



**Australian
Bureau of
Statistics**

**December 1989
Production of Paper, Plastics
Paints, Industrial Chemicals
and Detergents
Australia**

Catalogue No. 8362.0

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**PRODUCTION OF PAPER, PLASTICS, PAINTS, INDUSTRIAL
CHEMICALS AND DETERGENTS, AUSTRALIA
DECEMBER 1989**

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Australian Statistician

AUSTRALIAN BUREAU OF STATISTICS

CATALOGUE NO. 8362.0

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TABLE 1. WOOD PULP(a)
(tonnes)

Period	Mechanical (251.20)	Other (251.70.90)	Total
1986-87	373,789	534,629	908,418
1987-88	414,297	580,192	994,489
1988-89	438,775	597,160	1,035,935
1988—			
October	38,331	45,695	84,026
November	36,165	48,142	84,307
December	37,037	51,659	88,696
1989—			
January	36,577	48,259	84,836
February	36,253	50,602	86,855
March	27,815	53,482	81,297
April	35,778	41,227	77,005
May	38,635	55,307	93,942
June	36,162	49,550	85,712
July	36,329	47,166	83,495
August	40,845	46,544	87,389
September	32,434	50,895	83,329
October	37,571	41,414	78,985
November	32,558	47,604	80,162
December	36,386	52,030	88,416
1988-89: July to Dec.	227,555	298,733	526,288
1989-90: July to Dec.	216,123	285,653	501,776

(a) Quantities shown represent tonnes air-dried.

TABLE 2. PAPER AND PAPERBOARD
(tonnes)

Period	Tissue and sanitary(b)	Other paper and paperboard in strips, rolls or sheets(a)							Total
		Parchmen(c)		Embossed(d)					
	Newsprint (641.10)	(641.65,66,67)	Grease- proof (641.80)	Other (641.81)	Corrugated paperboard (641.68)	Other (641.82)	Graphic (642.48)	Other (641.87)	
1986-87	386,320	133,402							
1987-88	401,066	n.p.							
1988-89	401,269	n.p.							
1988—									
October	35,855	n.p.							
November	33,526	n.p.							
December	34,711	n.p.							
1989—									
January	32,685	n.p.							
February	31,244	n.p.							
March	24,053	n.p.							
April	33,756	n.p.							
May	37,850	n.p.							
June	32,236	n.p.							
July	32,250	17,763	—	n.p.	n.p.	n.p.	48,115	63,531	178,906
August	33,055	17,185	—	n.p.	n.p.	n.p.	52,194	64,603	183,787
September	27,289	15,009	—	n.p.	n.p.	n.p.	62,152	77,012	195,491
October	32,981	n.p.	—	n.p.	n.p.	n.p.	60,154	60,015	177,265
November	29,489	n.p.	—	—	n.p.	n.p.	47,628	68,983	169,153
December	33,453	n.p.	—	—	n.p.	n.p.	56,477	64,556	171,458
1988-89: July to Dec.	209,445	n.p.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1989-90: July to Dec.	188,517	n.p.	—	n.p.	n.p.	n.p.	326,720	398,700	1,076,060

(a) Rolls or strips exceeding 15 cm wide; sheets exceeding 36 cm by 15 cm, unfolded. (b) Rolls exceeding 36 cm wide; sheets with at least one side exceeding 36 cm unfolded. (c) Includes vegetable parchment, tracing papers, glassine and other glazed, transparent or translucent papers. (d) Includes corrugated, creped, crinkled, embossed or perforated.

TABLE 3. PLASTIC TUBES, PIPES, HOSES, FILM, SHEETING AND COATED MATERIALS (tonnes)

(tonnes)								
Flexible plates, sheets, foil and strip of plastic(a)								
Period	Polymers of ethylene			Polymers of propylene (582.33)	Other (582.34)	Plastic coated textile materials (657.32)	Tubes, pipes and hoses	
	Polymers of vinyl chloride (582.32)	Low density(b) (582.31)	High density (582.38)				High density polyethylene (581.82)	Rigid PVC(c) (581.22)
Not available prior to July 1989								
1989—								
July	1,043	9,976	2,114	1,007	1,685	2,285	1,094	5,937
August	1,249	10,553	2,216	1,171	1,420	2,413	1,515	7,173
September	1,177	9,815	2,432	1,119	1,499	2,643	1,431	6,790
October	1,114	10,164	2,409	1,038	1,734	2,281	1,664	6,725
November	1,316	9,954	2,095	1,242	1,622	2,027	1,954	7,709
December	1,124	7,072	1,837	913	1,271	2,422	1,056	5,557
1989-90: July to Dec.	7,023	57,534	13,102	6,491	9,230	14,071	8,714	39,890

(a) Excludes self-adhesive, floor, wall and ceiling coverings, vulcanised fibre and plastic foam. Also excludes reinforced, laminated or supported with other materials.
 (b) Includes linear low density polyethylene. (c) Plasticiser content 1 per cent or less by weight of PVC. Excludes electrical conduit.

TABLE 4. PLASTICS IN PRIMARY FORMS(a) (tonnes)

Period	Not mixed or compound(b)					Regranulated scrap		
						Single thermo-plastic (576.04)	Mixtures (579.00)	Total
	Polyethylene (571.13)	Polystyrene (572.14)	PVC (573.15)	Polypropylene (575.14)	Polyvinyl acetate (575.98)	Mixed or compound (b) (576.01)	(576.02)	
1986-87								904,108
1987-88								990,204
1988-89								986,373
1988—								89,677
October								82,975
November								72,590
December								
1989—								76,977
January								88,950
February								71,924
March								80,868
April								88,288
May								85,586
June								76,249
July	14,319	n.p.	n.p.	n.p.	657	29,529	2,235	n.p.
August	17,807	14,196	n.p.	15,864	833	31,891	2,846	n.p.
September	20,581	4,843	n.p.	14,702	747	31,229	2,263	n.p.
October	20,130	5,790	n.p.	15,305	922	34,163	3,160	n.p.
November	19,364	5,434	n.p.	14,711	1,084	33,118	3,242	n.p.
December	14,856	3,898	n.p.	12,029	604	23,416	2,810	n.p.
1988-89: July to Dec.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	509,584
1989-90: July to Dec.	107,057	n.p.	n.p.	n.p.	4,847	183,346	16,556	506,926

(a) Primary forms includes liquid, paste, powder, granules, flakes, blocks, irregular shapes, lumps and similar bulk forms. (b) Excludes reggranulated scrap.

TABLE 5. PAINTS AND OTHER SURFACE COATINGS
(*000 litres)

Period	Architectural and decorative paints, enamels and clears(a)							
	Solvent thinned				Water thinned			
	Finishing coats				Plastic latex			
	Primers and undercoats (533.65)	Pigmented		Clears (533.68)	Primers and undercoats (533.69)	Finishing coats		Other water based (533.73)
		Full gloss (533.66)	Other (533.67)			Flat (533.71)	Other (533.72)	
1986-87	6,515	11,656	4,805	3,720	5,309	29,047	23,656	4,129
1987-88	6,170	12,227	4,796	3,701	6,264	31,889	26,347	4,879
1988-89	6,024	11,285	4,947	3,861	6,676	35,515	31,812	5,675
1988—								
October	452	803	402	368	568	3,252	2,688	585
November	652	1,151	528	299	617	3,068	3,155	585
December	481	895	371	363	626	3,793	3,250	535
1989—								
January	492	829	355	242	600	3,093	2,729	402
February	471	1,019	358	305	532	3,483	2,709	517
March	623	1,245	466	294	573	3,253	2,883	498
April	433	796	365	247	483	2,791	2,619	345
May	621	1,207	499	378	626	2,770	2,910	457
June	483	886	420	328	555	2,284	2,060	365
July	437	967	361	296	533	2,656	2,486	418
August	433	862	367	314	56	2,264	2,490	559
September	577	1,101	392	365	629	3,121	3,014	683
October	461	962	437	440	742	3,155	3,101	707
November	655	1,271	486	440	680	3,267	3,280	704
December	488	1,056	327	303	478	3,023	2,857	613
1988-89: July to Dec.	2,901	5,304	2,483	2,065	3,307	17,841	15,901	3,090
1989-90: July to Dec.	3,050	6,219	2,369	2,157	3,617	17,485	17,229	3,684

TABLE 5. PAINTS AND OTHER SURFACE COATINGS—continued
(*000 litres)

Period	Industrial paints, enamels and clears(b)							
	Automotive				Other industrial			
	Finishing coats				Finishing coats			
	Primers and undercoats (533.74)	Nitro- cellulose lacquers		Primers and undercoats (533.78)	Nitro-cellulose lacquers		Other	
		(533.75)	Other (533.76)		Clears (533.79)	Colours (533.81)	Clears (533.82)	Colours (533.83)
1986-87	4,422	459	9,259	7,715	3,009	1,162	7,051	20,130
1987-88	4,908	547	10,037	9,040	3,199	1,233	8,753	22,436
1988-89	5,038	575	10,991	10,293	3,522	1,155	8,583	25,640
1988—								
October	351	49	806	699	308	99	859	2,141
November	448	59	869	866	389	85	848	2,100
December	429	24	921	878	235	96	778	2,188
1989—								
January	275	23	529	610	172	49	618	1,505
February	419	61	899	841	309	76	665	2,312
March	374	57	1,185	917	324	109	731	2,333
April	424	43	790	895	292	82	690	2,264
May	535	61	1,149	1,113	403	111	799	2,358
June	533	54	1,146	980	295	115	613	2,436
July	398	54	897	891	286	81	596	2,132
August	495	40	887	50	336	71	692	2,273
September	554	52	990	1,030	351	113	714	2,441
October	568	54	932	1,146	424	105	636	2,518
November	461	58	918	1,058	1,390	102	601	2,430
December	456	38	935	865	294	91	556	1,565
1988-89: July to Dec.	2,479	278	5,292	4,937	1,726	613	4,467	12,432
1989-90: July to Dec.	2,931	295	5,559	5,840	2,082	563	3,795	13,359

(a) Includes all paints and coatings for use on buildings and structures. Excludes heavy duty coatings. (b) Includes lacquers and water thinned industrial products.

TABLE 5. PAINTS AND OTHER SURFACE COATINGS—continued
(*000 litres)

Period	Heavy duty coatings(a) (533.77)	Wood stains (oil, spirit, etc.)packed for sale or transfer out(b) (533.84)	Marine coatings (c) (533.85)	Thinners	
				For nitro- cellulose coatings (533.56)	For all other coatings (533.57)
1986-87	7,880	2,807	1,820	8,106	17,186
1987-88	9,137	2,342	2,076	8,751	18,162
1988-89	10,832	2,448	2,092	8,641	18,312
1988—					
October	828	231	183	784	1,610
November	866	223	206	769	1,692
December	990	218	209	598	1,471
1989—					
January	672	171	156	545	1,184
February	947	213	191	743	1,448
March	976	230	162	841	1,764
April	941	179	182	710	1,518
May	1,039	223	180	821	1,664
June	1,040	169	171	627	1,643
July	985	178	165	627	1,420
August	973	182	141	624	1,482
September	1,146	218	146	802	1,895
October	962	261	211	774	1,845
November	1,129	218	184	760	1,974
December	1,138	201	154	556	1,597
1988-89: July to Dec.	5,217	1,263	1,049	4,355	9,090
1989-90: July to Dec.	6,332	1,258	1,000	4,143	10,214

(a) Includes specialty coatings specifically designed for the protection of interior and exterior of buildings, plant and equipment etc. (b) Includes part-pigmented, Madison and Crostone types. (c) Includes primers and undercoats, underwater compositions, boat-topping, deck paints and marine varnishes. Excludes superstructure paints which are included with architectural and decorative paints.

TABLE 6. PAINTS AND OTHER SURFACE COATINGS: STATES—DECEMBER 1989
(*000 litres)

Code No.	Item	NSW	Vic.	Other States	Australia
	Architectural and decorative paints, enamels and clears(a)—				
	Solvent thinned—				
533.65	Primers and undercoats	107	99	282	488
	Finishing coats, pigmented—				
533.66	Full gloss	204	329	523	1,056
533.67	Other than full gloss	59	141	127	327
533.68	Finishing coats, clears	166	117	20	303
	Water thinned—				
	Plastic latex—				
533.69	Primers and undercoats	239	138	101	478
	Finishing coats—				
533.71	Flat	1,485	485	1,053	3,023
533.72	Other than flat (satin, semi-gloss, gloss)	1,422	614	821	2,857
533.73	Other water based	347	93	173	613
	Industrial paints, enamels and clears(b)—				
	Automotive—				
533.74	Primers and undercoats	33	376	47	456
	Finishing coats—				
533.75	Nitro-cellulose lacquers	29	n.p.	n.p.	38
533.76	Other	213	675	47	935
	Other industrial—				
533.78	Primers and undercoats	431	280	154	865
	Finishing coats—				
	Nitro-cellulose lacquers—				
533.79	Clears	155	71	68	294
533.81	Colours	59	21	11	91
	Other—				
533.82	Clears	125	409	22	556
533.83	Colours	452	912	201	1,565
533.77	Heavy duty coatings(c)	185	529	424	1,138
533.84	Wood stains (oil, spirit, etc.) packed for sale or transfer out(d)	113	80	8	201
533.85	Marine coatings(e)	n.p.	n.p.	139	154
	Thinners—				
533.56	For nitro-cellulose coatings	193	168	195	556
533.57	For all other coatings	546	717	334	1,597

(a) Includes all paints and coatings for use on buildings and structures. Excludes heavy duty coatings. (b) Includes lacquers and water thinned industrial products. (c) Includes specialty coatings specifically designed for the protection of interiors and exteriors of buildings, plant and equipment etc. (d) Includes part-pigmented, Madison and Crostone types. (e) Includes primers and undercoats, underwater compositions, boat-topping, deck paints and marine varnishes. Excludes superstructure paints which are included with architectural and decorative paints.

TABLE 7. INDUSTRIAL CHEMICALS

TABLE 7. INDUSTRIAL CHEMICALS									
Period	Acids (in terms of 100% acid)				Other mineral or Chemical fertilisers				
	Hydrochloric; Chlorosulphuric (522.31)	Sulphuric; Oleum		Trend(b)	Ammonium sulphate (562.13)	Superphosphate(c) (562.23,24,25)	Phosphatic (562.26)	Potassic (562.30)	
		Original (522.32)	Seasonally Adjusted(a)						
		tonnes	'000 tonnes						'000 tonnes
1986-87		1,680	..	..	165,397				
1987-88		1,818	..	..	179,211				
1988-89		1,904	..	..	164,776				
1988—							Not available prior to July 1989		
October	Not available	140	156	159	10,924				
November	prior to	132	133	155	10,863				
December	July 1989	191	168	154	19,887				
1989—				r					
January		177	154	156	9,207				
February		158	157	159	11,500				
March		178	158	160	11,707				
April		171	156	158	n.p.				
May		182	171	152	14,921				
June		140	144	143	n.p.				
July	4,951	98	120	132	13,451	115,667	n.p.	n.p.	
August	n.p.	105	121	123	22,242	155,698	—	n.p.	
September	n.p.	100	118	117	14,369	126,699	n.p.	n.p.	
October	n.p.	100	109	116	23,301	121,464	n.p.	n.p.	
November	3,073	117	118	116	21,248	227,325	n.p.	n.p.	
December	4,920	138	120	118	20,892	250,991			
1988-89: July to Dec.	n.a.	898	..	..	97,141	n.a.	n.a.	n.a.	
1989-90: July to Dec.	n.p.	659	..	..	115,503	997,844	n.p.	n.p.	

(a) See paragraph 5, Explanatory Notes. (b) See paragraph 6 to 8, Explanatory Notes. (c) Double and triple superphosphates expressed in terms of single phosphate i.e. 9% P equivalent.

TABLE 8. ORGANIC SURFACE-ACTIVE AGENTS (a)
(tonnes)

Period	Anionic(b) (554.24)	Cationic(c) (554.25)	Other(d) (554.26)
Not available prior to July 1989			
1989—			
July	2,132	760	606
August	2,366	747	457
September	2,597	626	445
October	2,245	925	555
November	2,199	1,024	497
December	2,305	528	548
1989-90: July to Dec.	13,844	4,610	3,108

(a) Organic surface-active agents are capable of absorption at an interface and in that state display a number of physico-chemical properties responsible for surface activity (e.g. reduction of surface tension, foaming, emulsifying and wetting). Excludes soap. (b) Organic surface-active agents which ionise in aqueous solution to produce negatively charged organic ions responsible for surface activity (e.g. sulphates and sulphonates of fats, vegetable oils or resin acids). (c) Organic surface-active agents which ionise in aqueous solution to produce positively charged organic ions responsible for surface activity (e.g. salts of fatty amines). (d) Includes non-ionic and amphoteric agents.

TABLE 9. DETERGENTS AND SOAP

Period	Soaps in bars, cakes, moulded pieces or shapes for personal use(a) (554.12) tonnes	Shampoo (553.31) tonnes	Scouring preparations(b) (554.39) tonnes	Surface-active washing or cleaning preparations					
				Fabric washing		Dish washing preparations		Soaking, rinsing or bleaching preparations (554.53) tonnes	Other(d) (554.54) tonnes
				Liquid (554.28) '000 litres	Other(c) (554.29) tonnes	Liquid (554.51) '000 litres	Other(c) (554.52) tonnes		
1986-87	27,383								
1987-88	30,330								
1988-89	26,764								
1988—				Not available prior to July 1989					
October	2,330								
November	1,988								
December	1,590								
1989—									
January	913								
February	2,199								
March	2,263								
April	2,228								
May	2,302								
June	2,983		r						
July	2,910	r1,705	878	5,182	9,282	2,611	292	1,825	3,119
August	3,112	r1,670	959	6,096	10,557	3,154	348	1,678	3,021
September	3,232	1,756	976	7,629	9,726	3,430	r361	2,186	3,580
October	2,867	1,786	1,201	6,179	10,892	2,605	499	2,255	r3,519
November r	2,770	1,611	610	5,181	9,406	2,986	346	2,335	3,735
December	2,385	1,255	751	4,659	7,350	1,889	279	1,975	2,190
1988-89: July to Dec.	13,876	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1989-90: July to Dec.	17,275	9,783	5,374	34,926	57,213	16,674	2,125	12,253	19,164

(a) Includes abrasive and medicated. (b) Includes abrasive soap not in bars, cakes, moulded pieces or shapes. (c) For example powders. (d) Includes surface-active preparations for use in the processing or preparation of minerals, hides and skins, paper, dyed textiles, textile fibres, pharmaceutical and cosmetic products.

EXPLANATORY NOTES

Introduction

This publication is one of a series of nine containing monthly and quarterly production statistics. The titles of the other publications of this series are shown in paragraph 9.

Classification

2. Data contained in these publications are mostly based on monthly or quarterly collections conducted by the Australian Bureau of Statistics (ABS). Most items are identified by the commodity codes used in Australian Manufacturing Production Commodity Classification (AMPCC), which was developed by the ABS to facilitate greater comparability of manufacturing production commodity statistics with import and export commodity statistics. AMPCC items were introduced into the monthly production collections (catalogues 8301.0, 8357.0 to 8363.0, 8367.0 and 8368.0) from July 1989. The last available data relating to superseded commodity items are published in the June 1989 issue. In cases where data are derived from sources other than ABS collections no commodity code is shown and the source of the data is acknowledged in a footnote.

Scope and coverage

3. Manufacturing commodity statistics collected by the ABS exclude details relating to single establishment manufacturing enterprises with fewer than four persons employed and production of establishments predominantly engaged in non-manufacturing activities but which may carry on, in a minor way, some manufacturing. However, except for a few commodities the effect on production levels and movements is marginal.

4. Annual figures shown in this publication are derived by aggregating monthly/quarterly production and relate to production during the year ended 30 June. They may differ from annual manufacturing census data which relate to the census year and, in the case of businesses unable to report on a June year basis, include details in respect of substitute accounting periods.

Seasonal adjustment and trend estimates

5. This publication contains seasonally adjusted statistics of several items. In the seasonal adjustment account had been taken not only of normal seasonal factors but also, where appropriate, of 'working-day' effects (arising from the varying numbers of Sundays, Mondays, Tuesdays etc. in the month) and the influence of Easter and Australia Day which may, in successive years, affect figures for different months. However, care should be exercised in interpreting the figures for those months in which Christmas/New Year and Easter holidays fall as some manufacturers vary holiday shutdowns in the light of prevailing demand for their products. Details of the methods used in seasonally adjusting these and other series are available on request.

6. The smoothing of seasonally adjusted series to create trend estimates is a means of reducing the impact of the irregular component of the series. The trend estimates have been derived by applying a 13-term Henderson

weighted moving average to the seasonally adjusted series.

7. While this smoothing technique enables estimates of trend to be produced for the latest month, it does result in revisions to the estimates for the most recent months as data for subsequent months become available. Generally subsequent revisions become smaller and after 3 months have little impact on the series. There will also be revisions as a result of revisions to the original estimates and annual reviews of seasonal and 'working day' factors.

8. Users may wish to refer to the ABS Information Papers *A Guide to Smoothing Time Series — Estimates of 'Trend'* (1316.0) and *Time Series Decomposition — An Overview* (1317.0) for more detailed information on smoothing of seasonally adjusted time series data.

Related publications

9. Other ABS publications which may be of interest are:

Production Statistics, Australia, Preliminary (8301.0) — issued monthly

Production of Household Appliances and Electrical Equipment, Australia (8357.0) — issued monthly

Production of Clothing and Footwear, Australia (8358.0) — issued monthly

Production of Food, Drink, Tobacco and Stock and Poultry Food, Australia (8359.0) — issued monthly

Production of Fibres, Yarns, Fabrics, Bedding and Floor Coverings, Australia (8360.0) — issued monthly

Production of Building Materials and Fittings, Australia (8361.0) — issued monthly

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Manufacturing Commodities : Selected Principal Articles Produced, Australia 1986-87, Preliminary (8365.0)

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