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BOARD OF TRADE

FINAL REPORT  
on the  
CENSUS OF PRODUCTION  
FOR 1948

Volume 2

Trade E

CHEMICALS (GENERAL)

*Presented by the Board of Trade to Parliament  
in pursuance of the Statistics of Trade Act, 1947  
(10 & 11 Geo. 6, Ch. 39, Sec. 7).*

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In interpreting the data in the following tables, it is essential to bear in mind not only the qualifications mentioned in this report but also the general explanations and qualifications contained in the separate booklet published in this series by H.M. Stationery Office entitled "Final Reports of the Census of Production for 1948: Introductory Notes", price 2s.0d. NET

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\* Not applicable to this trade

CHEMICALS (GENERAL) TRADE

THIS REPORT on the Chemicals (General) Trade relates to establishments engaged wholly or mainly in the manufacture of miscellaneous chemicals, and of synthetic resins and plastic materials. Cellulose acetate production at establishments of textile firms is included in the report on the Rayon, Nylon, etc., and Silk Trade (Volume 6, Trade D). Fifteen Government establishments are included in 1948.

Separate reports have been published for establishments engaged wholly or mainly in the manufacture of coal tar products; of dyes and dyestuffs; of fertilizers, disinfectants, insecticides, etc.; of drugs and pharmaceutical preparations; and of explosives and fireworks.

This trade corresponds to minimum list heading 31 (3) and 31 (4) (apart from drugs, pharmaceutical chemicals and coal tar products) in the Standard Industrial Classification, with the addition of ceramic glazes and frits from heading 29 (3).

Any establishments in this trade in Northern Ireland are excluded in 1948. Owing to the risk of disclosure of information relating to individual firms, separate particulars of the very small output in Northern Ireland were not published in 1935.



CHEMICALS AND ALLIED TRADES  
CHEMICALS (GENERAL) TRADE

Summary  
Larger establishments

TABLE 1

	1948(a)	1946(b)	1937(b)	1935(b)
	£'000	£'000	£'000	£'000
Gross output (production)	187,245	122,380	44,295	36,650
Cost of materials and fuel used	111,948	69,190	21,867	17,443
Payment for work done on materials given out	461	534	7	7
Net output	74,836	52,656	22,421	19,200
Wages and salaries of persons employed	37,950	24,226	..	..
	No.	No.	No.	No.
Average number of persons employed (c)	100,537(d)	83,306	50,851	46,134
	£	£	£	£
Net output per person employed (c)	744	632	441	416
	£'000	£'000	£'000	£'000
Stocks at end of year				
Finished products and work in progress	13,196	8,447	..	..
Materials and fuel	24,471	12,189	..	..
	No.	No.	No.	No.
Number of establishments	510	..	..	340

- (a) Great Britain only.  
(b) United Kingdom.  
(c) Excluding outworkers.  
(d) For an estimate of the total number of persons employed in this trade see Table 3.

The values of gross output and of materials and fuel used are derived in the following way:-

	1948	1946	1937	1935
	£'000	£'000	£'000	£'000
Output of firms in this trade				
Total value of sales (1948 and 1946) or production (1937 and 1935)				
Principal products (see Table 8)	158,893	127,251	35,975	31,225
Other output (see Table 10)	30,383		8,320	5,425
Adjustment for changes in stocks and work in progress	+ 3,498(a)	- 407		
Less payment for transport by other firms	192,775 5,530	126,844 4,464	44,295	36,650
Gross output (production)	187,245	122,380	44,295	36,650
Materials and fuel used by firms in this trade				
Purchases (see Table 13)	115,552(b)	69,792(b)	21,867	17,443
Adjustment for changes in stocks	- 3,604(a)	- 602		
Materials and fuel used	111,948	69,190	21,867	17,443

- (a) See Table 14.  
(b) Excluding Customs and Excise rebates and drawbacks in respect of any materials on which duty was paid. The rebate and drawback receivable in 1948 in respect of alcohol amounted to £361,000.

Summary, 1948  
Small firms in Great Britain

TABLE 2

Number of returns	235
Average number of persons employed (a)	
Males	1,043
Females	337
Total	1,380

(a) Including working proprietors.

Estimated average employment, 1948  
All firms in Great Britain

TABLE 3

As returned by firms	
Employing on average more than ten persons (a)	100,537
Employing on average ten persons or less (b)	1,380
	101,917
Estimated average employment in firms not making satisfactory returns	447
Estimated average employment in all firms	102,364

- (a) See Tables 1 and 15.  
(b) See Table 2.

Analysis by size, 1948

Larger establishments in Great Britain

TABLE 4

Average number employed	Establishments	Gross output	Net output	Persons employed	Remuneration			Net output per person employed
					Wages	Salaries	Total	
	No.	£'000	£'000	No.	£'000	£'000	£'000	£
11-24	111	4,758	1,867	1,943	429	294	723	961
25-49	144	11,949	4,497	5,131	1,138	762	1,900	877
50-99	94	14,353	5,080	6,389	1,480	827	2,307	795
100-199	59	18,345	6,932	7,951	1,806	1,083	2,889	872
200-299	29	14,984	4,900	6,970	1,584	843	2,427	703
300-399	16	11,278	3,968	5,472	1,430	662	2,092	725
400-499	10	8,505	3,488	4,448	1,126	529	1,655	784
500-749	21	22,637	8,377	12,556	3,179	1,461	4,640	687
750-999	12	18,157	7,393	10,059	2,445	1,384	3,829	735
1,000-1,499	6	9,773	3,938	7,284	1,913	724	2,637	541
1,500 and over	8	52,507	24,396	32,334	8,523	4,328	12,851	754
Total	510	187,245	74,836	100,537	25,053	12,897	37,950	744



Analysis by standard region, 1948  
Larger establishments in Great Britain

TABLE 5

Region	Establishments	Gross output	Net output		Persons employed	Remuneration		
			Value	Percentage of total		Wages	Salaries	Total
England	No.	£'000	£'000		No.	£'000	£'000	£'000
Northern	27	31,893	13,887	18.6	20,813	5,413	2,673	8,086
East and West Ridings of Yorkshire	44	7,343	2,913	3.9	3,923	915	472	1,388
North Midland	22	3,278	1,353	1.8	1,654	398	210	609
Eastern	29	7,818	3,107	4.2	4,164	1,029	553	1,581
London and South Eastern	107	30,392	10,689	14.3	14,849	3,420	1,913	5,334
Southern	13	1,727	653	0.9	1,254	261	141	402
South Western	19	4,301	2,115	2.8	2,680	717	240	956
Midland	48	15,379	6,645	8.9	8,482	1,940	1,283	3,223
North Western	131	66,071	26,148	34.9	30,925	7,909	4,236	12,145
Total England	440	168,201	67,511	90.2	88,744	22,003	11,721	33,724
Wales	20	11,070	4,053	5.4	6,071	1,619	654	2,273
Scotland	50	7,974	3,272	4.4	5,722	1,431	522	1,953
Great Britain	510	187,245	74,836	100.0	100,537	25,053	12,897	37,950

Analysis according to specialisation within the trade, 1948  
Larger establishments in Great Britain

TABLE 6

	Establishments	Gross output	Sales of characteristic products	Net output	Persons employed	Remuneration			Net output per person employed
						Wages	Salaries	Total	
Specialist producers of	No.	£'000	£'000	£'000	No.	£'000	£'000	£'000	£
Plastic materials	48	25,489	23,618	10,466	14,599	3,260	2,323	5,583	717
Vitreous enamels and frits and ceramic glazes	6	719	633	270	258	63	49	113	1,046
Remainder of the trade	456	161,037		64,100	85,680	21,730	10,524	32,254	748
Total	510	187,245		74,836	100,537	25,053	12,897	37,950	744

Total make of intermediate products  
Larger establishments

TABLE 7

	Returned in this trade			Returned in all trades				
	1948 (a)		1937 (b)	1948 (a)		1937 (b)	1935 (b)	
	Quantity	Entries	Quantity	Quantity	Entries	Quantity		
Chemical manufactures		No.	Th. tons	Th. tons	Th. tons	No.	Th. tons	Th. tons
Acids								
Hydrochloric (as at 1.14 s.g.)	(c)	..	189.0	171.6	238.0	28	192.4	175.0
Nitric (in terms of 100 per cent. acid)	(c)	..	82.8	71.9	197.7	13	83.4	72.4
Salicylic, B.P. and equivalent grades	Th. lbs.	..	Th. lbs.	Th. lbs.	Th. lbs.	Th. lbs.	Th. lbs.	Th. lbs.
	2,676	..	3,647 (d)	5,048 (d)	2,676	6	3,819 (d)	5,307 (d)
Sulphuric (in terms of 100 per cent. acid)	Th. tons	..	Th. tons	Th. tons	Th. tons	..	Th. tons	Th. tons
	1,214.4	56	788.9	645.6	1,464.9	85	1,025.9	876.7
Nicotinic	(c)	..	(e)	(e)	9	..	(e)	(e)
Alcohols and alcohol ethers, not elsewhere specified								
Alcohols								
Higher fatty (f)	(c)	..	(e)	(e)	Th. cwts. 6.1	..	(e)	(e)
Sulphonated	(c)	..	Th. lbs.	Th. lbs.	Th. lbs. 44.4	9	Th. lbs.	Th. lbs.
Ethyl ether (sulphuric ether)	(c)	..	846	734	2,269	6	1,360	1,329
Aluminium compounds								
Alum (soda alum, potash alum and ammonia alum)	8.0	7	7.5	7.6	8.0	7	7.5	7.6
Aluminium sulphate	(c)	..	99.8	87.6	133.3	10	100.0	88.6



TABLE 7 (contd.)

	Returned in this trade				Returned in all trades			
	1948(a)		1937(b)	1935(b)	1948(a)		1937(b)	1935(b)
	Quantity	Entries	Quantity		Quantity	Entries	Quantity	
	Th. tons	No.	Th. tons	Th. tons	Th. tons	No.	Th. tons	Th. tons
Chemical manufactures (contd.)								
Aluminium compounds (contd.)								
Aluminium oxide								
Anhydrous, but not including abrasives	64.7	..	63.9	(e)	64.7	..	63.9	(e)
Hydrated	110.6	6			110.6	6		
Ammonia liquor (in terms of 880 Ammonia)	585.0	10	331.3	291.6	589.9	16	336.0	294.8
Ammonium carbonate and bicarbonate	5.0	5	3.6	3.5	5.0	5	3.7	3.5
Barium compounds								
Blanc fixe	(c)	..	51.7 (g)	54.7 (g)	14.6	5	53.7 (g)	56.5 (g)
Other sorts, excluding metallic driers, barytes, natural barium carbonate, and pigments	(c)	..			40.1	15		
Bleaching materials								
Sodium perborate	0.9	..	129.7	112.9	0.9	..	131.9	113.6
Other sorts	129.7	13			134.6	31		
Carbons, decolorising and activated	153.9	8	199.5	114.9	153.9	8	199.5	114.9
Chloroform	(c)	..	Th. lbs. 496.0	Th. lbs. 413.7	Th. lbs. 3,993.0	13	Th. lbs. 820.6	Th. lbs. 753.7
Formaldehyde, including solutions (in terms of 40 per cent. solution), and paraformaldehyde	65.6	..	Th. tons 14.1 (h)	Th. tons 9.5 (h)	Th. tons 68.3	8	Th. tons 15.9 (h)	Th. tons 10.8 (h)

TABLE 7 (contd.)

	Returned in this trade				Returned in all trades			
	1948(a)		1937(b)	1935(b)	1948(a)		1937(b)	1935(b)
	Quantity	Entries	Quantity		Quantity	Entries	Quantity	
	Mill.cu.ft.	No.			Mill.cu.ft.	No.		
Chemical manufactures (contd.)								
Gases, compressed, including liquified and solidified								
Acetylene, dissolved	(c)	..	(e)	(e)	383.4	8	(e)	(e)
Hydrogen	955.2	..	}	}	966.9	9	}	}
Nitrous oxide	Mill.galls. 116.3	..			Mill.galls. 116.3	..		
Oxygen	Mill.cu.ft. 3,460.6	..			Mill.cu.ft. 3,539.0	13		
Petroleum hydrocarbons (butane, isobutane and propane)	(c)	..	(e)	(e)	Th. tons 21.1	5	(e)	(e)
Iodides, not elsewhere specified, excluding ethyl iodide	Th. lbs.		Th. lbs.	Th. lbs.	Th. lbs.		Th. lbs.	Th. lbs.
	35.8	6	31.5	30.4	143.8	13	51.4	41.1
Iodine	29.9	5	92.6	110.1	113.9	16	116.1	133.0
Lead acetate	Th. cwts. 40.1	10	(e)	(e)	Th. cwts. 40.1	10	(e)	(e)
Magnesium compounds	Th. tons		Th. tons	Th. tons	Th. tons		Th. tons	Th. tons
Sulphate								
B.P. and equivalent grades	(c)	..	9.0	9.8	11.6	8	9.8	10.8
Other	10.7	8			10.7	8		
Chloride	(c)	..	14.9	12.2	0.2	7	15.1	12.2
Other, not elsewhere specified	(c)	..			44.4	20		
Plasticisers								
Butyl phthalate	1.7	..	(e)	(e)	1.7	..	(e)	(e)
Tricresyl phosphate	2.7	..			2.7	..		
Potassium compounds	Th. cwts.		Th. cwts.	Th. cwts.	Th. cwts.		Th. cwts.	Th. cwts.
Iodide	1.2	5	2.5	2.1	3.2	14	3.5	2.9
Nitrate, unrefined	-	-	-	-	107.9	..	-	-



TABLE 7 (contd.)

	Returned in this trade				Returned in all trades			
	1948(a)		1937(b)	1935(b)	1948(a)		1937(b)	1935(b)
	Quantity	Entries	Quantity		Quantity	Entries	Quantity	
Th. cwts.	No.	Th. cwts.	Th. cwts.	Th. cwts.	No.	Th. cwts.	Th. cwts.	
Chemical manufactures (contd.)								
Potassium compounds (contd.)								
Chloride (muriate)	1.5	..	101.6 (1)	131.4	1.5	..	145.4 (1)	211.2
Chromate	0.7	5			0.7	5		
Other sorts, not elsewhere specified	501.5	33			567.7	46		
Rubber substitute (factice)	(c)	..	(e)	(e)	22.6	..	(e)	(e)
Sodium compounds								
Bicarbonate, carbonate (including soda crystals and soda ash (on the basis of 58°)) and caustic (in terms of 76°E)	(c)	..	Th. tons 1,496.0	Th. tons 1,317.1	Th. tons 1,619.7	37	Th. tons 1,523.9	Th. tons 1,357.0
Chromate	6.5	6	162.0	126.0	6.5	6	162.0	126.0
Dichromate	225.6	6			225.6	6		
Phosphates	545.6	..	124.0	82.0	545.6	9	124.0	82.0
Sulphate, other than B.P. and equivalent grades	Th. tons (c)	..	(e)	(e)	Th. tons 124.1	26	(e)	(e)
Cyanide, nitrate, nitrite, and silicate (water glass), in terms of solid glass	(c)	..	(e)	(e)	103.9	13	(e)	(e)
Sulphide	32.6	9	(e)	(e)	32.6	9	(e)	(e)
Synthetic organic chemicals for photographic purposes, not elsewhere specified	Th. cwts. 3.6	5			Th. cwts. 3.6	5		
Synthetic organic chemicals for tanners' use, not elsewhere specified	87.2	7	14.9	7.9			60.7	
					175.2	15		

TABLE 7 (contd.)

	Returned in this trade				Returned in all trades			
	1948(a)		1937(b)	1935(b)	1948(a)		1937(b)	1935(b)
	Quantity	Entries	Quantity		Quantity	Entries	Quantity	
Th. cwts.	No.	Th. cwts.	Th. cwts.	Th. cwts.	No.	Th. cwts.	Th. cwts.	
Chemical manufactures (contd.)								
Tartar, cream of	(c)	..	57.4	59.5	12.3	..	58.7	60.6
Tartrates, not elsewhere specified	3.9	..			3.9	..		
Tin salts	(c)	..	15.6	13.9	4.3	8	17.4	15.7
Wood distillation products			Th. tons	Th. tons	Th. tons		Th. tons	Th. tons
Charcoal, other than decolorising and activated carbons	(c)	..	8.1	7.1	7.2	8	8.1	7.1
Fine chemicals, not elsewhere specified			Th. cwts.	Th. cwts.	Th. cwts.		Th. cwts.	Th. cwts.
Technical	(c)	..	24.4	23.3	109.1	17	67.5	59.9
Synthetic perfumery chemicals	(c)	..	11.4	8.4	31.8	15	11.7	8.8
Cadmium compounds, including plating salts but not pigments	(c)	..			2.8	14		
Calcium compounds								
Acetate	9.4	7	(e)	(e)	9.4	7	(e)	(e)
Carbide	Th. tons 95.5	..			Th. tons 95.5	..		
Other sorts, not elsewhere specified, excluding calcium cyanamide (nitrolim)	(c)	..			991.5	35		
Titanium dioxide	Th. cwts. 410.1	..	(e)	(e)	Th. cwts. 410.1	..	(e)	(e)
Carbon disulphide	(c)	..	Th. tons 20.5	(e)	Th. tons 38.1	5	Th. tons 20.8	(e)
Rubber accelerators, not elsewhere specified	(c)	..	(e)	(e)	5.6	11	(e)	(e)

(a) Great Britain only.

(b) United Kingdom.

(c) Owing to the risk of disclosure of information relating to individual firms separate figures cannot be given.

(d) Described as "Salicylic acid, including salicylates, not specified elsewhere".

(e) Not available.

(f) Excluding higher fatty alcohols from sperm oil.

(g) Not specified as excluding metallic driers, natural barium carbonate, and pigments.

(h) Described as "Formaldehyde, whether in solution or polymerised".

(i) Including some potassium and sodium nitrate mixtures.



Sales (or production) of the principal products of the trade, including sales (or production) of these products by establishments classified to other trades

## Larger establishments

TABLE 8

	1948(a) Sales			1937(b) Production		1935(b) (c) Production	
	Quantity	Value	Entries	Quantity	Value	Quantity	Value
	Th. tons	£'000	No.	Th. tons	£'000	Th. tons	£'000
Chemical manufactures							
Acids							
Hydrochloric (as at 1.14 s.g.)	222.7	1,487	27	170.2	551	156.6	504
Nitric (in terms of 100 per cent. acid)	45.0	928	13	19.5	339	14.6	237
Salicylic, B.P. and equivalent grades	1,571	140	6	2,783	132 (d)	2,652	157 (d)
Sulphuric (in terms of 100 per cent. acid)	1,134.3	6,911	76	743.9	2,414	599.0	1,958
Nicotinic	7.8	16	..				
Other acids, not elsewhere specified	..	4,688	64	38.1	1,512	34.2	1,360
Alcohols and alcohol ethers, not elsewhere specified							
Alcohols	Th. cwts.						
Higher fatty (e)	4.3	86	..	..	(f)	..	(f)
Sulphonated	43.4	380	9				
Ethyl ether (sulphuric ether)	2,076	186	6	1,340	87	1,318	84
Other alcohols and alcohol ethers, except ethyl alcohol	..	3,040	15	3,908	300 (g)	2,709	212 (g)
Aluminium compounds	Th. tons			Th. tons		Th. tons	
Alum (soda alum, potash alum and ammonia alum)	8.2	150	7	7.3	52	7.5	54
Aluminium sulphate	129.7	1,313	10	100.0	450	88.4	375
Aluminium oxide							
Anhydrous, but not including abrasives	64.9	1,641	..	61.3	950		
Hydrated	19.8	385	5			64.9	880 (h)
Other sorts, excluding metallic driers, bauxite and abrasives such as alundum	..	468	20	..	59 (i)		

TABLE 8 (contd.)

	1948(a) Sales			1937(h) Production		1935(b) (c) Production	
	Quantity	Value	Entries	Quantity	Value	Quantity	Value
	Th. tons	£'000	No.	Th. tons	£'000	Th. tons	£'000
Chemical manufactures (contd.)							
Ammonia liquor (in terms of 880 Ammonia)	240.3	2,131	16	54.2	341	43.9	264
Ammonium compounds							
Carbonate and bicarbonate	5.0	228	5	3.7	74	3.5	62
Other sorts, except ammonium sulphate and ammonium phosphate	132.4	2,756	31	27.6	348	34.8	454
Barium compounds							
Blanc fixe	14.6	322	5				
Other sorts, excluding metallic driers, barytes, natural barium carbonate, and pigments,	12.2	270	15	16.3	155 (1)	15.4	145 (1)
Bleaching materials							
Sodium perborate	0.9	98	..				
Other sorts	127.6	3,214	28	126.7	1,325	109.3	1,217
Proprietary bleaches (j)	12.6	617	13	-	-	-	-
Bromides, not elsewhere specified, excluding ethyl bromide	9.3	142	11	10.3	86	9.2	66
Carbons, decolorising and activated	154.3	506	8	199.5	367	114.9	120 (j)
Chloroform	3,204.8	319	13	814.2	108	740.9	104
Copper sulphate	33.4	1,358	12	32.5	586	34.9	447
Ethyl acetate	9,409	475	..	4,243	94	3,833	104
Ethyl chloride	..	503	..	1.6	27	2.2	28
Formaldehyde, including solutions (in terms of 40 per cent. solution) and paraformaldehyde	65.2	1,349	10	14.6	274 (k)	10.0	202 (k)



TABLE 8 (contd.)

	1948(a) Sales			1937(b) Production		1935(b)(c) Production	
	Quantity	Value	Entries	Quantity	Value	Quantity	Value
	Th. tons	£'000	No.	Th. tons	£'000	Th. tons	£'000
Chemical manufactures (contd.)							
Gases, compressed, including liquefied and solidified							
Carbon dioxide							
Solidified	25.5	598	8	18.1	250	19.1	281
Other	13.7	209	12				
Sulphur dioxide	4.3 ..	102 367	8	3.5	36	3.3	38
Acetylene, dissolved	Mill.cu.ft. 389.2	2,202	8				
Hydrogen	298.9 Mill.galls.	139(j)	9				
Nitrous oxide	115.7 Mill.cu.ft.	255	..				
Oxygen	3,541.9 Th. tons	3,456	13	..	2,246	..	1,704
Petroleum hydrocarbons (butane, isobutane and propane)	20.7	477	5				
Other sorts	..	4,007	19				
Iodides, not elsewhere specified, excluding ethyl iodide	Th. lbs. 97.8	70	13	Th. lbs. 51.4	20	Th. lbs. 41.1	16
Iodine	84.1	51	16	115.8	28	132.6	26
Lead compounds	Th. cwts.			Th. cwts.		Th. cwts.	
White lead, basic carbonate, dry	227.3	1,137	16	292.1	449	302.6	394
Lead oxides							
Litharge	132.0	692	8	142.2	223	141.8	151
Other, including red lead and orange lead	413.3	2,033	13	400.7	608(1)	421.1	431(1)
Lead acetate	6.9	40	5				
Other lead compounds, except pigments	210.0 ..	2,317 84	15				
Magnesium compounds	Th. tons			Th. tons		Th. tons	
Sulphate							
B.P. and equivalent grades	11.2	189	8	9.7	68	10.6	79
Other	10.4	159	8				

TABLE 8 (contd.)

	1948(a) Sales			1937(b) Production		1937(b)(c) Production	
	Quantity	Value	Entries	Quantity	Value	Quantity	Value
	Th. tons	£'000	No.	Th. tons	£'000	Th. tons	£'000
Chemical manufactures (contd.)							
Magnesium compounds (contd.)							
Chloride	0.2	9	7	13.6	237	10.7	195
Other, not elsewhere specified	39.6	1,163	20				
Plasticisers, not elsewhere specified							
Butyl phthalate	1.6	323	..	..	(f)	..	(f)
Tricresyl phosphate	2.6	511	..				
Other plasticisers, excluding camphor and chlorinated paraffin wax	4.1	984	13				
Potassium compounds	Th. cwts.			Th. cwts.		Th. cwts.	
Iodide	3.8	232	14	3.5	88	2.9	83
Nitrate, unrefined	66.1	160	..	-	-	-	-
Chloride (muriate)	1.5	5	..	136.2	228(m)	209.3	284
Chromate	0.3	4	5				
Other sorts, not elsewhere specified	489.8	1,425	47				
Rubber substitute (factice)	23.6	213	..	..	(f)	..	(f)
Sodium compounds	Th. tons			Th. tons		Th. tons	
Bicarbonate, carbonate (including soda crystals and soda ash (on the basis of 58°) and caustic (in terms of 76°E.))	1,564.8 Th. cwts.	17,821	34	1,242.3 Th. cwts.	7,272	1,102.1 Th. cwts.	6,852
Chromate	6.3	25	6	156.0	248	122.6	197
Dichromate	192.3	725	6				
Phosphates	469.5	1,608	10	121.2	79	79.6	53
Sulphate	Th. tons			Th. tons		Th. tons	
B.P. and equivalent grades	6.3	74	19	99.2	224	97.0	224
Other, including salt cake	87.8	579	25				



TABLE 8 (contd.)

	1948(a) Sales			1937(b) Production		1935(b)(c) Production	
	Quantity	Value	Entries	Quantity	Value	Quantity	Value
	Th. tons	£'000	No.	Th. tons	£'000	Th. tons	£'000
Chemical manufactures (contd.)							
Sodium compounds (contd.)							
Cyanide, nitrate, nitrite, and silicate (water glass), in terms of solid glass	83.0	2,249	13	198.4	1,965	164.9	1,738
Sulphide	31.7	668	9				
Other sorts, not elsewhere specified	162.7 Th. cwts.	2,750	63	Th. cwts.		Th. cwts.	
Synthetic organic chemicals for photographic purposes, not elsewhere specified	2.2	172	5	59.5	81	65.4	79
Synthetic organic chemicals for tanners' use, not elsewhere specified	169.4	362	15				
Tartar, cream of	14.6	113	..	58.5	219	60.6	226
Tartrates, not elsewhere specified	3.6	37	..				
Tin salts	2.9	48	8	16.0	108	15.1	98
Wood distillation products (except acetic acid, acetic anhydride, acetone, aluminium acetate, calcium acetate, lead acetate and methyl alcohol)	Th. tons			Th. tons		Th. tons	
Charcoal, other than decolorising and activated carbons	6.6	169	8	8.1	60	7.1	51
Other, including iron acetate liquor	..	129	6	..	5	..	10
Zinc oxide	61.8	4,229	15	52.2	1,132	48.0	787
Fine chemicals, not elsewhere specified	Th. cwts.			Th. cwts.		Th. cwts.	
Analytical, reagents and research	1.8 ..	38 4	11	5.1	46(n)	5.9	40(n)
Technical	98.1	966		17	61.9	334	59.6
Synthetic perfumery chemicals	25.7	675	15	10.1	219	8.6	213
Other, except medicinal	6.5	387	12	36.1	191	40.4	191
Unclassified	..	405	..	3.2	50	2.5	34

TABLE 8 (contd.)

	1948(a) Sales			1937(b) Production		1935(b)(c) Production	
	Quantity	Value	Entries	Quantity	Value	Quantity	Value
	Quantity	Value	Entries	Quantity	Value	Quantity	Value
	Th. lbs.	£'000	No.	Th. tons	£'000	Th. tons	£'000
Chemical manufactures (contd.)							
Metallic organic compounds (naphthenates, linoleates, resinates, stearates and like compounds) not separately specified, excluding metallo-organic medicinal compounds	.. Th. lbs.	700	16	..	(f)	..	(f)
Bismuth salts and compounds, excluding pigments	662.1 Th. cwts.	440	11	..	1,399	..	..
Cadmium compounds, including plating salts but not pigments	2.8	171	14				
Calcium compounds				..	1,399	..	..
Acetate	10.4 Th. tons	12	7				
Carbide	92.3	2,264	..	..	1,399	..	..
Other sorts, not elsewhere specified, excluding calcium cyanamide (nitrolim)	288.7 Th. cwts.	1,737	38				
Molybdenum compounds	30.9	138	5	..	1,399	..	..
Tin oxide	8.1	164	6				
Titanium dioxide	318.1	1,379	..	..	1,399	..	..
Metallic salts and compounds, not elsewhere specified, excluding pigment colours	.. Th. tons	5,222	..				
Carbon disulphide	38.1	1,355	5	Th. tons	333	..	5,687
Nitro-cellulose (collodion cotton), not intended for explosives (on the basis of net undamped weight)	4.6 Th. cwts.	1,235	..	..	4,325	..	..
Phosphorus	32.4 Th. tons	230	..				
Rubber accelerators, not elsewhere specified	3.8	1,078	11	..	4,325	..	..
Other chemical manufactures	..	21,802	..				
Unclassified chemical manufactures	..	959	26	-	-	-	-
Total chemical manufactures		133,063	..		33,402		29,514



TABLE 8 (contd.)

	1948 (a) Sales			1937 (b) Production		1935 (b) (c) Production	
	Quantity	Value	Entries	Quantity	Value	Quantity	Value
	Th. cwts.	£'000	No.	Th. cwts.	£'000	Th. cwts.	£'000
Plastic materials							
Liquid and solid resins, solutions, emulsions and dispersions, including polymers and co-polymers							
Acrylics	4.4	111	6				
Aminoplastics	207.8	1,023	8				
Phenolics and cresylics							
Straight	226.7	1,311	13				
Modified	65.3	473	5				
Other	601.2	5,685	29				
Unclassified	152.2	1,162	10				
Sheet, rod, tube, film, foil and profile shapes							
Casein	39.1	990	5				
Cellulose acetate (o)	29.1	1,105	13				
Other cellulose products (excluding celluloid)	5.5	236	..	519.2	2,841 (p)	348.5	2,026 (p)
Phenolics and cresylics (laminated only)	201.2	3,516	14				
Vinyl chlorides	107.6	2,775	20				
Other	161.2	5,176	28				
Moulding and extrusion materials							
Cellulose acetate (o)	62.2	1,256	12				
Phenolics and cresylics (including impregnated)	462.3	3,121	7				
Vinyl chlorides	129.8	1,976	8				
Other	202.0	1,832	14				
Total plastic materials		31,749	..		2,841		2,026

TABLE 8 (contd.)

	1948 (a) Sales			1937 (b) Production		1937 (b) (c) Production	
	Quantity	Value	Entries	Quantity	Value	Quantity	Value
	Th. tons	£'000	No.	Th. tons	£'000	Th. tons	£'000
Other chemical products							
Manufactured bituminous products							
Bituminous emulsions, except emulsions for use as paint (q)	Th. galls. 58.3 228 Th. tons	787 12	21	45.2	217	199.7	704 (r)
Other bituminous compounds, except paint and manufactured mastic asphalt	41.3 .. Th. cwts.	686 181	45	135.1 .. Th. cwts.	466 13	1h. cwts.	
Blacks, mineral and carbon, including vegetable, lamp, acetylene and bone black	115.6	247	10	71.8	88	55.9	64
Boiler compositions and disincrustants	178.7	578	27	..	173	..	143
Brewers' finings, etc.	.. Th. tons	250	17	..	97	..	124
Case hardening compounds (j)	2.3 .. Th. cwts.	47 31	6	-	-	-	-
Ceramic colours and enamels, not elsewhere specified	29.7 ..	499 245	10	5.7	109 (s)	6.6	114 (s)
Ceramic glaze	271.3	799	16	79.0	128 (t)	56.9	82 (j) (t)
Earth colours, processed or powdered							
Ochres	113.3	129	11				
Red oxides of iron	443.9	420	13				
Other earth colours, except black	198.5	251	11	619.8	388	547.9	329
Unclassified	18.9 Th. lbs.	96	18	Th. lbs.		Th. lbs.	
Essential oils, other than turpentine							
Natural, including mixtures of natural							
Terpeneless or sesquiterpeneless	9.9	64	12				
Other	581.1 ..	584 86	22	207.0	98 (j)	329.4	138 (j)
Synthetic	295.0	95	10	..	(f)	..	(f)
Finishing materials for the textile trades, other than oils, (including gum, starch etc.), not elsewhere specified	..	409	14	..	234	..	228



TABLE 8 (contd.)

	1948(a) Sales			1937(b) Production		1935(b)(c) Production	
	Quantity	Value	Entries	Quantity	Value	Quantity	Value
		£'000	No.		£'000		£'000
Other chemical products (contd.)	Th. lbs. 2,228	97					
Flavouring compounds (j)	Th. galls. 315 ..	235 229	12	-	-	-	-
Flavouring essences and dyes for foods, etc.							
Flavouring essences	..	2,356	79				
Dyes	..	271	36	..	646	..	1,183 (u)
Unclassified	Th. cwt. ..	1,293	38				
Iron oxides, chemically manufactured	1,554.4	997	20	..	(f)	..	(f)
Inorganic pigment colours (pure or reduced), dry and in pulp form, not elsewhere specified							
Iron blues	32.6	364	21				
Chromium compounds, including lead greens and zinc greens	164.2	1,566	40				
Other	292.1	1,251	59	Th. cwts. 544.0	1,723 (v)	Th. cwts. 485.8	1,565 (v)
Synthetic organic pigments (pure or reduced)							
Pigment dyestuffs	93.1	1,567	31				
Lakes and toners	118.1	1,375	37				
Lithopone, dry	Th. tons 52.1	1,714	..	Th. tons 46.7	671	Th. tons 37.8	538
Mastic and other adhesive cements (j)	Th. cwt. 82.1 ..	416 93	70	-	-	-	-
Pitch, other than coal tar pitch	Th. tons 3.7	110	22	5.1	84	4.4	44
Rosin size (for use in the paper trade) (j)	Th. cwts. 180.1	307	..	-	-	-	-
Sulphur	471.0	382	13	336.4	111	363.9	113
Sulphonated oils, other than sulphonated alcohols	Th. tons 10.0	893	23	10.4	220 (w)	8.6	172 (w)
Vitreous enamels and frits	Th. cwt. 318.2 ..	1,201 264	19	60.2	125	44.9	104 (j)
Purple iron ore	Th. tons 4.1	8	5	6.7	7	..	140
Ground barytes (x)	6.2	51	..	..	110	..	..
Other chemical products	..	1,211	..	..	..	..	..
Waste products	..	162	37	..	(f)	..	(f)

TABLE 8 (contd.)

	1948(a) Sales			1937(b) Production		1935(b)(c) Production	
	Quantity	Value	Entries	Quantity	Value	Quantity	Value
		£'000	No.		£'000		£'000
Work done for the trade or on commission (y)		1,727	72		96		79
Total		191,448	..		42,047		37,404
Less sales (or production) in other trades (see Table 9)		32,555	..		6,072		6,179
Total principal products of this trade sold or made by establishments in the trade		158,893	508		35,975		31,225

(a) Great Britain only.

(b) United Kingdom.

(c) Firms not covered by the 1937 Inquiry recorded the following output in 1935:-

	Th. tons	£'000
Carbon dioxide	4.0	51
Potassium compounds, other than iodide and cyanide	3.6	8
Other chemical manufactures	..	2
Manufactured bituminous products	9.3	75
Brewers' finings, etc.	..	29
Essential oils, other than turpentine	Th. lbs. 27.5	28
Flavouring essences and dyes for foods, etc.	..	1

(d) Described as "Salicylic acid, including salicylates not elsewhere specified".

(e) Excluding higher fatty alcohols from sperm oil for which see the Soap, Candles and Glycerine Trade (Volume 2, Trade J).

(f) Not recorded separately.

(g) Methyl alcohol (synthetic or from wood distillation processes) only.

(h) Not specified as excluding metallic driers.

(i) Not specified as excluding metallic driers, natural barium carbonate and pigments.

(j) So far as recorded separately.

(k) Described as "Formaldehyde, whether in solution or polymerised".

(l) Not specified as excluding pigments.

(m) Including some potassium and sodium nitrate mixtures.

(n) Reagents only.

(o) Excluding the output of textile firms for which see the Rayon, Nylon, etc., and Silk Trade (Volume 6, Trade D).

(p) Recorded as:-

	1937		1935	
	Th. cwts.	£'000	Th. cwts.	£'000
Synthetic resins				
Solid and liquid, uncured, cured or hardened	97.8	394		
Blocks, sheets, rods and tubes (laminated and unlaminated)	21.2	356	50.8	339
Powders, including moulding powder, in which the value of the resin is not less than 50 per cent.	311.6	1,219	217.0	885
Casein, celluloid, xylouite and the like, in sheets, rods, tubes, etc.	75.7	632	74.1	657
Cellulose acetate, benzy cellulose and the like, in sheets, rods, tubes, etc.	12.9	240	6.6	145

(q) Excluding bituminous emulsions recorded as paving materials for which see the Building Materials Trade (Volume 1, Trade L).

(r) Including some mastic asphalt.

(s) Described as "Potters' colours, dry".

(t) Described as "Glazes".

(u) Including unspecified quantities of powder and essences.

(v) Described as "Chemical colours (pure or reduced) including lakes, dry and in pulp form".

(w) Not specified as excluding sulphonated alcohols.

(x) Excluding ground barytes produced at mines and quarries.

(y) Amount charged in 1948 and amount received in 1937 and 1935.



Sales (or production) of principal products of the trade by establishments classified to other trades

## Larger establishments

TABLE 9

	1948(a) Sales			1937(b) Production		1935(b) Production	
	Quantity	Value	Entries	Quantity	Value	Quantity	Value
	Th. lbs.	£'000	No.	Th. lbs.	£'000	Th. lbs.	£'000
Chemical manufactures							
Acids							
Salicylic, B.P. and equivalent grades	-	-	..	172	12	259	22
	Th. tons			Th. tons		Th. tons	
Sulphuric (in terms of 100 per cent. acid)	100.2	551	21	86.5	250	78.5	223
Other acids, not elsewhere specified, including hydrochloric, nitric, and nicotinic	..	1,304	17	5.3	58	5.7	56
				Th. lbs.		Th. lbs.	
Alcohols and alcohol ethers, not elsewhere specified, except ethyl alcohol	..	250	9	513	38(c)	595	43(c)
				Th. tons		Th. tons	
Aluminium compounds other than alum, aluminium oxide, metallic driers, bauxite and abrasives such as alundum	..	94	..	0.2	1	0.9	5
Ammonia liquor (in terms of 880 Ammonia)	4.9	55	6	4.6	37	3.2	27
Ammonium compounds							
Carbonate and bicarbonate	-	-	-	0.1	1	-	1
Other sorts, except ammonium sulphate and ammonium phosphate	3.3	156	9	0.7	7	0.7	6
Barium compounds, excluding metallic driers, barytes, natural barium carbonate, and pigments	2.4	56	5	2.0	20	1.8	20
Bleaching materials							
Sodium perborate	-	-	-	2.1	60	0.6	37
Other sorts	4.8	168	14	Th. cwts.		Th. cwts.	
Bromides, not elsewhere specified, excluding ethyl bromide	7.2	111	5	1.4	11	1.3	9
	..	62					

TABLE 9 (contd.)

	1948(a) Sales			1937(b) Production		1935(b) Production	
	Quantity	Value	Entries	Quantity	Value	Quantity	Value
	Th. tons	£'000	No.	Th. tons	£'000	Th. tons	£'000
Chemical manufactures (contd.)							
Formaldehyde, including solutions (in terms of 40 per cent. solution) and paraformaldehyde	1.2	41	..	1.1	20	0.8	15
Gases, compressed, including liquified and solidified							
Carbon dioxide; sulphur dioxide; and acetylene, dissolved	..	600	12				
	Mill. cu. ft.						
Hydrogen and oxygen	90.2	19	..				
Other sorts, including petroleum hydrocarbons (butane, isobutane and propane) but excluding nitrous oxide	..	343	5		38	..	73
	Th. lbs.			Th. lbs.		Th. lbs.	
Iodides not elsewhere specified, excluding ethyl iodide	63.5	42	7	19.9	8	10.6	4
Iodine	51.3	31	11	23.2	6	22.5	7
Lead compounds	Th. cwts.			Th. cwts.		Th. cwts.	
Lead oxides	299.5	1,462	9				
Lead acetate	-	-	-				
Other lead compounds, including white lead (basic carbonate, dry) but excluding pigments	65.0	339	17	461.6	714	511.2	594
	..	84					
	Th. tons			Th. tons		Th. tons	
Magnesium compounds, not elsewhere specified	7.0	468	8	0.9	19	1.0	21
Potassium compounds	Th. cwts.			Th. cwts.		Th. cwts.	
Iodide	2.2	129	9	1.1	28	0.8	22
Other sorts, not elsewhere specified, including unrefined nitrate but excluding chloride (muriate) and chromate	110.0	401	14	43.8	82	79.7	99



TABLE 9 (contd.)

	1948(a) Sales			1937(b) Production		1935(b) Production	
	Quantity	Value	Entries	Quantity	Value	Quantity	Value
	Th. cwts.	£'000	No.	Th. cwts.	£'000	Th. cwts.	£'000
Chemical manufactures (contd.)							
Sodium compounds							
Phosphates	Th. tons	-	..	Th. tons	1	Th. tons	1
Sulphate, including salt cake	3.1	41	10	3.6	17	4.2	20
Other sorts, not elsewhere specified, other than chromate, dichromate and sulphide	..	1,032	25	61.5	626	53.4	586
Synthetic organic chemicals for photographic purposes, not elsewhere specified	Th. cwts.	-	-	Th. cwts.	45.5	Th. cwts.	58.1
Synthetic organic chemicals for tanners' use, not elsewhere specified	83.2	190	8		41	51	51
Wood distillation products (except acetic acid, acetic anhydride, acetone, aluminium acetate, calcium acetate, lead acetate and methyl alcohol)	Th. tons						
Charcoal, other than decolorising and activated carbons	0.3	9	..	-	-	-	-
Other, including iron acetate liquor	-	-	-	-	-	-	-
Zinc oxide	4.2	121	6	Th. tons 0.5	5	Th. tons 1.0	10
Fine chemicals, not elsewhere specified	Th. cwts.			Th. cwts.		Th. cwts.	
Technical	5.7	131	5	37.5	179	36.3	176
Other, including analytical, reagents, research, and synthetic perfumery chemicals but excluding medicinal	2.6	142	8	37.9	201	43.1	193
	..	2					
Unclassified	..	16	..	2.2	48	2.5	34
Metallic organic compounds (naphthenates, linoleates, resinates, stearates and like compounds) not separately specified, excluding metallo-organic medicinal compounds	..	69	5	-	-	-	-

TABLE 9 (contd.)

	1948(a) Sales			1937(b) Production		1935(b) Production	
	Quantity	Value	Entries	Quantity	Value	Quantity	Value
	Th. tons	£'000	No.	Th. tons	£'000	Th. tons	£'000
Chemical manufactures (contd.)							
Copper sulphate; tin salts; and tin oxide	19.1	777	..				
Bismuth salts and compounds, excluding pigments; cadmium compounds, including plating salts but not pigments; and molybdenum compounds	..	352	7			..	502
Calcium compounds, other than acetate, carbide and cyanide (nitrolim)	0.1	57	..				
Metallic salts and compounds, not elsewhere specified, excluding pigment colours and titanium dioxide	..	2,533	..				1,895
Nitro-cellulose (collodion cotton), not intended for explosives; chloroform; ethyl acetate; ethyl chloride; and carbon disulphide	..	1,376	12				
Rubber accelerators, not elsewhere specified; and rubber substitute (factice)	..	366	7			..	1,210
Other chemical manufactures, including cream of tartar, and plasticisers other than butyl phthalate and tricresyl phosphate	..	5,779	..				
Unclassified chemical manufactures	..	745	20			-	-
Total chemical manufactures		20,505	..		4,240		4,250



TABLE 9 (contd.)

	1948(a) Sales			1937(b) Production		1935(b) Production	
	Quantity	Value	Entries	Quantity	Value	Quantity	Value
	Th. cwts.	£'000	No.	Th. cwts.	£'000	Th. cwts.	£'000
Plastic materials							
Liquid and solid resins, solutions, emulsions and dispersions, including polymers and co-polymers	235.7	2,546	18	36.5	273	27.0	204
Sheet, rod, tube, film, foil and profile shapes							
Cellulose acetate	13.7	535	6				
Phenolics and cresylics (laminated only)	45.8	769	9				
Vinyl chlorides	49.7	1,276	8				
Other (excluding casein)	3.7	129	19				
Moulding and extrusion materials							
Cellulose acetate	13.3	264	5				
Other	35.5	410	11				
Total plastic materials		5,931	..		273		204
Other chemical products	Th. tons			Th. tons		Th. tons	
Manufactured bituminous products							
Bituminous emulsions, except emulsions for use as paint	12.5 Th. galls. 137 Th. tons	193 8	12	27.3	112	194.0	670
Other bituminous compounds, except paint and manufactured mastic asphalt	17.2 .. Th. cwts.	324 101	35	127.2 .. Th. cwts.	416 13		
Boiler compositions and disincrustants	17.1	76	14	..	47	..	35
Brewers' finings, etc.	..	64	8	..	11	..	40
Ceramic colours and enamels, not elsewhere specified; and ceramic glaze	144.0 ..	353 245	14	3.1	13	1.6	4
Earth colours, processed or powdered							
Ochres	-	-	..				
Red oxides of iron	0.4	1	..	11.4	11	10.2	9
Other earth colours, except black	2.0	7	..				
Unclassified	18.9 Th. lbs.	96	18				
Essential oils, other than turpentine	80.8	121	13	58.0	39	86.6	63

TABLE 9 (contd.)

	1948(a) Sales			1937(b) Production		1935(b) Production	
	Quantity	Value	Entries	Quantity	Value	Quantity	Value
	Th. cwts.	£'000	No.	Th. cwts.	£'000	Th. cwts.	£'000
Other chemical products (contd.)							
Flavouring compounds; and flavouring essences and dyes for foods, etc.	.. Th. cwts.	905	105	..	180	..	166
Iron oxides, chemically manufactured	41.3	7	..	-	-	-	-
Inorganic pigment colours (pure or reduced), dry and in pulp form, not elsewhere specified							
Iron blues	5.8	39	9	109.9	366	111.0	420
Chromium compounds, including lead greens and zinc greens	18.7	167	19				
Other	76.4	178	26				
Synthetic organic pigments (pure or reduced)							
Pigment dyestuffs	70.6	924	18				
Lakes and toners	28.9 Th. tons	326	15	Th. tons		Th. tons	
Lithopone, dry	-	-	-	1.6	24	1.2	19
Sulphonated oils, other than sulphonated alcohols	2.2 Th. cwts. 111.6 ..	163	..	2.9 Th. cwts.	65	2.2	58
Vitreous enamels and frits	..	448 186	9	0.8	2	-	-
Blacks, mineral and carbon, including vegetable, lamp, acetylene, and bone black; and finishing materials for the textile trades, other than oils, (including gum, starch, etc.) not elsewhere specified	..	186	5	Th. tons	136	..	128
Purple iron ore	-	-	-	1.1	2		
Mastic and other adhesive cements; and pitch, other than coal tar pitch	..	568	89			..	113
Other chemical products, including case hardening compounds	..	274	6	..	122		
Work done for the trade or on commission		159(d)	11		-		-
Total		32,555	..		6,072		6,179

- (a) Great Britain only.  
(b) United Kingdom.  
(c) Ethyl ether (sulphuric ether) only.  
(d) Amount charged.



## Sales (or production) in the trade of other than principal products

## Larger establishments

TABLE 10

	1948(a) Sales		1937(b) Production		1935(b) Production	
	Quantity	Value	Quantity	Value	Quantity	Value
		£'000		£'000		£'000
Coal tar and coal tar products	..	1,184	..	503	..	255
	Th. lbs.		Th. lbs.		Th. lbs.	
Drugs and pharmaceutical chemicals	8,577	1,505	3,319	442	2,782	491
	..	150				
Pharmaceutical preparations	..	216				
	Th. cwts.		Th. cwts.		Th. cwts.	
Dyes and dyestuffs	293.6	1,115	93.9	295	79.6	273
Perfumery, cosmetics and toilet preparations	..	324	..	26	..	22
	Th. tons		Th. tons		Th. tons	
Fertilisers	746.2	9,148	382.4	2,233	330.4	1,858
	Th. cwts.		Th. cwts.		Th. cwts.	
Disinfectants, antiseptics, and sheep and cattle dips and dressings	21.9	183	15.4	43	11.1	28
			..	21	Th. galls.	
					242	16
Insecticides and weed killers	189.4	1,015	8.0	35		
	..	732				
	Th. galls.					
Bituminous paints and bituminous solutions and emulsions for use as paint	1,018	88				
	Th. tons					
	0.5	33				
Paints, pigments and extenders in paste form	149.7	743				
Paints and painters' enamels, ready mixed	..	33	..	184	..	144
Varnishes and lacquers, not pigmented	..	41				
Other products of the Paint and Varnish Trade	..	338				
Plastic goods and accessories, except garments	..	603	..	414	..	425

TABLE 10 (contd.)

	1948(a) Sales		1937(b) Production		1935(b) Production	
	Quantity	Value	Quantity	Value	Quantity	Value
	Th. cwts.	£'000		£'000		£'000
Powders and essences for beverages (excluding fruit juices, solid soft drinks, and coffee and chicory essences and extracts)	7.6	424				
	Th. galls.					
Soft drinks	190	84				
	..	125				
Plant and machinery, including parts	..	758				
Manufactures of rubber, except garments	..	508				
Washing and scouring materials, other than soap	223.3	604	..	3,965	..	1,947
Ink, stains, dyes and gums for the leather and allied trades	..	241				
	Th. tons					
Concentrates, metallic residues, wastes, etc.	13.5	94				
	..	44				
Other goods and electricity, steam, gas and water sold	..	9,974				
Work done		76(c)		-		-
Total		30,383		8,320		5,425

(a) Great Britain only.

(b) United Kingdom.

(c) Amount charged.



## Analysis of sales, 1948

## Larger establishments in Great Britain

TABLE 11

	Sales	Percentage of total sales
	£'000	
Sales (or transfers) to other organisations under the same control		
Productive works	18,526	9.9
Export sales organisations (including branches abroad)	7,624	4.1
Other wholesale or selling organisations	5,579	3.0
Retail shops, etc.	42	-
Total sales (or transfers) to other organisations under the same control	31,771	16.9
Sales to independent buyers		
Exports invoiced directly overseas	15,970	8.5
Exports invoiced to Crown Agents and purchasing houses in this country of individual firms and governments abroad	3,913	2.1
His Majesty's Government and Local Authorities (other than productive establishments)	9,369	5.0
Manufacturers, repairers, builders, mines, public utilities, and transport and other productive undertakings	96,337	51.3
Wholesalers, merchants and other agents for resale	25,782(a)	13.7
Retailers, including multiple shops, caterers and N.A.A.F.I. for resale	2,603	1.4
Other businesses (including farmers) and institutions of all kinds	1,847	1.0
Members of the public, including employees	42	-
Total sales to independent buyers	155,862	83.1
Total	187,633	100.0

(a) Of this total £22,801,000 was recorded as divided between £3,816,000 for export and £18,985,000 for other sales.

## Production, exports and imports of certain principal products (a)

TABLE 12

	Production (b)	Exports (c)	Retained imports (d)
	Th. tons	Th. tons	Th. tons
Chemical manufactures			
Acids			
Nitric (in terms of 100 per cent. acid) (e)	{ 1948 197.7 1937 83.4	0.1	-
Salicylic, B.P. and equivalent grades (f)	{ 1948 2,676 1937 3,819	2,370	2
Sulphuric (in terms of 100 per cent. acid) (e)	{ 1948 1,464.9 1937 1,025.9	757	74
Other sorts, not elsewhere specified	Th. tons	Th. tons	Th. tons
Hydrochloric (as at 1.14 s.g.) (e)	1948 1,467(g)	4.4	-
Other	1948 4,705(g)	3.2	0.5
Total other sorts, not elsewhere specified	{ 1948 6,172(g) 1937 2,063(h)	£'000	£'000
Ethyl ether (sulphuric ether)	{ 1948 2,269 1937 1,360	25	-
Aluminium compounds	Th. tons	Th. tons	Th. tons
Alum (soda alum, potash alum and ammonia alum)	{ 1948 8.0 1937 7.5	878	1,149
Aluminium sulphate	{ 1948 133.3 1937 100.0	904	1,149
Aluminium oxide		376	495
Anhydrous, but not including abrasives	{ 1948 64.7 1937 (j)	Th. lbs.	Th. lbs.
Hydrated	{ 1948 110.6 1937 63.9	33	-
Other sorts, excluding metallic driers, bauxite, and abrasives such as alundum (k)	{ 1948 468(g) 1937 59(h)	89(1)	-
Ammonia liquor	{ 1948 589.9(l) 1937 336.0(l)	Th. tons	Th. tons
Ammonium compounds		Th. tons	Th. tons
Carbonate and bicarbonate	{ 1948 5.0 1937 3.7	Th. tons	Th. tons
Other sorts, except ammonium sulphate and ammonium phosphate	{ 1948 132.4(g) 1937 27.6(h)	£'000	£'000



TABLE 12 (contd.)

		Production (b)	Exports (c)	Retained imports (d)
		Th. tons	Th. tons	Th. tons
Chemical manufactures (contd.)				
Barium compounds, excluding blanc fixe, metallic driers, barytes, natural barium carbonate and pigments	{ 1948 1937	40.1 53.7(m)	3.7 6.2	1.3 2.4
Bleaching materials, including bleaching powder (chloride of lime), hydrosulphite and like compounds, hydrogen peroxide, sodium peroxide, percarbonates, persulphates, etc.	{ 1948 1937	135.5 131.9 £'000	26.9 43.6 £'000	0.3 2.9 £'000
Bromides, not elsewhere specified, including ethyl bromide	{ 1948 1937	204(g) 86(h) Th. cwts.	31(n) 25 Th. cwts.	- 11 Th. cwts.
Carbons, decolorising and activated	{ 1948 1937	153.9 199.5 Th. lbs.	31.4 9.9 Th. lbs.	3.0 20.0 Th. lbs.
Chloroform	{ 1948 1937	3,993.0 820.6 Th. tons	388.6 126.4 Th. tons	- - Th. tons
Copper sulphate	{ 1948 1937	33.4(g) 32.5(h) Th. lbs.	24.5 28.9 Th. lbs.	- 0.1 Th. lbs.
Ethyl acetate	{ 1948 1937	9,409(g) 4,243(h) £'000	102 33 £'000	- - £'000
Ethyl chloride	{ 1948 1937	503(g) 27(h) Th. tons	23 6 Th. tons	- - Th. tons
Formaldehyde, including solutions (in terms of 40 per cent. solution), and paraformaldehyde (o)	{ 1948 1937	68.3 15.9 £'000	3.9 0.5 £'000	- 0.5 £'000
Gases compressed, including liquefied and solidified	{ 1948 1937	11,813(g) 2,532(h) Th. lbs.	344 168 Th. lbs.	59 31 Th. lbs.
Iodides, not elsewhere specified, excluding ethyl iodide	{ 1948 1937	143.8 51.4	30.5(p) 16.1	- 142.0
Iodine	{ 1948 1937	113.9 116.1	97.5 66.6	643.1 44.3
Lead compounds		Th. cwts.	Th. cwts.	Th. cwts.
White lead, basic carbonate, dry	{ 1948 1937	227.3(g) 292.1(h)	43.3 30.2	- 73.5
Lead oxides				
Litharge	{ 1948 1937	132.0(g) 142.2(h)	23.5 57.0	- 22.5
Other, including red lead and orange lead (q)	{ 1948 1937	413.3(g) ..	90.2 116.3	- 34.1
Lead acetate	{ 1948 1937	40.1 ..	5.9 3.6	- 2.4

TABLE 12 (contd.)

		Production (b)	Exports (c)	Retained imports (d)
		Th. tons	Th. tons	Th. tons
Chemical manufactures (contd.)				
Magnesium compounds				
Chloride	{ 1948 1937	0.2 (r)	(r) 0.1	7.1 6.1
Other sorts, not elsewhere specified	{ 1948 1937	66.7 24.9	9.9 5.5	0.5 17.8
Potassium compounds				
Iodide	{ 1948 1937	Th. cwts. 3.2 3.5	Th. cwts. 2.4 1.3	Th. cwts. - 0.1
Chloride (muriate)	{ 1948 1937	1.5 ..	(r) 5.9	8,780.7 1,329.2
Other sorts, not elsewhere specified	{ 1948 1937	676.3 ..	98.5 53.5	413.1 2,349.2
Total potassium compounds other than potassium iodide	{ 1948 1937	677.8 145.4(s)	98.5 59.4	9,173.8 3,678.4
Sodium compounds				
Bicarbonate, carbonate (including soda crystals and soda ash) and caustic soda (t)	{ 1948 1937	1,619.7 1,523.9 Th. cwts.	335.3 381.2 Th. cwts.	0.1 1.2 Th. cwts.
Chromate and dichromate	{ 1948 1937	232.1 162.0	24.6 25.6	2.2 34.4
Phosphates	{ 1948 1937	545.6 124.0 Th. tons	93.9 24.5 Th. tons	- 35.9 Th. tons
Sulphate, including salt cake	{ 1948 1937	94.1(g) 99.2(h)	19.9 40.1	0.1 3.6
Cyanide, nitrate, nitrite, and silicate (water glass) (u)	{ 1948 1937	103.9 (r)	22.0 26.9	44.7(v) 41.8
Other sorts, not elsewhere specified	{ 1948 1937	194.4(g) 198.4(h) Th. cwts.	30.3 15.6 Th. cwts.	1.9 6.4 Th. cwts.
Synthetic organic chemicals for photographic purposes, not elsewhere specified	{ 1948 1937	3.6 ..	22.5 1.8	3.0 1.7
Tartar, cream of	{ 1948 1937	12.3 (w)	3.8 9.8	0.2 9.4
Tartrates, not elsewhere specified	{ 1948 1937	3.9 58.7 Th. tons	2.4 2.4 Th. tons	- 0.1 Th. tons
Charcoal, other than decolorising and activated carbons	{ 1948 1937	7.2 8.1	0.4 1.7	12.5 25.5
Zinc oxide	{ 1948 1937	61.8(g) 52.2(h) Th. cwts.	14.2 15.0 Th. cwts.	- 0.9 Th. cwts.
Cadmium compounds, including plating salts but not pigments	1948	2.8	0.8	-



TABLE 12 (contd.)

		Production (b)	Exports (c)	Retained imports (d)
		Th. cwts.	Th. cwts.	Th. cwts.
Chemical manufactures (contd.)				
Calcium compounds				
Acetate	1948	9.4	(r)	1.3
	1937	..	0.2	12.5
Carbide	1948	Th. tons 95.5	Th. tons 3.2	Th. tons 10.9
	1937	..	0.4	63.0
Other sorts, not elsewhere specified, excluding calcium cyanamide (nitrolim)	1948	£'000 1,737(g)	£'000 97(x)	£'000 6
	1937	..	49	33
Tin oxide	1948	Th. cwts. 8.1(g)	Th. cwts. 7.7	Th. cwts. -
	1937	..	7.1	3.7
Nitro-cellulose (collodion cotton), not intended for explosives (y)	1948	Th. tons 4.6(g)	Th. tons 1.2	Th. tons 0.1
	1937	..	0.8	1.2
Plastic materials				
Casein sheet, rod, tube, film, foil and profile shapes (z)	1948	Th. cwts. 39.1(g)	Th. cwts. 2.4	Th. cwts. 0.1
Moulding and extrusion materials				
Cellulose acetate	1948	62.2(g) (aa)	11.4(bb)	4.6(bb)
Phenolics and cresylics	1948	462.3(g)	45.8	49.8
Other chemical products				
Blacks, mineral and carbon, including vegetable, lamp, acetylene and bone black (cc)	1948	115.6(g)	23.8	948.5
	1937	71.8(h)	14.3	492.1
Ceramic colours and enamels, not elsewhere specified	1948	£'000 743(g)	£'000 449	£'000 2
	1937	..	..	..
Earth colours, processed or powdered				
Ochres	1948	Th. cwts. 113.3(g)	Th. cwts. 14.5	Th. cwts. 43.4
Red oxides of iron	1948	443.9(g)	113.4	31.4
Other earth colours, except black	1948	198.5(g)	48.6	26.0
Total earth colours, processed or powdered	1948	774.7(g) (dd)	176.5	100.7
	1937	619.8(h)	139.7	274.7
Essential oils, other than turpentine				
Natural, including mixtures of natural				
Terpeneless, or sesquiterpeneless	1948	Th. lbs. 9.9(g)	Th. lbs. 12.1	Th. lbs. 30.6
	1937	(r)	353.8	44.0
Other	1948	667.1(g) (ee)	387.0	2,961.8
	1937	207.0(h)	175.9	4,025.1
Synthetic	1948	295.0(g)	205.5	25.9
	1937	..	516.0	130.3
Flavouring essences and dyes for foods, etc.				
Flavouring essences	1948	£'000 2,356(g)	£'000 710	£'000 13
Dyes	1948	271(g)	158	..
Total flavouring essences and dyes for foods, etc.	1948	3,919(g) (ff)	868	13
	1937	646(h)	277	..

TABLE 12 (contd.)

		Production (b)	Exports (c)	Retained imports (d)
		Th. cwts.	Th. cwts.	Th. cwts.
Other chemical products (contd.)				
Iron oxides, chemically manufactured	1948	1,554.4(g)	65.4	5.7
Inorganic pigment colours, not elsewhere specified (pure or reduced), dry and in pulp form				
Iron blues	1948	32.6(g)	10.6	-
Chromium compounds (including lead greens and zinc greens)				
Synthetic organic pigments (pure or reduced)	1948	211.2(g)	28.8	0.1
	1937	..	10.9	-
Pitch, other than coal tar pitch	1948	Th. tons 3.7(g)	Th. tons 1.4	Th. tons 2.5
	1937	5.1(h)	10.5	2.1
Sulphur	1948	Th. cwts. 471.0(g)	Th. cwts. 77.9	Th. cwts. 6,954.7
	1937	336.4(h)	2.0	152.2
Ground barytes	1948	Th. tons 6.2(g) (gg)	Th. tons 4.7	Th. tons 9.9
	1937	..	..	..

- (a) Figures of sales (or production) refer only to larger establishments in Great Britain (1948) or the United Kingdom (1937). All recorded exports from and imports into the United Kingdom are given in the table. The figures, therefore, are not strictly comparable.
- (b) Including production by establishments classified to other trades.
- (c) Valued f.o.b.
- (d) Valued c.i.f.
- (e) The overseas trade figures relate to "Nitric acid", "Sulphuric acid" and "Hydrochloric acid" respectively.
- (f) The overseas trade and the 1937 production figures relate to "Salicylic acid, including salicylates".
- (g) Sales.
- (h) Production for sale.
- (i) The figures shown have been calculated on the basis of 311 gallons to the ton.
- (j) Included with hydrated aluminium oxide.
- (k) The overseas trade and the 1937 production figures are not specified as excluding metallic driers.
- (l) Returned in terms of 880 Ammonia.
- (m) Including blanc fixe.
- (n) Including ethyl bromide.
- (o) The overseas trade and the 1937 production figures relate to "Formaldehyde, whether in solution or polymerised".
- (p) Including ethyl iodide.
- (q) The overseas trade figures relate to red lead and orange lead only.
- (r) Included with "Other sorts".
- (s) Including some potassium and sodium nitrate mixtures.
- (t) The production figures for both years record soda ash on the basis of 58° and caustic in terms of 76° E.
- (u) The production figure records silicate in terms of solid glass.
- (v) Excluding silicate.
- (w) Included with "Tartrates, not elsewhere specified".
- (x) Not specified as excluding calcium cyanamide (nitrolim).
- (y) The production figure records collodion cotton on the basis of net undamped weight and the overseas trade figures relate to "collodion cotton, wet".
- (z) The overseas trade figure includes artificial horn and the like.
- (aa) Excluding the output of textile firms.
- (bb) Including butyrate.
- (cc) The 1937 figures exclude mineral blacks. The 1937 production figure also excludes blacks from natural gas.
- (dd) Including 19,000 cwts. unclassified earth colours, processed or powdered.
- (ee) Partly estimated.
- (ff) Including £1,293,000 unclassified flavouring essences and dyes for foods, etc.
- (gg) Excluding ground barytes produced at mines and quarries.



## Purchased materials and fuel

## Larger establishments

TABLE 13

	1948 (a)		1937 (b)		1935 (b)	
	Materials and fuel purchased		Usage of purchased materials and fuel			
	Quantity	Cost	Quantity	Cost	Quantity	Cost
	Th. proof galls.	£'000	Th. galls.	£'000	Th. galls.	£'000
Materials						
Alcohol						
Ethyl alcohol						
Duty paid	96	997				
Duty free, other than methylated spirits	22,077	2,912				
Th. bulk galls.			7,036	518 (c)	4,761	336 (c)
Methylated spirits (industrial or mineralised)	1,324	291				
Methyl alcohol	Th. proof galls. 17,523 ..	991 315				
Barytes	Th. tons 94.8	516	Th. tons 34.7	57	Th. tons 31.4	50
Benzoles, refined (in terms of motor benzole)	Th. galls. 4,873	433	Th. galls. 1,038	83 (d)	Th. galls. 584	44 (d)
Chromium ore	Th. tons 27.7	275	Th. tons 16.9	65	Th. tons 13.9	51
Coal tar, crude (on the basis of 5 per cent. water content), and crude tar oils	3.8	19	10.4	31 (e)	4.1	9 (e)
Iodine, crude	Th. lbs. 243	104	Th. lbs. 298	50	Th. lbs. 156	34
Lead	Th. tons 17.3	1,574	Th. tons 9.9	249	Th. tons 10.3	135
Phosphate rock (mineral phosphates of lime)	166.7	561	88.9	156	74.5	116
Pyrites	110.3	316	199.0	258	172.0	210
Spent oxide	153.2	321	124.8	157	111.9	141
Sulphur, crude	296.0	2,782	110.8	489	81.3	365
Tin	0.5	256	0.4	105	0.4	93
Toluoles, refined (in terms of 90's toluole)	Th. galls. 682	93	Th. galls. 152	17	Th. galls. 159	16
Zinc (spelter)	Th. tons 45.0	2,851	Th. tons 43.3	958	Th. tons 39.9	595

TABLE 13 (contd.)

	1948 (a)		1937 (b)		1935 (b)	
	Materials and fuel purchased		Usage of purchased materials and fuel			
	Quantity	Cost	Quantity	Cost	Quantity	Cost
	Th. lbs.	£'000	Th. lbs.	£'000	Th. lbs.	£'000
Materials (contd.)						
Essential oils	Th. lbs. 1,701	1,094	Th. lbs. 895	231	..	(f)
Packing materials	..	6,609	..	1,414	..	(f)
Acetone	Th. tons 5.8	446				
Bauxite	251.8	1,069				
Bismuth	Th. lbs. 324	178				
Bromine	Th. cwts. 5.4	40				
Chlorine	557.4	468				
Coal (other than for use as fuel)	Th. tons 521.7	1,412				
Coke (other than for use as fuel)	419.2	1,675				
Copper	2.6	310				
Creosote oils (including anthracene oil)	Th. galls. 38,630	1,236				
Cresols or cresylic acid	2,224	551				
Dye intermediates	Th. cwts. 25.1	478	..	(f)	..	(f)
Made from coal tar primary products	1.2	33				
Other	Th. tons 46.5	990				
Formaldehyde, including solutions (in terms of 40 per cent. solution)	Th. cwts.					
Crude	6.7	47				
Distilled	7.8	54				
Unclassified	12.9	75				
Hydrochloric acid (as at 1.14 s.g.)	Th. tons 15.0	117				
Lactose	Th. cwts. 0.5	4				
Limestone and lime	Th. tons 1,936.6	1,568				
Molasses	Th. cwts. 2,164.3	1,438				



TABLE 13 (contd.)

	1948 (a)		1937 (b)		1935 (b)	
	Materials and fuel purchased		Usage of purchased materials and fuel			
	Quantity	Cost	Quantity	Cost	Quantity	Cost
	Th. cwts.	£'000		£'000		£'000
Materials (contd.)						
Naphthalene, all grades (in terms of 86°C. salts)	174.5	113				
	Th. tons					
Nitric acid (on the basis of 100 per cent. acid)	27.6	539				
	Th. galls.					
Petroleum hydrocarbons, other than lubricating and fuel oils	4,613	323				
	Th. tons					
Potassium compounds	85.0	1,134				
Salt and brine (in terms of salt content)	2,958.2	980				
Sodium compounds						
Bicarbonate	5.6	44				
Carbonate, including soda crystals and soda ash (on the basis of 58°)	166.6	1,202				
Caustic soda (on the basis of 76°E)	75.9	980				
Sulphuric acid (on the basis of 100 per cent. acid)	216.7	1,423				
Zinc dust	5.2	438	..	(f)	..	(f)
Rennet casein	2.1	360				
Cellulose acetate flake	2.2	596				
	Th. cwts.					
Hexamine	27.6	196				
Carbolic acid, crude or crystal (g)	266.6	1,444				
Plasticisers						
Phthalate esters	52.7	555				
Other	42.5	387				
Phthalic anhydride	10.2	48				
Urea	159.1	263				
Thiourea	2.1	21				
Process papers	102.5	420				
	Th. tons					
Wood flour	11.7	201				

TABLE 13 (contd.)

	1948 (a)		1937 (b)		1935 (b)	
	Materials and fuel purchased		Usage of purchased materials and fuel			
	Quantity	Cost	Quantity	Cost	Quantity	Cost
	Th. cwts.	£'000		£'000		£'000
Materials (contd.)						
Plastic materials						
Synthetic resins, including polymers (in terms of gross weight)						
Vinyl	36.4	355				
Other	140.2	1,331				
Moulding and extrusion (including impregnated) materials						
Polyvinyl chloride, unplasticised	30.4	467				
Other	4.9	70				
Sheet, rod, tube, film, foil, blanks and profile shapes						
Acrylic	10.1	251				
Polyvinyl chloride, plasticised	0.7	9	..	11,654	..	12,651 (h)
	..	3				
Other	..	229				
Solutions, emulsions and dispersions (in terms of gross weight)	194.5	795				
	Th. sq. yds.					
Cotton piece-goods	4,007	348				
Water charges (g)	..	453				
All other purchased materials	..	47,967				
Unclassified materials	-	-	..	1,625	-	-
	Th. tons		Th. tons		Th. tons	
Fuel and electricity						
Coal	3,192.3	8,340	2,955	2,519	2,480.5	1,799
Coke	289.5	1,065	..	(f)	172.9	165
	Th. B. T. U. (kW. hrs.)		Th. B. T. U. (kW. hrs.)		Th. B. T. U. (kW. hrs.)	
Electricity purchased (1)						
From public supply	1,227,672	3,916				
From other sources	108,611	321	577,464	785	384,590	591
Electricity obtained from other works under the same ownership	401,322	807				



TABLE 13 (contd.)

	1948 (a)		1937 (b)		1935 (b)	
	Materials and fuel purchased		Usage of purchased materials and fuel			
	Quantity	Cost	Quantity	Cost	Quantity	Cost
Fuel and electricity (contd.)	Th. galls.	£'000	Th. galls.	£'000	Th. galls.	£'000
Motor spirit (petrol) and deriv. fuel						
Used for road vehicles	3,071	277	..	(f)	..	(f)
Used for other power purposes	814	36				
Other oil fuel (including creosote/pitch mixtures)	28,975	1,062	2,534	43	2,444	42
				(j)		(j)
Gas purchased from public supply	Th. therms 4,697 Th. cu. ft. 67,726 ..	176 17 42	..	(f)	..	(f)
Gas purchased from other sources and gas obtained from other works under the same ownership	Th. therms 1,673 Th. cu. ft. 1,959 ..	39 4 30				
All other purchased fuel	..	338	..	403	..	(f)
Total		115,914				
Less Customs and Excise rebate and drawback receivable in respect of alcohol		361		21,867		17,443
Total (exclusive of Customs and Excise rebate and drawback receivable in respect of alcohol)		115,552		21,867		17,443

- (a) Great Britain only.  
 (b) United Kingdom.  
 (c) Described as "Alcohol (on the basis of 100 per cent. ethyl alcohol)".  
 (d) Described as "Benzole, refined".  
 (e) Described as "Coal tar, crude".  
 (f) Not recorded separately.  
 (g) So far as recorded separately.  
 (h) Including fuel not specified separately.  
 (i) The total quantity of electricity consumed in 1948 was 2,676,470,000 B. T. units including 938,865,000 generated in the same works.

## Stocks of finished products and work in progress and stocks of materials and fuel, 1948

## Larger establishments in Great Britain

TABLE 14

	At beginning of year		At end of year	
	Quantity	Value	Quantity	Value
Finished products	Th. tons	£'000	Th. tons	£'000
Sulphuric acid (on the basis of 100 per cent. acid)	33.5	190	33.7	194
Sodium compounds	51.7	497	92.2	1,071
Zinc oxide	1.5	50	2.1	122
Other finished products	..	7,275	..	9,585
Work in progress		1,685		2,224
Total finished products and work in progress		9,698		13,196
Materials and fuel	Th. proof galls.		Th. proof galls.	
Alcohol (a)				
Ethyl alcohol	388 ..	119 19	388 ..	107 12
Methylated spirits (industrial or mineralised)	Th. bulk galls. 31	6	Th. bulk galls. 39	9
Methyl alcohol	Th. proof galls. 536	23	Th. proof galls. 479 ..	23 6
Zinc (spelter)	Th. tons 5.5	230	Th. tons 4.5	292
Plastic materials	Th. cwt. 7.7 ..	113 26	Th. cwt. 8.8 ..	118 15
Coal (a)	Th. tons 430.1	1,029	Th. tons 340.0	877
Other descriptions of materials and fuel	..	19,303	..	23,011
Total materials and fuel		20,866		24,471

- (a) So far as recorded separately.



## Employment and remuneration

## Larger establishments

## (i) Private Firms (a)

TABLE 15

	Average number of operatives			Administrative, technical and clerical employees (b)			Total		
	1948(c)	1937(d)	1935(d)	1948(c)	1937(d)	1935(d)	1948(c)	1937(d)	1935(d)
Males									
Under 18	1,786	2,115	1,558	675	404	287	2,461	2,519	1,845
All ages	63,203	38,332	34,982	17,501	7,293	6,613	80,704	45,625	41,595
Females									
Under 18	402	550	392	1,538	501	263	1,940	1,051	655
All ages	5,428	2,535	2,235	8,812	2,691	2,304	14,240	5,226	4,539
Total									
Under 18	2,188	2,665	1,950	2,213	905	550	4,401	3,570	2,500
All ages	68,631	40,867	37,217	26,313 (e)	9,984	8,917	94,944 (e) (f) (g)	50,851	46,134
Total remuneration	£'000 23,416	..	..	£'000 12,524	..	..	£'000 35,940	..	..

(a) Excluded employees. The following numbers were employed at private establishments in this trade but are not included in the table or in any other report (e.g., employees in a separate selling or transport organisation for which separate accounts are kept):-

Canteen workers	127 males	1,294 females
Other workers	2,044 males	350 females

(b) Number at September 25, 1948, October 16, 1937, and October 12, 1935.

(c) Great Britain only.

(d) United Kingdom.

(e) There were, in addition, 15 male working proprietors in 1948. Working proprietors are included in the 1937 and 1935 figures.

(f) The employers' share of contributions to all National Insurance Schemes payable during the year in respect of these workers amounted to £770,000.

(g) The following persons (included in this total) were employed on special work by establishments employing 100 or more persons:-

	Operatives	Administrative, technical and clerical employees
Transport of goods outside the premises	1,251	
Maintenance and repair of firms' buildings, but not plant	1,016	
Research work not directly connected with current production however charged	657	2,177

In addition to the employees in the above table the private firms in this trade employed 18 female outworkers in 1948, the amount paid to them being £2,000. Similar information is not available for 1937 and 1935.

## (ii) Government Departments (a)

TABLE 15 (contd.)

	Average number of operatives	Administrative, technical and clerical employees (b)	Total
	1948	1948	1948
Males			
Under 18	53	12	65
All ages	4,674	532	5,206
Females			
Under 18	12	14	26
All ages	161	211	372
Total			
Under 18	65	26	91
All ages	4,835	743	5,578 (c) (d)
Total remuneration	£'000 1,637	£'000 373	£'000 2,010

(a) Excluded employees. The following numbers were employed at Government establishments in this trade but are not included in the table or in any other report:-

Canteen workers	4 males	133 females
Other workers	151 males	3 females

(b) Number at September 25, 1948.

(c) The employers' share of contributions to all National Insurance Schemes payable during the year in respect of these workers amounted to £50,000.

(d) The following persons (included in this total) were employed on special work by establishments employing 100 or more persons:-

	Operatives	Administrative, technical and clerical employees
Transport of goods outside the premises	1	
Maintenance and repair of firms' buildings, but not plant	376	
Research work not directly connected with current production however charged	5	9

In addition to the employees in the above table the Government Departments in this trade employed 3 male outworkers in 1948, the amount paid to them being less than £500.



## Wages and salaries paid, 1948 (a)

## Larger establishments in Great Britain

TABLE 16

	Amount paid by all establishments	Establishments making returns for the calendar year					
		Amount paid	Percentage of annual remuneration paid in				
			First quarter	Second quarter	Third quarter	Fourth quarter	Year
Wages and salaries of	£'000	£'000					
Operatives	25,053	20,078	24.2	25.0	25.3	25.5	100.0
Administrative, technical and clerical employees	12,897	10,700	23.9	24.5	24.7	26.9	100.0
Total	37,950	30,779	24.1	24.9	25.1	26.0	100.0

(a) Including bonus and commission payments.

TABLE 17 - Payments for work done on materials given out, 1948

## Larger establishments in Great Britain

The total amount paid for work done on materials given out was £461,000.

## Payments for certain services, 1948

## Larger establishments in Great Britain

TABLE 18

	Amount paid
	£'000
Repair and maintenance	
Of buildings	358
Of plant, machinery and vehicles	1,250
Unclassified	1,068
Hire of plant, machinery and vehicles	467
Advertising and market research	
Advertising in newspapers, magazines and periodicals	220
Other advertising services (poster display, despatch of circulars, etc.) and market research	114
Unclassified	360
Payments made for research work	
To research associations	27
To universities, institutions, academic bodies and similar agencies	32
To other commercial concerns	165
Postage, telephone, telegrams and cables	468
Commercial insurance premiums	582
Rates (excluding water rates) payable in the year	267



## Plant, machinery and vehicles acquired and disposed of, 1948

## Larger establishments in Great Britain

TABLE 19

	Acquisitions		Disposals
	New	Second-hand	
Plant and machinery	£'000 10,878	£'000 2,540	£'000 867
Vehicles	908	255	117
Total	11,786	2,796	983

## Capital expenditure on building work and changes in occupation of buildings and land, 1948

## Larger establishments in Great Britain

TABLE 20

	£'000	£'000
1. Capital expenditure on building work (a)		2,417
2. Existing buildings and land (b)		
(1) Capital cost of freeholds bought	400	
Estimated capital value of		
(11) Rented property newly occupied in the year (c)	745	
(111) Leasehold buildings and land newly occupied in the year	528	
Total of heading 2		1,674
Total of headings 1 and 2		4,091
3. Existing buildings and land relinquished (d)		
(1) Selling value of freeholds sold	86	
(11) Estimated value of other properties relinquished	112	
Total of heading 3		198
4. Headings 1 and 2 less heading 3		3,893

- (a) Excluding site value which, where appropriate, is included in heading 2(1).  
 (b) The figures do not reflect changes in ownership of previously occupied land and buildings.  
 (c) Property which is occupied under an agreement for the payment of rent without the purchase of a lease or the payment of a premium.  
 (d) Including property destroyed or abandoned.

1948

## Summary

## Larger establishments

TABLE 21

	England	Wales	Scotland	Great Britain
	£'000	£'000	£'000	£'000
Gross output (production)	168,201	11,070	7,974	187,245
Cost of materials and fuel used	100,229	7,017	4,702	111,948
Payment for work done on materials given out	461	-	-	461
Net output	67,511	4,053	3,272	74,836
Wages and salaries of persons employed	33,724	2,273	1,953	37,950
Average number of persons employed (a)	No. 88,744	No. 6,071	No. 5,722	No. 100,537
Net output per person employed (a)	£ 761	£ 668	£ 572	£ 744
Stocks at end of year	£'000	£'000	£'000	£'000
Finished products and work in progress	11,986	672	539	13,196
Materials and fuel	21,583	1,224	1,664	24,471
Number of establishments	No. 440	No. 20	No. 50	No. 510

(a) Excluding outworkers.

The values of gross output and of materials and fuel used are derived in the following way:-

	England	Wales	Scotland	Great Britain
	£'000	£'000	£'000	£'000
Output of firms in this trade				
Total value of sales (see Table 23)	170,278	10,960	8,039	189,277
Adjustment for changes in stocks and work in progress	+ 3,237	+ 155	+ 107	+ 3,498
Less payment for transport by other firms	5,314	44	172	5,530
Gross output (production)	168,201	11,070	7,974	187,245
Materials and fuel used by firms in this trade				
Purchases (see Table 24) (a)	103,198	7,342	5,011	115,552
Adjustment for changes in stocks	- 2,969	- 325	- 310	- 3,604
Materials and fuel used	100,229	7,017	4,702	111,948

(a) Excluding Customs and Excise rebates and drawbacks receivable in respect of any materials on which duty was paid.



## Summary

## Small firms

TABLE 22

	England	Wales	Scotland	Great Britain
Number of returns	217	2	16	235
Average number of persons employed (a)				
Males	987	9	47	1,043
Females	319	-	18	337
Total	1,306	9	65	1,380

(a) Including working proprietors.

## Sales in the trade

## Larger establishments

TABLE 23

	England and Wales		Scotland		Great Britain	
	Quantity	Value	Quantity	Value	Quantity	Value
Principal products	Th. lbs.	£'000	Th. lbs.	£'000	Th. lbs.	£'000
Chemical manufactures						
Acids						
Salicylic, B.P. and equivalent grades	1,571	140	-	-	1,571	140
Sulphuric (in terms of 100 per cent. acid)	903.4	5,525	130.7	835	1,034.1	6,360
Other acids, not elsewhere specified, including hydrochloric, nitric and nicotinic	..	5,432	..	364	..	5,796
Alcohols and alcohol ethers, not elsewhere specified, except ethyl alcohol	..	3,441	-	-	..	3,441
Aluminium compounds						
Alum (soda alum, potash alum and ammonia alum)	8.2	150	-	-	8.2	150
Aluminium oxide						
Anhydrous, but not including abrasives					64.9	1,641
Hydrated					19.8	385
Other sorts, including aluminium sulphate, but excluding metallic driers, bauxite and abrasives such as alundum					..	1,686
Ammonia liquor (in terms of 880 Ammonia)	..	(a)	..	(a)	235.4	2,076
Ammonia compounds						
Carbonate and bicarbonate					5.0	228
Other sorts, except ammonium sulphate and ammonium phosphate					129.1	2,600
Barium compounds, excluding metallic driers, barytes, natural barium carbonate and pigments	24.4	536	-	-	24.4	536



TABLE 23 (contd.)

	England and Wales		Scotland		Great Britain	
	Quantity	Value	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000	Th. tons	£'000
Principal products (contd.)						
Chemical manufactures (contd.)						
Bleaching materials						
Sodium perborate	0.9	98	-	-	0.9	98
Other sorts	..	(a)	..	(a)	122.8	3,046
Proprietary bleaches	11.8	571	0.8	45	12.6	617
	..	98	..	85	..	183
	Th. cwts.				Th. cwts.	
Bromides, not elsewhere specified, excluding ethyl bromide	2.1	31	-	-	2.1	31
Carbons, decolorising and activated	..	(a)	..	(a)	154.3	506
	Th. tons				Th. tons	
Formaldehyde, including solutions (in terms of 40 per cent. solution), and paraformaldehyde	64.0	1,308	-	-	64.0	1,308
Gases compressed, including liquefied and solidified						
Carbon dioxide; sulphur dioxide; and acetylene, dissolved	..	(a)	..	(a)	..	2,878
Nitrous oxide	..	(a)	..	(a)	Mill.galls. 115.7	255
Hydrogen and oxygen	..	(a)	..	(a)	Mill.cu.ft. 3,750.6	3,576
Other sorts, including petroleum hydrocarbons (butane, isobutane and propane)	..	3,778	..	364	..	4,141
	Th. lbs.				Th. lbs.	
Iodides, not elsewhere specified, excluding ethyl iodide	34.3	27	-	-	34.3	27
Iodine	32.8	20	-	-	32.8	20
Lead compounds	Th. cwts.				Th. cwts.	
Lead oxides	245.8	1,263	-	-	245.8	1,263
Lead acetate	6.9	40	-	-	6.9	40
Other lead compounds, including white lead (basic carbonate, dry) but excluding pigments	372.3	3,115	-	-	372.3	3,115

TABLE 23 (contd.)

	England and Wales		Scotland		Great Britain	
	Quantity	Value	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000	Th. tons	£'000
Principal products (contd.)						
Chemical manufactures (contd.)						
Magnesium compounds, not elsewhere specified	..	(a)	..	(a)	54.4	1,052
Plasticisers						
Butyl phthalate	1.6	323	-	-	1.6	323
Tricresyl phosphate	2.6	511	-	-	2.6	511
Potassium compounds	Th. cwts.				Th. cwts.	
Iodide	1.6	102	-	-	1.6	102
Chloride (muriate)	1.5	5	-	-	1.5	5
Chromate					0.3	4
Other sorts, not elsewhere specified, including unrefined nitrate					446.0	1,185
Sodium compounds	..	(a)	..	(a)		
Chromate					6.3	25
Dichromate					192.3	725
Phosphates					469.5	1,608
	Th. tons		Th. tons		Th. tons	
Sulphate, including salt cake	75.1	482	15.9	130	91.0	612
Sulphide	..	(a)	..	(a)	31.7	668
Other	..	21,758	..	30	..	21,787
	Th. cwts.				Th. cwts.	
Synthetic organic chemicals for photographic purposes, not elsewhere specified	2.2	172	-	-	2.2	172
Synthetic organic chemicals for tanners' use, not elsewhere specified	86.2	172	-	-	86.2	172
Tartrates, not elsewhere specified, except cream of tartar	3.6	37	-	-	3.6	37
Wood distillation products (except acetic acid, acetic anhydride, acetone, aluminium acetate, calcium acetate, lead acetate and methyl alcohol)						
Charcoal, other than decolorising and activated carbons	..	(a)	..	(a)	6.3	160



TABLE 23 (contd.)

	England and Wales		Scotland		Great Britain	
	Quantity	Value	Quantity	Value	Quantity	Value
	Th. tons	£'000		£'000	Th. tons	£'000
Principal products (contd.)						
Chemical manufactures (contd.)						
Wood distillation products (except acetic acid, acetic anhydride, acetone, aluminium acetate, calcium acetate, lead acetate and methyl alcohol) (contd.)						
Other, including iron acetate liquor	..	(a)	..	(a)	..	129
Zinc oxide	57.6	4,108	-	-	57.6	4,108
	Th. cwts.				Th. cwts.	
Fine chemicals, not elsewhere specified						
Technical	92.4	834	-	-	92.4	834
Other, including analytical, reagents, research, and synthetic perfumery chemicals, but excluding medicinal	31.3	958	-	-	31.3	958
	..	2	-	-	..	2
Unclassified	..	389	-	-	..	389
Metallic organic compounds (naphthenates, linoleates, resinates, stearates and like compounds) not separately specified, excluding metallo-organic medicinal compounds	..	(a)	..	(a)	..	631
					Th. tons	
Copper sulphate; tin salts; and tin oxide	..	(a)	..	(a)	14.9	793
Bismuth salts and compounds, excluding pigments; cadmium compounds, including plating salts but not pigments; and molybdenum compounds	..	396	-	-	..	396
Calcium compounds					Th. cwts.	
Acetate	10.4	12	-	-	10.4	12
Carbide	92.3	2,264	-	-	92.3	2,264
Other sorts, not elsewhere specified, excluding calcium cyanamide (nitrolim)	..	(a)	..	(a)	288.6	1,681
	Th. cwts.				Th. cwts.	
Titanium dioxide	318.1	1,379	-	-	318.1	1,379
Metallic salts and compounds not elsewhere specified, excluding pigment colours	..	(a)	..	(a)	..	2,689

TABLE 23 (contd.)

	England and Wales		Scotland		Great Britain	
	Quantity	Value	Quantity	Value	Quantity	Value
	Th. cwts.	£'000		£'000	Th. cwts.	£'000
Principal products (contd.)						
Chemical manufactures (contd.)						
Nitro-cellulose (collodion cotton), not intended for explosives; chloroform; ethyl acetate; ethyl chloride; and carbon disulphide	..	2,324	..	186	..	2,510
Phosphorus	32.4	230	-	-	32.4	230
Rubber accelerators, not elsewhere specified; and rubber substitute (factice)	..	925	-	-	..	925
Other chemical manufactures, including cream of tartar, and plasticisers other than butyl phthalate and tricresyl phosphate	..	16,440	..	680	..	17,120
Unclassified chemical manufactures	..	190	..	24	..	214
Total chemical manufactures		(a)		(a)		112,558
Plastic materials						
Liquid and solid resins, solutions, emulsions and dispersions, including polymers and co-polymers	..	(a)	..	(a)	1,022.0	7,219
Sheet, rod, tube, film, foil and profile shapes						
Casein	39.1	990	-	-	39.1	990
Cellulose acetate	..	(a)	..	(a)	15.4	570
Phenolics and cresylics (laminated only)	155.4	2,746	-	-	155.4	2,746
Vinyl chlorides	..	(a)	..	(a)	58.0	1,499
Other	..	(a)	..	(a)	162.9	5,283
Moulding and extrusion materials						
Cellulose acetate	..	(a)	..	(a)	48.9	992
Other	..	(a)	..	(a)	758.7	6,519
Total plastic materials		(a)		(a)		25,818
Other chemical products	Th. tons		Th. tons		Th. tons	
Manufactured bituminous products						
Bituminous emulsions, except emulsions for use as paint	34.8 Th. galls. 72	451 4	11.0 Th. galls. 20	142 1	45.8 Th. galls. 91	593 5



TABLE 23 (contd.)

	England and Wales		Scotland		Great Britain	
	Quantity	Value	Quantity	Value	Quantity	Value
	Th. tons	£'000	Th. tons	£'000	Th. tons	£'000
Principal products (contd.)						
Other chemical products (contd.)						
Manufactured bituminous products (contd.)						
Other bituminous compounds, except paint and manufactured mastic asphalt	16.8	277	7.3	85	24.1	362
	..	51	..	29	..	80
	Th. cwts.				Th. cwts.	
Boiler compositions and disincrustants	..	(a)	..	(a)	161.6	503
Brewers' finings, etc.	..	(a)	..	(a)	..	186
Ceramic colours and enamels, not elsewhere specified; and ceramic glaze	157.0	945	-	-	157.0	945
Earth colours, processed or powdered						
Ochres	113.3	129	-	-	113.3	129
Red oxides of iron	..	(a)	..	(a)	443.6	419
Other earth colours, except black	196.5	243	-	-	196.5	243
	Th. lbs.				Th. lbs.	
Essential oils, other than turpentine	805.3	622	-	-	805.3	622
	..	86	..	..	..	86
Flavouring compounds; and flavouring essences and dyes for foods, etc.	..	(a)	..	(a)	..	3,576
	Th. cwts.				Th. cwts.	
Iron oxides, chemically manufactured	1,513.1	990	-	-	1,513.1	990
Inorganic pigment colours (pure or reduced), dry and in pulp form, not elsewhere specified						
Iron blues	26.9	325	-	-	26.9	325
Chromium compounds, including lead greens and zinc greens	145.5	1,398	-	-	145.5	1,398
Other	..	(a)	..	(a)	215.7	1,073
Synthetic organic pigments (pure or reduced)						
Pigment dyestuffs	..	(a)	..	(a)	22.4	643
Lakes and toners	..	(a)	..	(a)	89.2	1,049
	Th. tons				Th. tons	
Lithopone, dry	52.1	1,714	-	-	52.1	1,714

TABLE 23 (contd.)

	England and Wales		Scotland		Great Britain	
	Quantity	Value	Quantity	Value	Quantity	Value
	Th. cwts.	£'000	Th. cwts.	£'000	Th. cwts.	£'000
Principal products (contd.)						
Other chemical products (contd.)						
Rosin size (for use in the paper trade)	180.1	307	-	-	180.1	307
Sulphur	464.5	379	6.5	3	471.0	382
	Th. tons				Th. tons	
Sulphonated oils, other than sulphonated alcohols	7.8	730	-	-	7.8	730
	Th. cwts.				Th. cwts.	
Vitreous enamels and frits	206.6	753	-	-	206.6	753
	..	78	..	..	..	78
Blacks, mineral and carbon, including vegetable, lamp, acetylene and bone black; and finishing materials for the textile trades, other than oils, (including gum, starch, etc.) not elsewhere specified	..	471	-	-	..	471
	Th. tons				Th. tons	
Purple iron ore	4.1	8	-	-	4.1	8
Ground barytes	..	(a)	..	(a)	6.2	51
Mastic and other adhesive cements; and pitch, other than coal tar pitch	..	50	-	-	..	50
Other chemical products, including case hardening compounds	..	1,014	-	-	..	1,014
Waste products	..	153	..	9	..	162
Work done for the trade or on commission (b)		1,534		34		1,568
Total principal products		151,142		7,751		158,893
Other output						
Coal tar and coal tar products	..	(a)	..	(a)	..	1,184
	Th. lbs.				Th. lbs.	
Drugs and pharmaceutical chemicals	6,577	1,505	-	-	6,577	1,505
	..	150	..	..	..	150
Pharmaceutical preparations	..	216	-	-	..	216
	Th. cwts.				Th. cwts.	
Dyes and dyestuffs	293.6	1,115	-	-	293.6	1,115
Perfumery, cosmetics and toilet preparations	..	324	-	-	..	324
Fertilisers	..	(a)	..	(a)	746.2	9,148



TABLE 23 (contd.)

	England and Wales		Scotland		Great Britain	
	Quantity	Value	Quantity	Value	Quantity	Value
	Th.cwts.	£'000		£'000	Th.cwts.	£'000
Other output (contd.)						
Disinfectants, antiseptics, and sheep and cattle dips and dressings	..	(a)	..	(a)	21.9	183
Insecticides and weed killers	189.4 ..	1,015 732	-	-	189.4 ..	1,015 732
Bituminous paints and bituminous solutions and emulsions for use as paint	..	(a)	..	(a)	Th.galls. 1,018 Th.tons 0.5	88 33
Paints, pigments and extenders in paste form	149.7	743	-	-	149.7	743
Paints and painters' enamels, ready mixed	..	33	-	-	..	33
Varnishes and lacquers, not pigmented	..	41	-	-	..	41
Other products of the Paint and Varnish Trade	..	338	-	-	..	338
Plastic goods and accessories, except garments	..	603	-	-	..	603
Powders and essences for beverages (excluding fruit juices, solid soft drinks, and coffee and chicory essences and extracts)	..	(a)	..	(a)	7.6	424
Soft drinks	Th.galls. 190 ..	84 125	-	-	Th.galls. 190 ..	84 125
Plant and machinery, including parts	..	758	-	-	..	758
Manufactures of rubber, except garments	..	508	-	-	..	508
Washing and scouring materials, other than soap	Th.cwts. 221.3	601	Th.cwts. 2.0	3	Th.cwts. 223.3	604
Ink, stains, dyes and gums for the leather and allied trades	..	241	-	-	..	241
Concentrates, metallic residues, wastes, etc.	Th.tons 13.5 ..	94 44	-	-	Th.tons 13.5 ..	94 44
Other goods and electricity, steam, gas and water sold	..	9,789	..	185	..	9,974
Work done (b)		76		-		76
Total		181,238		8,039		189,277

(a) Owing to the risk of disclosure of information relating to individual firms separate figures cannot be given.  
(b) Amount charged.

Purchased materials and fuel  
Larger establishments

TABLE 24

	England and Wales		Scotland		Great Britain	
	Quantity	Cost	Quantity	Cost	Quantity	Cost
	Th.proof galls.	£'000		£'000	Th.proof galls.	£'000
Materials						
Alcohol						
Ethyl alcohol						
Duty paid	96	997	-	-	96	997
Duty free, other than methylated spirits	22,077	2,912	-	-	22,077	2,912
Methylated spirits (industrial or mineralised)	..	(a)	..	(a)	Th.bulk galls. 1,321	291
Methyl alcohol	..	(a)	..	(a)	Th.proof galls. 17,523 ..	991 315
Barytes	..	(a)	..	(a)	Th.tons 94.8	516
Benzoles, refined (in terms of motor benzole)	Th.galls. 4,873	433	-	-	Th.galls. 4,873	433
Chromium ore	..	(a)	..	(a)	Th.tons 27.7	275
Coal tar, crude (on the basis of 5 per cent. water content), and crude tar oils	..	(a)	..	(a)	Th.tons 3.8	19
Iodine, crude	Th.lbs. 243	104	-	-	Th.lbs. 243	104
Lead	Th.tons 17.0	1,542	Th.tons 0.3	32	Th.tons 17.3	1,574
Phosphate rock (mineral phosphates of lime)	..	(a)	..	(a)	166.7	561
Pyrites	77.0	208	33.3	108	110.3	316
Spent oxide	..	(a)	..	(a)	153.2	321
Sulphur, crude	288.3	2,523	27.7	259	296.0	2,782
Tin	..	(a)	..	(a)	0.5	256
Toluoles, refined (in terms of 90's toluole)	Th.galls. 682	93	-	-	Th.galls. 682	93
Zinc (spelter)	Th.tons 45.0	2,851	-	-	Th.tons 45.0	2,851
Essential oils	Th.lbs. 1,701	1,094	-	-	Th.lbs. 1,701	1,094
Packing materials	..	6,367	..	242	..	6,609



TABLE 24 (contd.)

	England and Wales		Scotland		Great Britain	
	Quantity	Cost	Quantity	Cost	Quantity	Cost
	Th. tons	£'000	Th. tons	£'000	Th. tons	£'000
Materials (contd.)						
Acetone	5.7	435	0.2	11	5.8	446
Bauxite	..	(a)	..	(a)	251.8	1,069
	Th. lbs.				Th. lbs.	
Bismuth	324	178	-	-	324	178
	Th. cwts.				Th. cwts.	
Bromine	5.4	40	-	-	5.4	40
Chlorine	..	(a)	..	(a)	557.4	468
	Th. tons				Th. tons	
Coal (other than for use as fuel)	521.7	1,412	-	-	521.7	1,412
Coke (other than for use as fuel)	..	(a)	..	(a)	419.2	1,675
Copper	2.6	310	-	-	2.6	310
	Th. galls.		Th. galls.		Th. galls.	
Creosote oils (including anthracene oil)	38,434	1,229	196	7	38,630	1,236
Cresols or cresylic acid	..	(a)	..	(a)	2,224	551
Dye intermediates						
	Th. cwts.				Th. cwts.	
Made from coal tar primary products	..	(a)	..	(a)	25.1	478
Other	1.2	33	-	-	1.2	33
Formaldehyde, including solutions (in terms of 40 per cent. solution)	..	(a)	..	(a)	46.5	990
Glycerine					Th. cwts.	
Crude	6.7	47	-	-	6.7	47
Distilled	7.8	54	-	-	7.8	54
Unclassified	12.9	75	-	-	12.9	75
	Th. tons		Th. tons		Th. tons	
Hydrochloric acid (as at 1.14 s.g.)	13.8	104	1.3	13	15.0	117
	Th. cwts.				Th. cwts.	
Lactose	0.5	4	-	-	0.5	4
	Th. tons				Th. tons	
Limestone and lime	1,899.5	1,516	37.0	52	1,936.6	1,568
	Th. cwts.				Th. cwts.	
Molasses	2,164.3	1,438	-	-	2,164.3	1,438
Naphthalene, all grades (in terms of 86°C. salts)	..	(a)	..	(a)	174.5	113
					Th. tons	
Nitric acid (on the basis of 100 per cent. acid)	..	(a)	..	(a)	27.6	539
Petroleum hydrocarbons, other than lubricating and fuel oils	..	(a)	..	(a)	4,613	323
					Th. galls.	

TABLE 24 (contd.)

	England and Wales		Scotland		Great Britain	
	Quantity	Cost	Quantity	Cost	Quantity	Cost
	Th. tons	£'000	Th. tons	£'000	Th. tons	£'000
Materials (contd.)						
Potassium compounds	..	(a)	..	(a)	85.0	1,134
Salt and brine (in terms of salt content)	..	(a)	..	(a)	2,958.2	980
Sodium compounds						
Bicarbonate	5.5	43	0.1	2	5.6	44
Carbonate, including soda crystals and soda ash (on the basis of 58°)	150.8	1,076	15.8	126	166.6	1,202
Caustic soda (on the basis of 76°E.)	72.7	925	3.2	55	75.9	980
Sulphuric acid (on the basis of 100 per cent. acid)	206.1	1,356	10.7	67	216.7	1,423
Zinc dust	5.2	438	-	-	5.2	438
Rennet casein	2.1	360	-	-	2.1	360
Cellulose acetate flake	..	(a)	..	(a)	2.2	596
	Th. cwts.				Th. cwts.	
Hexamine	27.6	196	-	-	27.6	196
Carbolic acid, crude or crystal	266.6	1,444	-	-	266.6	1,444
Plasticisers						
Phthalate esters	..	(a)	..	(a)	52.7	555
Other	..	(a)	..	(a)	42.5	387
Phthalic anhydride	10.2	48	-	-	10.2	48
Urea	159.1	263	-	-	159.1	263
Thiourea	2.1	21	-	-	2.1	21
Process papers	102.5	420	-	-	102.5	420
	Th. tons				Th. tons	
Wood flour	11.7	201	-	-	11.7	201
	Th. cwts.				Th. cwts.	
Plastic materials						
Synthetic resins, including polymers (in terms of gross weight)						
Vinyl	..	(a)	..	(a)	36.4	355
Other	140.2	1,331	-	-	140.2	1,331
Moulding and extrusion (including impregnated) materials						
Polyvinyl chloride, unplasticised	30.4	467	-	-	30.4	467
Other	..	(a)	..	(a)	4.9	70



TABLE 24 (contd.)

	England and Wales		Scotland		Great Britain	
	Quantity	Cost	Quantity	Cost	Quantity	Cost
	Th. cwts.	£'000		£'000	Th. cwts.	£'000
Materials (contd.)						
Plastic materials (contd.)						
Sheet, rod, tube, film, foil, blanks and profile shapes						
Acrylic	10.1	251	-	-	10.1	251
Polyvinyl chloride, plasticised	0.7	9	-	-	0.7	9
Other	..	229	-	-	..	229
Solutions, emulsions and dispersions (in terms of gross weight)	194.5	795	-	-	194.5	795
Cotton piece-goods	..	(a)	..	(a)	Th. sq. yds. 4,007	348
Water charges	..	431	..	22	..	453
All other purchased materials	..	46,578	..	1,390	..	47,967
Fuel and electricity	Th. tons		Th. tons		Th. tons	
Coal	3,021.3	7,898	171.0	442	3,192.3	8,340
Coke	282.4	1,040	7.1	25	289.5	1,065
Electricity purchased (b)	Th. B. T. U. (kW. hrs.)		Th. B. T. U. (kW. hrs.)		Th. B. T. U. (kW. hrs.)	
From public supply	1,098,661	3,528	129,011	388	1,227,672	3,916
From other sources	..	(a)	..	(a)	108,611	321
Electricity obtained from other works under the same ownership	401,322	807	-	-	401,322	807
Motor spirit (petrol) and derv. fuel	Th. galls.		Th. galls.		Th. galls.	
Used for road vehicles	2,698	244	373	33	3,071	277
Used for other power purposes	..	(a)	..	(a)	814	36
Other oil fuel (including creosote/ditch mixtures)	..	(a)	..	(a)	28,975	1,062
Gas purchased from public supply	..	(a)	..	(a)	Th. therms 4,697 67,726 ..	176 17 42
Gas purchased from other sources and gas obtained from other works under the same ownership	Th. therms 1,673 Th. cu. ft. 1,959 ..	39 4 30	- - ..	- - ..	Th. therms 1,673 Th. cu. ft. 1,959 ..	39 4 30
All other purchased fuel	..	328	..	10	..	338
Total		110,902		5,011		115,914
Less Customs and Excise rebate and drawback receivable in respect of alcohol		361		-		361
Total (exclusive of Customs and Excise rebate and drawback receivable in respect of alcohol)		110,541		5,011		115,552

- (a) Owing to the risk of disclosure of information relating to individual firms separate figures cannot be given.  
 (b) The quantity of electricity generated and consumed in the same works in England and Wales was 920,320,000 B.T. units; and in Scotland 18,544,000 B.T. units.

Employment and remuneration  
 Larger establishments  
 (i) Private firms

TABLE 25

	England and Wales			Scotland			Great Britain		
	Average number of operatives	Administrative, technical and clerical employees (a)	Total	Average number of operatives	Administrative, technical and clerical employees (a)	Total	Average number of operatives	Administrative, technical and clerical employees (a)	Total
Males									
Under 18	1,721	650	2,371	65	25	90	1,786	675	2,461
All ages	60,590	16,890	77,480	2,613	611	3,224	63,203	17,501	80,704
Females									
Under 18	384	1,464	1,848	18	74	92	402	1,538	1,940
All ages	5,200	8,439	13,639	228	373	601	5,428	8,812	14,240
Total									
Under 18	2,105	2,114	4,219	83	99	182	2,188	2,213	4,401
All ages	65,790	25,329 (b)	91,119 (b) (c)	2,841	984 (b)	3,825 (b) (c)	68,631	26,313 (b)	94,944 (b) (c)
Total remuneration	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000
	22,523	12,143	34,666	893	381	1,274	23,416	12,524	35,940

- (a) Number at September 25, 1948.  
 (b) There were, in addition, 15 male working proprietors in Great Britain; 14 in England and Wales, and 1 in Scotland.  
 (c) The employers' share of contributions to all National Insurance Schemes payable during the year in respect of these workers amounted to a total of £770,000; £740,000 for England and Wales, and £30,000 for Scotland.

In addition to the employees in the above table the private firms in this trade employed 18 female outworkers, (all in England and Wales), the amount paid to them being £2,000.

## (ii) Government Departments

TABLE 25 (contd.)

	England and Wales			Scotland			Great Britain		
	Average number of operatives	Administrative, technical and clerical employees (a)	Total	Average number of operatives	Administrative, technical and clerical employees (a)	Total	Average number of operatives	Administrative, technical and clerical employees (a)	Total
Males									
Under 18	45	11	56	8	1	9	53	12	65
All ages	3,032	466	3,498	1,642	66	1,708	4,674	532	5,206
Females									
Under 18	10	9	19	2	5	7	12	14	26
All ages	120	8	128	41	203	244	161	211	372
Total									
Under 18	55	20	75	10	6	16	65	26	91
All ages	3,152	474	3,626 (b)	1,683	269	1,952 (b)	4,835	743	5,578 (b)
Total remuneration	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000	£'000
	1,099	232	1,331	539	141	679	1,637	373	2,010

- (a) Number at September 25, 1948.  
 (b) The employers' share of contributions to all National Insurance Schemes payable during the year in respect of these workers amounted to a total of £50,000; £32,000 for England and Wales, and £18,000 for Scotland.

In addition to the employees in the above table the Government Departments in this trade employed 3 male outworkers (all in Scotland), the amount paid to them being less than £500.



Monthly index of employment of operatives: Larger establishments  
(average employment in 1948 - 100)

TABLE 26

Month	Monthly index (a)			Month	Monthly index (a)		
	England and Wales	Scotland	Great Britain		England and Wales	Scotland	Great Britain
1948				1948			
January	99.3	97.5	99.2	August	99.9	99.5	99.9
February	100.0	99.6	100.0	September	99.7	99.4	99.7
March	100.8	100.2	100.8	October	99.7	99.2	99.7
April	100.8	101.2	100.9	November	99.8	100.1	99.8
May	101.5	100.7	101.5	December	99.3	102.3	99.5
June	99.7	100.1	99.7	Percentage employment in this trade covered by the index	81.0	64.9	80.0
July	99.4	100.1	99.4				

(a) The index numbers are calculated from the number of operatives employed in one week in each month returned by larger establishments that made returns for the calendar year 1948.

In addition to the figures in the above table the private firms in this trade employ 1,232,000 operatives in England and Wales, the amount paid to them being £2,000,000,000.

Government departments

TABLE 26 (cont.)

Month	England and Wales			Scotland			Great Britain		
	Total	Average number of operatives	Index	Total	Average number of operatives	Index	Total	Average number of operatives	Index
1948									
January	1,232,000	1,232,000	99.3	1,232,000	1,232,000	97.5	2,464,000	1,232,000	99.2
February	1,232,000	1,232,000	100.0	1,232,000	1,232,000	99.6	2,464,000	1,232,000	100.0
March	1,232,000	1,232,000	100.8	1,232,000	1,232,000	100.2	2,464,000	1,232,000	100.8
April	1,232,000	1,232,000	100.8	1,232,000	1,232,000	101.2	2,464,000	1,232,000	100.9
May	1,232,000	1,232,000	101.5	1,232,000	1,232,000	100.7	2,464,000	1,232,000	101.5
June	1,232,000	1,232,000	99.7	1,232,000	1,232,000	100.1	2,464,000	1,232,000	99.7
July	1,232,000	1,232,000	99.4	1,232,000	1,232,000	100.1	2,464,000	1,232,000	99.4
August	1,232,000	1,232,000	99.9	1,232,000	1,232,000	99.5	2,464,000	1,232,000	99.9
September	1,232,000	1,232,000	99.7	1,232,000	1,232,000	99.4	2,464,000	1,232,000	99.7
October	1,232,000	1,232,000	99.7	1,232,000	1,232,000	99.2	2,464,000	1,232,000	99.7
November	1,232,000	1,232,000	99.8	1,232,000	1,232,000	100.1	2,464,000	1,232,000	99.8
December	1,232,000	1,232,000	99.3	1,232,000	1,232,000	102.3	2,464,000	1,232,000	99.5

(a) The number of operatives employed in one week in each month returned by larger establishments that made returns for the calendar year 1948. (b) The average number of operatives employed in one week in each month returned by larger establishments that made returns for the calendar year 1948. (c) The index numbers are calculated from the number of operatives employed in one week in each month returned by larger establishments that made returns for the calendar year 1948.



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