022,087
Hair Preparations - Fixatives	-	(a)	(b) 970,095	(a)	970,095
Tonics	-	(a)	(b) 61,709	(a)	61,709
Face Powder	cwt.	(b) 3,396	(b) 342,556	3,396	342,556
Lipstick	-	(a)	(b) 520,650	(a)	520,650
Rouge	-	(a)	(b) 103,211	(a)	103,211
Soap (c) - Toilet and Hand	cwt.	(b) 300,049	(b) 2,962,036	300,049	2,962,036
Soft	"	1,366	7,179	18,920	71,462
Liquid	"	12,278	57,480	134,570	491,201
Shaving (including sticks and Cream)	"	(b) 7,076	(b) 314,840	7,076	314,840
Shampoo - Liquid	"	4,360	121,604	8,841	347,486
Powder	"	(b) 177	(b) 13,588	177	13,588
Talcum Powder	"	(b) 30,183	(b) 932,665	30,183	932,665
Toilet Lanoline	lb.	95,046	28,717	95,046	28,717
<u>Other Products</u>					
Adhesives (including mucilage and Paste) - Powdered	cwt.	(b) 27,507	(b) 198,680	27,507	198,680
Semi-Liquid	"	(b) 56,455	(b) 505,230	56,455	505,230
Liquid	"	(b) 121,431	(b) 697,324	121,431	697,324
Essences, Flavouring -					
For Industrial Use	gal.	(b) 245,812	(b) 1,315,529	245,812	1,315,529
For Domestic Use	"	32,278	148,995	96,359	431,960

(a) Value only available. (b) Includes particulars of articles produced in other works, details of which are not available for separate publication.

(c) Manufacturing Industries Bulletin No. 6 - Soap and Candles gives full details of production of Soap.

The following table shows particulars of some of the principal articles produced by the combined group - Chemicals, Drugs and Medicines, in respect of which comparative quantity details are available, for the years 1938-39, 1945-46 and 1951-52 to 1953-54. The particulars relate to total Australian production in all factories of the articles specified.

TABLE 7 : SELECTED ARTICLES PRODUCED IN THE CHEMICALS, DRUGS AND MEDICINES GROUP - AUSTRALIA

Articles Produced	Unit	1938-39	1945-46	1951-52	1952-53	1953-54
Acid - Acetic	ton	675	440	2,165	2,149	4,132
Hydrochloric	"	2,737	1,862	1,850	1,787	1,995
Nitric	"	563	3,097	9,344	8,693	11,501
Sulphuric	"	489,493	404,540	650,239	627,283	731,897
Ammonia Anhydrous	"	(a)	1,166	1,602	1,691	1,607
Aqua	"	(a)	1,310	2,092	1,997	2,437
Carbon Dioxide - Dry Ice	"	4,724	3,547	5,470	4,638	5,688
Gas	"		4,257	5,941	5,916	7,065
Sodium Hydroxide	"	2,878	11,359	20,693	17,745	19,910
Sulphate	"	1,607	6,085	9,530	6,933	10,317
Hypochlorite	"	(a)	414	2,472	2,633	3,171
Zinc Chloride	"	(a)	278	594	458	516
Face Powder	cwt.	(a)	1,834	2,848	2,898	3,396
Talc Powder	"	(a)	36,043	20,944	24,637	30,183
Toilet Lanoline	lb.	37,940	(b)	77,152	102,168	95,046
Adhesives - all types incl. Mucilage and Paste	cwt.	(a)	62,567	191,203	170,069	205,393

(a) Details not collected. (b) Not available for publication.

5. **EMPLOYMENT:** The numbers of persons employed shown in tables 1, 2, 3, 9 and 10 have been adjusted to represent the average employment over the whole year in those cases where short time was worked. In the following table the factories in the industrial group - Chemicals, Drugs and Medicines (including Explosives) - have been classified for the years 1938-39, 1945-46 and 1951-52 to 1953-54 according to the average number employed during the actual period worked.

TABLE 8 : CHEMICAL, DRUG AND MEDICINE (INCL. EXPLOSIVE) FACTORIES CLASSIFIED ACCORDING TO PERSONS EMPLOYED : AUSTRALIA

Number of Persons Employed in each Factory	1938-39		1945-46		1951-52		1952-53		1953-54	
	No. of Fac-tories	No. Em-ployed	No. of Fac-tories	No. Em-ployed	No. of Fac-tories	No. Em-ployed	No. of Fac-tories	No. Em-ployed	No. of Fac-tories	No. Em-ployed
Under 4	45	98	56	128	92	183	96	181	102	195
4	19	76	20	80	30	120	41	164	32	128
5 to 10	66	457	100	734	114	800	114	797	115	823
11 to 20	52	800	79	1,184	59	867	59	915	58	916
21 to 50	37	1,212	58	1,821	55	1,763	64	2,228	64	2,136
51 to 100	18	1,223	34	2,567	40	2,582	28	1,900	39	2,792
101 to 200	13	4,250	33	10,407	21	3,053	21	2,992	18	2,718
201 to 300					6	1,328	12	7,477	14	8,141
301 and over					10	6,980				
Total:	250	8,116	380	16,921	427	17,676	435	16,654	442	17,849
Average Number Employed per Factory	32		45		41		38		40	

Further details of employment in each of the industries, Industrial and Heavy Chemicals and Acids (including Explosives) and Pharmaceutical and Toilet Preparations, are furnished in the next three tables. In Table 9 the numbers of males and females employed are shown according to the nature of their employment in each of the industries, Industrial and Heavy Chemicals and Acids (including Explosives) and Pharmaceutical and Toilet Preparations for the year 1953-54.

TABLE 9 : CHEMICAL, DRUG AND MEDICINE (INCL. EXPLOSIVE) FACTORIES : MALES AND FEMALES EMPLOYED ACCORDING TO OCCUPATIONAL STATUS : AUSTRALIA 1953-54

Occupational Status	Industrial and Heavy Chemicals and Acids (incl. Explosives)		Pharmaceutical and Toilet Preparations		Total		
	Males	Females	Males	Females	Males	Females	Persons
Working Proprietors	53	16	61	18	114	34	148
Managerial and Clerical Staff including Salaried Managers and Working Directors	1,125	608	478	432	1,603	1,040	2,643
Chemists, Draftsmen and other Laboratory and Research Staff	747	58	214	45	961	103	1,064
Foremen and Overseers	580	10	186	82	766	92	858
Workers in Factory (Skilled and Unskilled)	7,096	1,380	1,680	2,808	8,776	4,188	12,964
Carters (excluding Delivery only), Messengers and Persons Working Regularly at Home	90	2	7	1	97	3	100
TOTAL:	9,691	2,074	2,626	3,386	12,317	5,460	17,777

In Table 10 the numbers of males and females employed in the combined group Chemicals, Drugs and Medicines (including Explosives) - are shown for the years 1938-39, 1952-53 and 1953-54, according to the nature of their employment, but because of the change in classification of occupational status adopted in 1945-46, group comparison between 1938-39 and the later years shown is not possible.

TABLE 10 : CHEMICAL, DRUG AND MEDICINE (INCL. EXPLOSIVE) FACTORIES - MALES AND FEMALES EMPLOYED - CLASSIFIED ACCORDING TO OCCUPATIONAL STATUS : AUSTRALIA

Occupational Status	Males			Females		
	1938-39	1952-53	1953-54	1938-39	1952-53	1953-54
Working Proprietors	87	109	114	8	28	34
Managerial and Clerical Staff, including Salaried Managers and Working Directors	)	1,525	1,603	)	1,014	1,040
Chemists, Draftsmen and other Laboratory and Research Staff	4,906	876	961	3,000	98	103
Foremen and Overseers	)	706	766	)	91	92
Workers in Factory (Skilled and Unskilled)	)	8,371	8,776	)	3,704	4,188
Other (Carters and Messengers, etc.)	95	91	97	4	3	3
TOTAL:	5,088	11,678	12,317	3,012	4,938	5,460

In the following table the numbers of persons employed in the Industrial Group - Chemicals, Drugs and Medicines (including Explosives) - in June in the years 1939, 1946 and 1952 to 1954 are shown according to age and sex distribution.

TABLE II : CHEMICAL, DRUG AND MEDICINE (INCL. EXPLOSIVES) FACTORIES - DISTRIBUTION OF EMPLOYEES ACCORDING TO AGE AND SEX : AUSTRALIA
(Excluding Working Proprietors)

June	Under 16 Years	16 years	17 years	18 years	19 years	20 years	Total 16 to 20 years	21 years and over	Total all ages
MALES									
1939(a)	149	(b)	(b)	(b)	(b)	(b)	950	4,750	5,849
1946(a)	61	91	143	191	153	166	744	9,084	9,889
1952(c)	58	66	98	112	108	107	491	11,432	11,981
1953(c)	31	74	93	119	115	115	516	11,009	11,556
1954(c)	57	93	120	108	113	119	553	12,287	12,897
FEMALES									
1939(a)	206	(b)	(b)	(b)	(b)	(b)	1,154	1,727	3,087
1946(a)	116	154	188	220	208	177	947	3,700	4,763
1952(c)	85	121	119	152	172	150	714	4,302	5,101
1953(c)	92	129	169	167	163	172	800	4,056	4,948
1954(c)	118	126	174	216	166	146	828	4,763	5,709

(a) Pay day nearest 15th June. (b) Details not collected. (c) Last pay day in June.

6. **POWER EQUIPMENT:** Statistics of the power equipment of the factories included in the industries - Industrial and Heavy Chemicals and Acids (including Explosives) and Pharmaceutical and Toilet Preparations - are given in the next table for the year 1953-54. The details include the rated horse-power of engines ordinarily in use together with those in reserve or idle.

TABLE 12 : CHEMICAL, DRUG AND MEDICINE (INCL. EXPLOSIVE) FACTORIES - TYPES AND RATED HORSE-POWER OF ENGINES : AUSTRALIA, 1953-54.

Class of Engine	Rated Horse-Power of Engines					
	Ordinarily in Use			In Reserve or Idle		
	Industrial and Heavy Chemicals and Acids (Including Explosives)	Pharmaceutical & Toilet Preparations	Total	Industrial and Heavy Chemicals and Acids (Including Explosives)	Pharmaceutical & Toilet Preparations	Total
Steam - Reciprocating	3,586	19	3,605	2,291	-	2,291
Turbine	3,358	3	3,361	1,677	-	1,677
Internal Combustion - Gas	-	-	-	-	3	3
Petrol or Other Light Oils	1,387	489	1,876	1,607	476	2,083
Heavy Oils	664	-	664	1,921	179	2,100
Water	50	-	50	-	-	-
Total, Prime Movers:	9,045	511	9,556	7,496	658	8,154
Motors driven by electricity - Purchased	81,762	12,266	94,028	9,659	2,281	11,940
Own Generation	(a) 5,064	(a) 277	(a) 5,341	2,567	137	2,704
Total, Electricity:	86,826	12,543	99,369	12,226	2,418	14,644
TOTAL POWER EMPLOYED:	90,807	12,777	103,584	19,722	3,076	22,798

(a) These motors are driven by electricity generated by prime movers and to avoid duplication are excluded from statistics of total power employed.

7. POWER, FUEL AND LIGHT, ETC., USED: Details of the quantities and values of the various items of power, fuel and light used in the industries - Industrial and Heavy Chemicals and Acids (including Explosives) and Pharmaceutical and Toilet Preparations - are shown in the following table for the year 1953-54.

TABLE 13 : CHEMICAL, DRUG AND MEDICINE (INCL. EXPLOSIVE) FACTORIES :
POWER, FUEL AND LIGHT, ETC., USED : AUSTRALIA, 1953-54

Particulars	Unit of Qty.	Quantity			Value (£)		
		Industrial and Heavy Chemicals and Acids (Including Explosives)	Pharmaceutical & Toilet Preparations	Total	Industrial and Heavy Chemicals and Acids (Including Explosives)	Pharmaceutical & Toilet Preparations	Total
Power, Fuel and Light -							
Coal - Black	ton	147,533	4,425	151,958	694,065	22,327	716,392
Brown	"	100,243	1,939	102,182	187,258	4,864	192,122
Brown Coal							
Briquettes	"	481	-	481	2,573	-	2,573
Coke	"	18,262	1,183	19,445	147,178	8,125	155,303
Wood	"	56,652	1,172	57,824	26,643	1,372	28,015
Fuel Oil	1000 gal.	6,098	645	6,743	281,632	45,161	326,793
Tar (Fuel)	"	1,290	28	1,318	63,154	1,574	64,728
Electricity	-	(a)	(a)	(a)	1,063,502	114,239	1,177,741
Gas	-	(a)	(a)	(a)	47,133	12,818	59,951
Other (Charcoal, etc.)	-	(a)	(a)	(a)	62,319	589	62,908
Water & Lubricating Oil used	-	(a)	(a)	(a)	181,330	26,748	208,078
TOTAL:		(a)	(a)	(a)	2,756,787	237,817	2,994,604

(a) Value only available.

8. VALUE OF LAND AND BUILDINGS, PLANT AND MACHINERY: Particulars of the book values of premises occupied and plant installed for factory purposes as at 30th June for the years 1938-39, 1945-46 and 1951-52 to 1953-54 are shown in the next table for both classes of industry, viz: Industrial and Heavy Chemicals and Acids (including Explosives) and Pharmaceutical and Toilet Preparations. Details of the values of additions and replacements made and depreciation allowed during the same period are also shown. It should be noted that the amounts shown are those recorded by factories which were operating during each year and that changes in their numbers, as well as other factors, affect comparison from year to year.

TABLE 14 : CHEMICAL, DRUG AND MEDICINE (INCL. EXPLOSIVE) FACTORIES
VALUE OF LAND AND BUILDINGS, PLANT AND MACHINERY, ETC.

AUSTRALIA
(£)

Year	Book Values as at 30th June (a)		Additions & Replacements made during the year		Depreciation Allowed during year	
	Land and Buildings	Plant and Machinery	Land and Buildings	Plant and Machinery	Land and Buildings	Plant and Machinery
1938-39	2,884,121	2,088,131	325,592	389,872	46,097	201,113
1945-46	13,231,228	11,562,976	409,187	775,934	181,322	836,672
1951-52	12,160,346	13,792,934	1,371,222	3,043,126	131,265	1,200,304
1952-53	15,853,590	21,181,577	3,791,465	8,523,425	147,436	1,273,765
1953-54	18,144,272	25,365,328	2,480,661	6,300,280	254,726	1,846,151

(a) Includes estimated value of rented premises and machinery.

9. EXTERNAL TRADE: The next two tables furnish particulars of the values of imports and exports of items included in the combined group "Chemicals, Drugs and Medicines".

TABLE 15 : VALUE OF IMPORTS OF CHEMICALS, DRUGS, MEDICINES, ETC. : AUSTRALIA
(£A. f.o.b. port of shipment)

Item	1938-39	1945-46	1951-52	1952-53	1953-54
Acids	107,033	185,290	2,270,273	427,562	1,047,147
Drugs and Medicinal Preparations	656,693	1,156,168	5,429,932	3,358,397	5,355,120
Sodium Salts	653,857	446,761	2,330,505	654,702	753,432
Cream of Tartar and Substitutes	19,696	486	769	26	270
Argol	230,922	76,288	305,691	74,942	78,316
Potassium Salts	(a) 403,044	115,837	383,916	92,071	118,319
Dyes	415,412	576,110	1,733,206	679,749	1,841,602
Perfumery and Toilet Preparations	229,116	121,436	670,619	174,923	441,885
Essential Oils (Non-Spirituous)	138,248	278,166	742,752	354,437	425,456
All Other Chemicals and Drugs (b)	2,063,082	1,577,145	11,360,531	4,018,884	7,402,563
<u>TOTAL:</u>	4,932,091	4,533,687	24,527,650	9,663,106	17,464,110

(a) Includes Cyanides of Potassium and Sodium £279,700. (b) Excludes Soap and Fertilizers.

TABLE 16 : VALUE OF EXPORTS OF CHEMICALS, DRUGS, MEDICINES, ETC. : AUSTRALIA
(£A. f.o.b. port of shipment)

Item	1938-39	1945-46	1951-52	1952-53	1953-54
Acids	27,632	60,385	415,365	129,654	80,080
Drugs and Medicinal Preparations	217,118	396,160	1,768,491	1,945,092	1,269,500
Sodium Salts	8,102	52,625	177,698	67,223	65,802
Cream of Tartar and Substitutes	31,146	40,448	100,210	81,640	130,300
Dyes	3,936	5,324	14,668	9,631	81,248
Perfumery and Toilet Preparations	43,014	337,954	248,781	215,860	193,874
Essential Oils (Non-Spirituous)	108,718	240,306	499,933	259,431	206,287
All Other Chemicals and Drugs (a)	288,958	1,293,644	1,946,827	2,041,317	1,679,061
<u>TOTAL:</u>	728,624	2,426,846	5,171,973	4,749,848	3,706,872

(a) Excludes Soap and Fertilizers.

S. R. CARVER
ACTING COMMONWEALTH STATISTICIAN

COMMONWEALTH BUREAU OF CENSUS AND STATISTICS

CANBERRA. A.C.T. 12TH OCTOBER, 1955

LIST OF INDUSTRIES INCLUDED IN THE SERIES.

- No. 1. CEMENT AND CEMENT GOODS.
- " 2. BRICKS, TILES, POTTERY AND EARTHENWARE.
- " 3. CHEMICALS, DRUGS AND MEDICINES.
- " 4. WHITE LEAD, PAINTS AND VARNISH.
- " 5. CHEMICAL FERTILIZERS.
- " 6. SOAP AND CANDLES.
- " 7. BASIC METAL INDUSTRIES.
- " 8. METAL FABRICATING INDUSTRIES.
- " 9. MOTOR VEHICLES AND CYCLES.
- " 10. COTTON MILLS.
- " 11. WOOLLEN MILLS.
- " 12. ROPE AND CORDAGE.
- " 13. TANNERIES.
- " 14. BOOTS AND SHOES.
- " 15. CLOTHING (INCLUDING HOSIERY AND KNITTED GOODS)
- " 16. FLOUR AND OTHER GRAIN MILLS.
- " 17. BISCUITS.
- " 18. CONFECTIONERY.
- " 19. JAM, FRUIT, VEGETABLES, PICKLES, SAUCES, CONDIMENTS, ETC.
- " 20. BACON CURING.
- " 21. BUTTER, CHEESE AND CONDENSED, CONCENTRATED, ETC., MILK.
- " 22. AERATED WATERS AND CORDIALS.
- " 23. MEAT AND FISH PRESERVING.
- " 24. BREWERIES.
- " 25. WINERIES AND DISTILLERIES.
- " 26. TOBACCO, CIGARS AND CIGARETTES.
- " 27. SAWMILLING.
- " 28. PULP AND PAPER MAKING.
- " 29. RUBBER WORKS.
- " 30. BROOMS AND BRUSHES.
- " 31. ELECTRIC LIGHT AND POWER WORKS.
- " 32. GAS WORKS.
- " 33. PLASTIC MOULDING AND PRODUCTS.