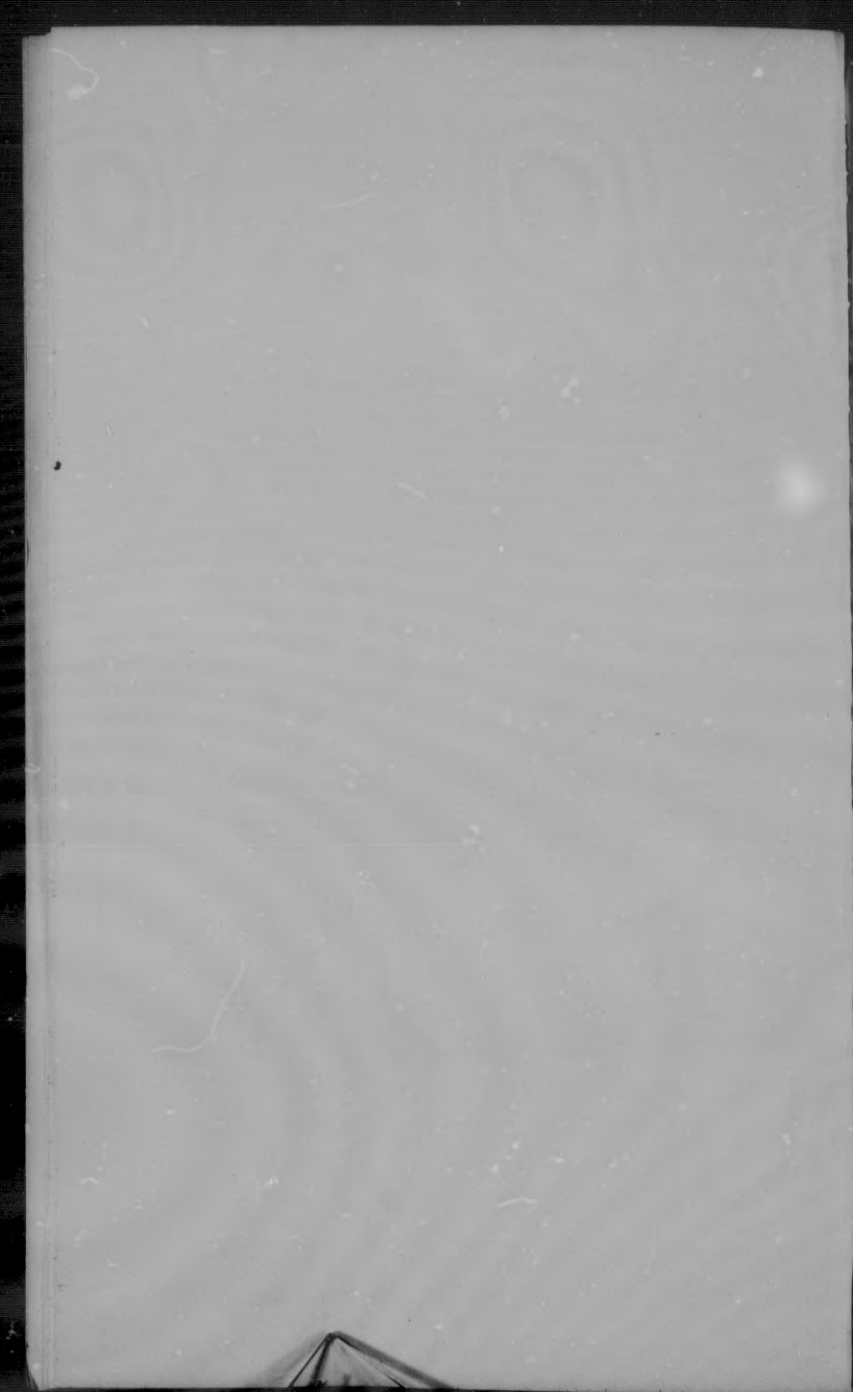


**MANUFACTURING INDUSTRIES  
1964-65**

**No. 33**

**PLASTIC MOULDING AND PRODUCTS**



COMMONWEALTH BUREAU OF CENSUS AND STATISTICS

CANBERRA, AUSTRALIA

MANUFACTURING INDUSTRIES, 1964-65

NO.33. PLASTIC MOULDING AND PRODUCTS

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## EXPLANATORY NOTES

GENERAL. The range of bulletins in this series for 1964-65 is the same as for 1963-64. A complete list of the series is shown inside the back cover. Where a number of industries are combined in one bulletin, the introductory paragraph on page 3 specifies the industries so included.

Statistics of the number of factories, persons employed, salaries and wages, value of fuel, materials, production and output etc. for 1964-65 include details for the Northern Territory and Australian Capital Territory. Prior to 1964-65 details for the Territories were excluded. Statistics of materials used and articles produced do not include details for the Territories.

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

Each of the summaries in the Manufacturing Industries series relates, in general, to the operations of factories classified to the industry specified. However, the statistics of articles produced represent total recorded production in all factories, irrespective of industry classification.

BASIS OF THE STATISTICS. The scope of the factory statistics is fully explained in the annual bulletin Manufacturing Industry, which contains comprehensive statistics both for all factory sub-classes separately and in total. (This bulletin was previously known as Secondary Industries Bulletin, Part I.)

Briefly, a "factory" is defined as an establishment in which four or more persons are employed or where power (other than manual) is used in any manufacturing process. The figures do not include details relating to small establishments not classified for statistical purposes as factories.

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

The value of materials, etc. used includes the value, in the usual sense, of the materials used, stores used, containers, tools replaced and materials used in repairs to plant. In general, it does not include the value of customers' articles or materials repaired, assembled or treated by the factory.

The value of power, fuel, light, etc. used includes the cost of lubricants and water.

The value of factory output is the value of the goods manufactured or their value after passing through the particular process of manufacture and includes the amount received for repair work, work done on commission and receipts for other factory work. The basis of valuation of the output is the selling value of the goods at the factory, exclusive of all delivery costs and charges and excise duties, but inclusive of bounty and subsidy payments to the manufacturer of the finished article.

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

There are many miscellaneous expenses, such as maintenance of buildings, etc., depreciation, workers' compensation insurance, other insurances, pay-roll tax, income tax, advertising, interest on borrowed money, bad debts and many other sundry charges, which are not taken into account. Consequently it must not be inferred that, when wages and salaries are deducted from value of production, the whole of the surplus is available for profits.

ROUNDING OF FIGURES. Any discrepancies between totals and sums of components are due to rounding.

This bulletin refers, in general, to factories which are classified to sub-class 1503 (Plastic Moulding and Products) of the Factory Classification (1945).

**TABLE 1. - PLASTIC MOULDING AND PRODUCTS FACTORIES : SUMMARY**

| AUSTRALIA |                  |                              |                                         |                                              |                                               |                                  |                              |
|-----------|------------------|------------------------------|-----------------------------------------|----------------------------------------------|-----------------------------------------------|----------------------------------|------------------------------|
| Year      | Factories<br>(1) | Number<br>Employed<br>(a)(2) | Salaries<br>and Wages<br>Paid<br>(b)(3) | Power, Fuel,<br>Light<br>etc. Used<br>(c)(4) | Value of<br>Materials,<br>etc. Used<br>(d)(5) | Value of<br>Production<br>(e)(6) | Value of<br>Output<br>(f)(7) |
| 1960-61   | 398              | 10,658                       | \$'000 21,507                           | \$'000 1,800                                 | \$'000 49,226                                 | \$'000 40,789                    | \$'000 91,816                |
| 1961-62   | 421              | 10,496                       | 21,302                                  | 1,932                                        | 48,520                                        | 41,834                           | 92,287                       |
| 1962-63   | 430              | 11,301                       | 25,083                                  | 2,257                                        | 57,598                                        | 48,499                           | 108,354                      |
| 1963-64   | 440              | 12,668                       | 27,905                                  | 2,930                                        | 63,489                                        | 57,641                           | 123,660                      |
| 1964-65   | 485              | 14,157                       | 33,770                                  | 2,985                                        | 75,722                                        | 66,818                           | 145,526                      |

(a) Average over whole year; includes Working Proprietors. (b) Excludes amounts drawn by Working Proprietors. (c) Includes Water and Lubricating Oils. (d) Includes also Value of Containers, Packing, etc., Replacement of Tools and Repairs to Plant. (e) Value of Production equals column (7) less total of columns (4) and (5). (f) Value at the Factory of Goods Produced.

**TABLE 2. - PLASTIC MOULDING AND PRODUCTS FACTORIES : SUMMARY**  
STATES, 1964-65

| Particulars                                | N.S.W. | VIC.   | QLD.  | S.A.  | W.A.  | TAS. | N.T. | A.C.T. | AUST.   |
|--------------------------------------------|--------|--------|-------|-------|-------|------|------|--------|---------|
| Factories                                  | 228    | 178    | 21    | 29    | 26    | 3    | ..   | ..     | 485     |
| Number employed - (a)                      |        |        |       |       |       |      |      |        |         |
| Males                                      | 3,401  | 4,237  | 187   | 315   | 160   | 8    | ..   | ..     | 8,308   |
| Females                                    | 2,624  | 2,822  | 56    | 265   | 81    | 1    | ..   | ..     | 5,849   |
| <b>TOTAL</b>                               | 6,025  | 7,059  | 243   | 580   | 241   | 9    | ..   | ..     | 14,157  |
| Salaries and Wages Paid (b)                | 13,895 | 17,763 | 465   | 1,224 | 414   | 9    | ..   | ..     | 33,770  |
| Value of -                                 |        |        |       |       |       |      |      |        |         |
| Power, Fuel, Light,<br>etc. Used (c)       | 1,222  | 1,568  | 28    | 127   | 40    | ..   | ..   | ..     | 2,985   |
| Materials, etc. Used (d)                   | 28,731 | 42,127 | 948   | 2,747 | 1,150 | 21   | ..   | ..     | 75,724  |
| Production (e)                             | 26,377 | 35,921 | 866   | 2,787 | 853   | 14   | ..   | ..     | 66,818  |
| Output (f)                                 | 56,329 | 79,615 | 1,842 | 5,661 | 2,043 | 35   | ..   | ..     | 145,526 |
| Land and Buildings (g)                     | 12,806 | 14,859 | 651   | 1,066 | 542   | 30   | ..   | ..     | 29,954  |
| Plant and Machinery (g)                    | 13,745 | 16,961 | 839   | 780   | 513   | 4    | ..   | ..     | 32,843  |
| Rated H.P. of Engines<br>ordinarily in use | 25,751 | 36,778 | 1,247 | 2,141 | 988   | 13   | ..   | ..     | 66,918  |

For footnotes (a) to (f), see Table 1 above. (g) Depreciated or book values at end of year.

**TABLE 3. - PLASTIC MOULDING AND PRODUCTS FACTORIES**  
**AVERAGE SALARIES AND WAGES, PRODUCTION, OUTPUT, ETC. PER EMPLOYEE**

| AUSTRALIA |                                              |                                                 |                                                     |                                                                      |
|-----------|----------------------------------------------|-------------------------------------------------|-----------------------------------------------------|----------------------------------------------------------------------|
| Year      | Salaries and<br>Wages per<br>Employee<br>(a) | Value of Output<br>per person<br>Engaged<br>(b) | Value of<br>Production per<br>Person Engaged<br>(b) | Ratio of<br>Salaries and<br>Wages to Value<br>of Production<br>(a/b) |
| 1960-61   | 2,052                                        | 8,614                                           | 3,828                                               | 52.53                                                                |
| 1961-62   | 2,062                                        | 8,792                                           | 3,986                                               | 50.92                                                                |
| 1962-63   | 2,154                                        | 9,182                                           | 4,110                                               | 51.72                                                                |
| 1963-64   | 2,232                                        | 9,762                                           | 4,550                                               | 48.41                                                                |
| 1964-65   | 2,414                                        | 10,279                                          | 4,720                                               | 50.54                                                                |

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

TABLE 4. - PLASTIC MOULDING AND PRODUCTS FACTORIES ACCORDING TO NUMBER

## EMPLOYED (a) : AUSTRALIA

| No. Employed<br>in each<br>Factory        | 1960-61                  |                         | 1961-62                  |                         | 1962-63                  |                         | 1963-64                  |                         | 1964-65                  |                         |
|-------------------------------------------|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|
|                                           | No. of<br>Fac-<br>tories | No. of<br>Em-<br>ployed | No. of<br>Fac-<br>tories | No. of<br>Em-<br>ployed | No. of<br>Fac-<br>tories | No. of<br>Em-<br>ployed | No. of<br>Fac-<br>tories | No. of<br>Em-<br>ployed | No. of<br>Fac-<br>tories | No. of<br>Em-<br>ployed |
| Under 4                                   | 98                       | 215                     | 97                       | 207                     | 101                      | 225                     | 101                      | 207                     | 106                      | 216                     |
| 4                                         | 22                       | 88                      | 33                       | 132                     | 23                       | 92                      | 26                       | 104                     | 32                       | 126                     |
| 5 to 10                                   | 111                      | 773                     | 109                      | 768                     | 113                      | 786                     | 112                      | 813                     | 129                      | 920                     |
| 11 to 20                                  | 59                       | 896                     | 68                       | 952                     | 74                       | 1,116                   | 76                       | 1,182                   | 77                       | 1,126                   |
| 21 to 50                                  | 64                       | 1,945                   | 71                       | 2,221                   | 66                       | 2,050                   | 64                       | 2,001                   | 76                       | 2,373                   |
| 51 to 100                                 | 19                       | 1,357                   | 21                       | 1,595                   | 27                       | 1,924                   | 33                       | 2,305                   | 33                       | 2,291                   |
| 101 to 200                                | 15                       | 2,128                   | 15                       | 2,209                   | 15                       | 2,006                   | 16                       | 2,189                   | 19                       | 2,636                   |
| 201 and over                              | 10                       | 3,281                   | 7                        | 2,470                   | 11                       | 3,636                   | 12                       | 3,927                   | 13                       | 4,532                   |
| <b>TOTAL</b>                              | <b>398</b>               | <b>10,683</b>           | <b>421</b>               | <b>10,554</b>           | <b>430</b>               | <b>11,835</b>           | <b>440</b>               | <b>12,728</b>           | <b>485</b>               | <b>14,222</b>           |
| Average Number<br>Employed per<br>Factory | 27                       |                         | 25                       |                         | 28                       |                         | 29                       |                         | 29                       |                         |

(a) Average number employed during period of operation whether for the whole or only part of the year. Includes working proprietors.

TABLE 5. - PLASTIC MOULDING AND PRODUCTS FACTORIES

## NUMBER EMPLOYED (a) ACCORDING TO OCCUPATIONAL STATUS : AUSTRALIA

| Occupational Status                                                                                              | 1962-63      |              | 1963-64      |              | 1964-65      |              |
|------------------------------------------------------------------------------------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                                                                                                                  | Males        | Females      | Males        | Females      | Males        | Females      |
| Working Proprietors                                                                                              | 117          | 35           | 128          | 33           | 131          | 35           |
| Managerial and Clerical Staff,<br>including Salaried Managers and<br>Working Directors                           | 1,039        | 760          | 1,160        | 789          | 1,246        | 875          |
| Chemists, Draftsmen and Other<br>Laboratory and Research Staff                                                   | 204          | 20           | 212          | 22           | 219          | 21           |
| Foremen and Overseers, Workers in<br>Factory (Skilled and Unskilled),<br>Other (Carters and Messengers,<br>etc.) | 5,832        | 3,794        | 6,123        | 4,201        | 6,712        | 4,918        |
| <b>TOTAL</b>                                                                                                     | <b>7,192</b> | <b>4,609</b> | <b>7,623</b> | <b>5,045</b> | <b>8,308</b> | <b>5,849</b> |

(a) Average number employed, calculated on a "whole year" basis, i.e. in factories working less than the full year, the average numbers are reduced to whole year equivalent.

TABLE 6. - PLASTIC MOULDING AND PRODUCTS FACTORIES

## NUMBER EMPLOYED ACCORDING TO AGE AND SEX : AUSTRALIA

(Excluding Working Proprietors)

| Last Pay Day<br>in June | Under<br>16 Years | 16 to 20<br>Years | 21 Years<br>and Over | Total<br>all Ages |
|-------------------------|-------------------|-------------------|----------------------|-------------------|
| <b>MALES</b>            |                   |                   |                      |                   |
| 1961                    | 51                | 447               | 5,418                | 5,916             |
| 1962                    | 73                | 541               | 5,965                | 6,579             |
| 1963                    | 64                | 624               | 6,361                | 7,049             |
| 1964                    | 45                | 674               | 6,974                | 7,693             |
| 1965                    | 55                | 644               | 7,604                | 8,303             |
| <b>FEMALES</b>          |                   |                   |                      |                   |
| 1961                    | 42                | 393               | 2,984                | 3,419             |
| 1962                    | 75                | 484               | 3,597                | 4,156             |
| 1963                    | 57                | 554               | 3,911                | 4,522             |
| 1964                    | 60                | 614               | 4,644                | 5,318             |
| 1965                    | 39                | 615               | 5,103                | 5,757             |

TABLE 7. - PLASTIC MOULDING AND PRODUCTS FACTORIES: CLASS OF ENGINES AND RATED HORSEPOWER

## AUSTRALIA

| Class of Engine                | Rated Horsepower of Engines |         |         |                    |         |         |
|--------------------------------|-----------------------------|---------|---------|--------------------|---------|---------|
|                                | Ordinarily in Use           |         |         | In Reserve or Idle |         |         |
|                                | 1962-63                     | 1963-64 | 1964-65 | 1962-63            | 1963-64 | 1964-65 |
| Internal Combustion -          |                             |         |         |                    |         |         |
| Petrol and other Light Oils    | 126                         | 154     | 154     | 426                | 428     | 428     |
| Heavy Oils                     | 68                          | 68      | 68      | 120                | 120     | 120     |
| <u>Total, Prime Movers</u>     | 194                         | 222     | 222     | 546                | 548     | 548     |
| Motors driven by Electricity - |                             |         |         |                    |         |         |
| Purchased                      | 54,382                      | 58,537  | 66,696  | 4,096              | 4,920   | 5,119   |
| Own Generation                 | ..                          | ..      | ..      | ..                 | ..      | 260     |
| <u>Total, Electricity</u>      | 54,382                      | 58,537  | 66,696  | 4,096              | 4,920   | 5,379   |
| <u>TOTAL POWER EMPLOYED</u>    | 54,576                      | 58,759  | 66,918  | 4,642              | 5,468   | 5,927   |

TABLE 8. - PLASTIC MOULDING AND PRODUCTS FACTORIES: POWER, FUEL, LIGHT, ETC., USED

## AUSTRALIA

| Particulars               | Unit of Quantity | Quantity |         |         | Value (\$) |           |           |
|---------------------------|------------------|----------|---------|---------|------------|-----------|-----------|
|                           |                  | 1962-63  | 1963-64 | 1964-65 | 1962-63    | 1963-64   | 1964-65   |
| Power, Fuel and Light -   |                  |          |         |         |            |           |           |
| Coal - Black              | ton              | 2,602    | 4,104   | 6,079   | 23,852     | 32,292    | 52,920    |
| Brown                     | "                | 880      | 726     | 987     | 5,722      | 4,690     | 5,924     |
| Brown Coal Briquettes     | "                | ..       | ..      | 2       | ..         | ..        | 26        |
| Coke                      | "                | 2        | 2       | 9       | 40         | 30        | 94        |
| Wood                      | "                | 97       | 174     | ..      | 586        | 1,258     | ..        |
| Fuel Oil                  | '000 gals        | 1,286    | 1,360   | 1,578   | 141,930    | 145,004   | 154,850   |
| Tar (Fuel)                | ton              | ..       | 813     | 1,076   | ..         | 18,768    | 21,754    |
| Electricity               | -                | (a)      | (a)     | (a)     | 1,835,552  | 2,054,852 | 2,428,442 |
| Gas                       | -                | (a)      | (a)     | (a)     | 87,032     | 84,228    | 102,362   |
| Other (Charcoal, etc.)    | -                | (a)      | (a)     | (a)     | 13,728     | 6,300     | 12,110    |
| Water and Lubricating Oil | -                | (a)      | (a)     | (a)     | 148,954    | 182,520   | 206,890   |
| <u>Total</u>              |                  | (a)      | (a)     | (a)     | 2,257,396  | 2,529,942 | 2,985,332 |

(a) Value only available.

TABLE 9. - PLASTIC MOULDING AND PRODUCTS FACTORIES

## VALUE OF LAND AND BUILDINGS, PLANT AND MACHINERY, ETC.: AUSTRALIA

(\$'000)

| Year    | Book Value as at 30th June (a) |                     | Additions and Replacements made during year |                     | Depreciation allowed during year |                     |
|---------|--------------------------------|---------------------|---------------------------------------------|---------------------|----------------------------------|---------------------|
|         | Land and Buildings             | Plant and Machinery | Land and Buildings                          | Plant and Machinery | Land and Buildings               | Plant and Machinery |
| 1960-61 | 17,556                         | 15,494              | 1,604                                       | 6,232               | 118                              | 2,632               |
| 1961-62 | 20,112                         | 21,210              | 1,008                                       | 5,060               | 136                              | 2,680               |
| 1962-63 | 23,320                         | 25,396              | 2,268                                       | 8,078               | 164                              | 3,290               |
| 1963-64 | 25,486                         | 28,964              | 2,038                                       | 7,842               | 144                              | 3,622               |
| 1964-65 | 29,954                         | 32,843              | 2,465                                       | 8,456               | 201                              | 4,580               |

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

TABLE 10. - SELECTED MATERIALS USED IN PLASTIC MOULDING AND PRODUCTS FACTORIES : AUSTRALIA

| Materials Used                                               | Commodity Code No. | Plastic Moulding and Products<br>(sub-class 1503) |                 |                  |                 |
|--------------------------------------------------------------|--------------------|---------------------------------------------------|-----------------|------------------|-----------------|
|                                                              |                    | 1963-64                                           |                 | 1964-65          |                 |
|                                                              |                    | Quantity<br>cwt.                                  | Value<br>\$'000 | Quantity<br>cwt. | Value<br>\$'000 |
| Moulding Powders, Flakes,<br>Granules, etc. -                |                    |                                                   |                 |                  |                 |
| Acrylic .. ..                                                | 403.20             | 9,038                                             | 565             | 9,978            | 626             |
| Casein .. ..                                                 | 403.10             | 1,907                                             | 47              | 4,548            | 103             |
| Cellulose Acetate ..                                         | 403.22             | 8,588                                             | 440             | 9,599            | 500             |
| Cellulose Acetate Butyrate ..                                | 403.24             | 2,323                                             | 154             | 3,249            | 248             |
| Phenol Formaldehyde ..                                       | 403.54             | 36,281                                            | 1,060           | 44,315           | 1,167           |
| Polyamide (Nylon etc.) ..                                    | 403.60             | 7,755                                             | 614             | 9,860            | 821             |
| Polyethylene (Polythene) -                                   |                    |                                                   |                 |                  |                 |
| High Density .. ..                                           | 403.66             | 109,461                                           | 3,430           | 155,627          | 4,924           |
| Low Density .. ..                                            | 403.67             | 199,178                                           | 5,960           | 311,913          | 8,661           |
| Co-polymers of Low Density                                   |                    |                                                   |                 |                  |                 |
| Polyethylene .. ..                                           | 403.68             | 1,363                                             | 43              | 2,154            | 72              |
| Polypropylene .. ..                                          | 403.69             | 14,187                                            | 564             | 22,613           | 803             |
| Polystyrene -                                                |                    |                                                   |                 |                  |                 |
| Beads for Expanding ..                                       | 403.74             | 6,254                                             | 299             | 7,049            | 311             |
| Other Forms - High Impact                                    | 403.75             | 79,391                                            | 2,940           | 85,983           | 3,008           |
| " - General Purpose                                          | 403.76             | 62,754                                            | 1,752           | 60,909           | 1,739           |
| Urea Formaldehyde ..                                         | 403.84             | 27,803                                            | 965             | 27,460           | 951             |
| Melamine Formaldehyde ..                                     | 403.85             | 2,734                                             | 137             | 5,797            | 286             |
| Copolymers of Vinyl or Vinylidene                            | 403.91             | 79,273                                            | 2,249           | 89,268           | 2,410           |
| Polyvinyl Chloride-Plasticised                               | 403.93             | 68,602                                            | 1,990           | 71,516           | 2,063           |
| Unplasticised                                                | 403.94             | 166,282                                           | 4,067           | 223,724          | 5,131           |
| Other .. ..                                                  | 403.30,97          | 31,427                                            | 958             | 47,032           | 1,091           |
| Liquid Resins -                                              |                    |                                                   |                 |                  |                 |
| For moulding, extrusion, calendering,<br>etc.                |                    |                                                   |                 |                  |                 |
| Epoxy Resins .. ..                                           | 403.38             | 729                                               | 44              | 772              | 44              |
| Phenol Formaldehyde ..                                       | 403.55             | 21,862                                            | 505             | 23,020           | 515             |
| Polyester Resins - For Foaming                               | 403.63             | 190                                               | 13              | 573              | 29              |
| - For Other                                                  |                    |                                                   |                 |                  |                 |
| Purposes                                                     | 403.64             | 21,164                                            | 766             | 24,798           | 843             |
| Melamine Formaldehyde ..                                     | 403.86             | (a)                                               | (a)             | (a)              | (a)             |
| Other .. ..                                                  | 403.31,71          | 9,864                                             | 272             | 8,827            | 275             |
|                                                              | 403.98             |                                                   |                 |                  |                 |
| Other Chemicals, excl. tar oils and<br>colouring materials - |                    |                                                   |                 |                  |                 |
| Foam pre-polymer -                                           |                    |                                                   |                 |                  |                 |
| polyurethane-polyester                                       | 403.41             | 16,635                                            | 196             | 45,163           | 356             |
| -polyether                                                   | 403.43             |                                                   |                 |                  |                 |
| -other                                                       | 403.49             |                                                   |                 |                  |                 |
| Isocyanate .. ..                                             | 406.38             | 197,432                                           | 116             | 299,622          | 145             |
| Plasticisers - Phthalate type                                | 407.02             | 88,153                                            | 2,087           | 105,734          | 2,495           |
| Polymeric type                                               | 407.04             | 5,454                                             | 218             | 7,424            | 290             |
| Other types                                                  | 407.08             | 11,295                                            | 378             | 14,397           | 470             |
| Miscellaneous -                                              |                    |                                                   |                 |                  |                 |
| Asbestos - for plastics products                             | 279.06             | 2,468                                             | 171             | (a)              | (a)             |
| Fibre Glass - All Types ..                                   | 473.32             | 8,477                                             | 620             | 9,757            | 652             |

(a) Not available for publication.

NOTE. - The above details relate to materials used only in factories classified to sub-class 1503 (Plastic Moulding and Products) and are not necessarily comparable with figures published in previous issues of this Bulletin.

TABLE 11. - SELECTED ARTICLES PRODUCED IN ALL FACTORIES : AUSTRALIA

(NOTE. - These details relate to production in all factories irrespective of classification.)

| Articles Produced                                                            | Commodity Code No. | Unit of Quantity | 1963-64  |                | 1964-65  |                |
|------------------------------------------------------------------------------|--------------------|------------------|----------|----------------|----------|----------------|
|                                                                              |                    |                  | Quantity | Value (\$'000) | Quantity | Value (\$'000) |
| <u>Hose, Pipe and Conduit -</u>                                              |                    |                  |          |                |          |                |
| Plastic Hose - garden                                                        | 422.02             | '000 lin.ft.     | 37,268   | 1,052          | 49,628   | 1,327          |
| other than garden                                                            | 422.04             | "                | 4,642    | 305            | 6,152    | 416            |
| Piping - polythene                                                           | 422.12             | "                | (a)      | 3,379          | 90,156   | 5,051          |
| polyvinyl chloride                                                           | 422.14             | "                | (a)      | 2,090          | 64,493   | 2,739          |
| other plastic                                                                | 422.18             | "                | (a)      | 393            | 5,288    | 422            |
| <u>Unsupported Plastic Film and</u>                                          |                    |                  |          |                |          |                |
| <u>Sheeting (b)</u>                                                          |                    |                  |          |                |          |                |
| By Polymers (Type) -                                                         |                    | '000 lb.         |          |                |          |                |
| vinyl chloride (incl. co-polymers)                                           | 423.01,05          | "                | 16,159   | (o)            | 18,028   | (o)            |
| polyethylene                                                                 | 423.11-25          | "                | 15,234   | (o)            | 20,281   | (o)            |
| polystyrene                                                                  | 423.31,35          | "                | 2,714    | (o)            | 3,632    | (o)            |
| other                                                                        | 423.41-65          | "                | 2,631    | (o)            | 3,380    | (o)            |
| Total by Polymers                                                            |                    |                  | 36,738   | (o)            | 45,321   | (o)            |
| By Thickness and Polymers (Type)                                             |                    |                  |          |                |          |                |
| Film (up to and incl. 0.010" thickness) -                                    |                    |                  |          |                |          |                |
| vinyl chloride (incl. co-polymers)                                           | 423.01             | "                | 8,709    | (o)            | 9,329    | (o)            |
| other (incl. polyethylene)                                                   | 423.11,21,31,41,61 | "                | 16,889   | (o)            | 22,316   | (o)            |
| Total film                                                                   |                    |                  | 25,598   | (o)            | 31,645   | (o)            |
| Sheeting (thickness over 0.010") -                                           |                    |                  |          |                |          |                |
| vinyl chloride (incl. co-polymers)                                           | 423.05             | "                | 7,450    | (o)            | 8,699    | (o)            |
| other (incl. polyethylene and polystyrene)                                   | 423.15,25,35,45,65 | "                | 3,690    | (o)            | 4,976    | (o)            |
| Total sheeting                                                               |                    |                  | 11,140   | (o)            | 13,675   | (o)            |
| <u>Plastics Coated Materials (d)</u>                                         |                    |                  |          |                |          |                |
| Vinyl chloride (incl. co-polymers) -                                         |                    | '000 sq.yds      |          |                |          |                |
| on knitted or woven textile materials                                        | 424.31             | "                | 12,615   | (o)            | 13,831   | (o)            |
| on other materials (excl. steel sheets)                                      | 424.39             | "                | 999      | (o)            | 1,261    | (o)            |
| Polyethylene -                                                               |                    |                  |          |                |          |                |
| on transparent materials                                                     | 424.41             | "                | 10,436   | (o)            | 11,970   | (o)            |
| on aluminium foil                                                            | 424.43             | "                | 2,743    | (o)            | 2,936    | (o)            |
| on paper and paperboard                                                      | 424.45             | "                | 13,528   | (o)            | 16,863   | (o)            |
| on other materials (excl. metal)                                             | 424.49             | "                | 538      | (o)            | 543      | (o)            |
| Other (incl. vinylidene chloride)                                            | 424.59             | "                | 4,038    | (o)            | 5,102    | (o)            |
| <u>Plastic Sheets, rigid or semi-rigid (incl. reinforced or laminated) -</u> |                    |                  |          |                |          |                |
| Decorative - laminated                                                       | 425.02             | "                | 1,712    | 6,182          | 2,051    | 6,666          |
| Building and Roofing - flat                                                  | 425.12             | "                | 402      | 1,366          | 685      | 1,880          |
| corrugated - fibreglass reinforced                                           | 425.15             | "                |          |                |          |                |
| other                                                                        | 425.16             | "                |          |                |          |                |

For footnotes see page 9.

TABLE 11. - SELECTED ARTICLES PRODUCED IN ALL FACTORIES : AUSTRALIA - continued

(NOTE. - These details relate to production in all factories irrespective of classification.)

| Articles Produced                                       | Commodity Code No. | Unit of Quantity | 1961-64  |                | 1964-65  |                |
|---------------------------------------------------------|--------------------|------------------|----------|----------------|----------|----------------|
|                                                         |                    |                  | Quantity | Value (\$'000) | Quantity | Value (\$'000) |
| <u>Plastic Foam (in block or sheet form) for sale -</u> |                    |                  |          |                |          |                |
| Flexible -                                              |                    | '000             |          |                |          |                |
| all types                                               | 426.03, 05, 09     | sq. ft.          | 10,922   | 2,025          | 24,753   | 3,230          |
| Rigid or semi-rigid -                                   |                    |                  |          |                |          |                |
| polystyrene                                             | 426.11             | "                | 10,601   | 970            | 11,893   | 1,123          |
| other                                                   | 426.13, 15, 19     | "                | 1,450    | 239            | 2,454    | 410            |
| <u>Moulded, shaped or fabricated foam products -</u>    |                    |                  |          |                |          |                |
| Flexible -                                              |                    |                  |          |                |          |                |
| polyurethane - polyether                                | 426.25             | '000 lb.         | 2,421    | 2,544          | 1,559    | 1,635          |
| other                                                   | 426.23, 27, 29     | "                | 885      | 800            | 1,075    | 713            |
| Rigid or semi-rigid -                                   |                    |                  |          |                |          |                |
| polystyrene -                                           |                    | '000             |          |                |          |                |
| lagging half sections                                   | 426.31             | lin. ft.         | 359      | 88             | 305      | 97             |
| other products n.e.i.                                   | 426.32             | -                | (a)      | 208            | (a)      | 464            |
| other                                                   | 426.33, 35, 39     | '000 lb.         | (e)      | (e)            | 99       | 255            |
| <u>Household Fittings and Furnishings -</u>             |                    |                  |          |                |          |                |
| Plastic - Sinks                                         | 671.18             | number           | 1,617    | 10             | 693      | 6              |
| Wash basins                                             | 671.38             | "                | (e)      | (e)            | 3,483    | 28             |
| Lavatory seats                                          | 671.47             | '000             | 319      | 804            | 459      | 1,043          |
| Blinds and Awnings, Outdoor -                           |                    |                  |          |                |          |                |
| fibreglass                                              | 747.41             | -                | (a)      | 77             | (a)      | 48             |
| Baths, plastic - infants'                               | 859.11             | '000             | 104      | 168            | 130      | 200            |
| other                                                   | 671.08             | "                | 4        | 154            | 2        | 91             |
| <u>Household Accessories -</u>                          |                    |                  |          |                |          |                |
| Kitchenware and Tableware (plastic)                     | 851.31             | -                | (a)      | 8,668          | (a)      | 9,590          |
| Coat hangers (plastic)                                  | 859.51             | gross            | 16,496   | 169            | 23,383   | 256            |
| <u>Floor Coverings -</u>                                |                    |                  |          |                |          |                |
| Plastics -                                              |                    |                  |          |                |          |                |
| Vinyl -                                                 |                    |                  |          |                |          |                |
| in rolls, width 1 ft. or more                           | 841.58             | '000 sq. yds.    | 561      | 812            | 734      | 1,023          |
| other (tiles, squares, feature strip, etc.) -           |                    |                  |          |                |          |                |
| flexible vinyl                                          | 841.54             | "                | 1,260    | 1,511          | 1,737    | 3,680          |
| vinyl asbestos                                          | 841.56             | "                | 2,765    | 4,570          | 2,933    | 4,118          |
| <u>Clothing and Clothing Accessories -</u>              |                    |                  |          |                |          |                |
| Coats and Jackets, Plastic (unsupported film) -         |                    |                  |          |                |          |                |
| short length                                            | 771.21             | '000             | 48       | 69             | 35       | 37             |
| full and 3/4 length                                     | 771.25             | "                | 1,635    | 1,927          | 1,265    | 1,336          |
| Hats, plastic (incl. plastic foam)                      | 778.91             | dozen            | 36,907   | (e)            | 33,152   | (e)            |

For footnotes see page 9.

TABLE 11. - SELECTED ARTICLES PRODUCED IN ALL FACTORIES : AUSTRALIA - continued

(NOTE. - These details relate to production in all factories irrespective of classification.)

| Articles Produced                                           | Commodity Code No. | Unit of Quantity | 1963-64  |                | 1964-65  |                |
|-------------------------------------------------------------|--------------------|------------------|----------|----------------|----------|----------------|
|                                                             |                    |                  | Quantity | Value (\$'000) | Quantity | Value (\$'000) |
| <u>Clothing and Clothing Accessories - (continued)</u>      |                    |                  |          |                |          |                |
| Footwear (moulded plastic and predominantly of plastic) -   |                    | '000             |          |                |          |                |
| Men's and Youth's                                           | 791.25             | pairs            | 140      | 128            | 113      | 147            |
| Women's and Maids'                                          | 791.55             | "                | (e)      | (e)            | 178      | 157            |
| Boys' and Girls'                                            | 791.76             | "                | 716      | 384            | 526      | 298            |
| Infants                                                     | 791.97             | "                | 128      | 78             | 68       | 29             |
| <u>Other Articles (made from plastics) -</u>                |                    |                  |          |                |          |                |
| Plastic sheet or film (polythene etc.) bags and packets     | 945.11             | -                | (a)      | 12,378         | (a)      | 14,600         |
| Packers' cans, canisters and containers (incl. collapsible) | 945.21             | -                | (a)      | 6,719          | (a)      | 7,942          |
| Boats, fibreglass                                           | 591.21             | number           | 3,484    | 2,030          | 5,456    | 3,272          |
| Games (f)                                                   | 834.21             | -                | (a)      | 1,348          | (a)      | 1,484          |
| Toys (incl. dolls) (f)                                      | 834.01             | -                | (a)      | 10,105         | (a)      | 10,208         |
| Brush Blanks                                                | 429.04             | -                | (a)      | 208            | (a)      | 210            |
| Handles, tool and other                                     | 429.08             | -                | (a)      | 578            | (a)      | 870            |
| Trim and beading                                            | 429.36             | -                | (a)      | 416            | (a)      | 691            |
| Cabinets - Radio - console, table or mantel portable        | 649.04.08          | '000             | 126      | (e)            | 42       | (e)            |
|                                                             | 649.12             | "                | 32       | (e)            | 71       | (e)            |
| Spectacle frames                                            | 883.01             | "                | 2,680    | 3,035          | 2,612    | 3,312          |
| Pen and pencil barrels                                      | 902.41             | -                | (a)      | 290            | (a)      | 287            |
| Bottle tops, caps and closures                              | 948.01             | -                | (a)      | 2,888          | (a)      | 3,406          |
| Rods, blocks, plates and other unfinished forms             | 429.99             | -                | (a)      | 1,030          | (a)      | 2,157          |
| Slide fasteners                                             | 974.12             | '000             |          |                |          |                |
|                                                             |                    | lin.-ft.         | 2,632    | 354            | 4,590    | 702            |
| Combs                                                       | 861.31             | gross            | 134,352  | 496            | 122,644  | 541            |
| Buckles                                                     | 974.41             | -                | (a)      | 22             | (a)      | 24             |
| Knitting needles                                            | 974.31             | gross            | 16,547   | 144            | 23,519   | 157            |
| Wallets and Billfolds                                       | 864.65             | '000             | 3,248    | 154            | 1,463    | 86             |
| Suitcases                                                   | 864.15             | "                | 387      | 1,592          | 434      | 2,045          |

(a) Value only available. (b) Weight at completion of calendaring, extrusion or casting of continuous or sheeted materials, flat or corrugated, not supported, including lay flat tubing, foil and sheets. For laminated materials weight of plies drawn from stock is excluded. (c) Quantity only available. (d) Area on completion of permanent coating by any method, including laminating, on the continuous supporting materials specified. (e) Not available for publication. (f) Includes articles made partly or wholly from materials other than plastics.

TABLE 12. - PLASTIC AND SYNTHETIC RESINS AND PLASTICISERS PRODUCED IN ALL FACTORIES (a)

AUSTRALIA

(NOTE. - These details relate to production in all factories, irrespective of classification)

| Articles Produced                                                         | Commodity Code No.                 | 1963-64 | 1964-65 |
|---------------------------------------------------------------------------|------------------------------------|---------|---------|
| <u>Plastic and Synthetic Resins (c) -</u>                                 |                                    |         |         |
| <u>For Moulding, Extrusion, Calendering, etc. -</u>                       |                                    |         |         |
| Phenolics .. ..                                                           | 403.52                             | 97      | 125     |
| Polyesters .. ..                                                          | 403.62                             | 58      | 71      |
| Ureas and Melamines .. ..                                                 | 403.82                             | 47      | 57      |
| All Other .. ..                                                           | 403.02, 18, 20, 65, 75, 90, 92, 96 |         |         |
|                                                                           |                                    | 980     | 974     |
| Total                                                                     |                                    | 1,182   | 1,227   |
| <u>For Protective Coatings, Paints, etc. -</u>                            |                                    |         |         |
| Alkyd .. ..                                                               | 404.02                             | 375     | 395     |
| Phenolics (Pure and Modified) .. ..                                       | 404.32                             | 14      | 16      |
| Rosin Esters .. ..                                                        | 404.48                             | 26      | 33      |
| Styrenes .. ..                                                            | 404.62                             | 15      | 15      |
| Ureas and Melamines .. ..                                                 | 404.74                             | 21      | 23      |
| Polyvinyl Acetate .. ..                                                   | 404.88                             | 65      | 60      |
| Other (including polyesters) .. ..                                        | 404.40, 94                         | 61      | 76      |
| Total                                                                     |                                    | 577     | 618     |
| <u>For Bonding and Adhesives -</u>                                        |                                    |         |         |
| Phenolics .. ..                                                           | 404.34                             | 22      | 29      |
| Ureas and Melamines .. ..                                                 | 404.76                             | 114     | 149     |
| Polyvinyl Acetate .. ..                                                   | 404.90                             | 29      | 37      |
| Other .. ..                                                               | 404.96                             | 9       | 12      |
| Total                                                                     |                                    | 174     | 226     |
| <u>For Other Purposes (Textile Impregnation, Paper Treatment, etc.) -</u> |                                    |         |         |
| Ureas and Melamines .. ..                                                 | 404.78                             | 5       | 5       |
| Other .. ..                                                               | 409.36, 64, 84, 98                 | 36      | 46      |
| Total                                                                     |                                    | 41      | 51      |
| <u>Plasticisers -</u>                                                     |                                    |         |         |
| Phthalate .. ..                                                           | 407.02                             | 172     | 207     |
| All Other .. ..                                                           | 407.04, 08                         | 6       | 8       |

(a) Plastic and Synthetic Resins are generally produced in Chemical factories and not in establishments covered by this bulletin. However, these details are shown here for information.

(c) Liquid resins are shown in forms of dry weight of resin content.

TABLE 13. - IMPORTS OF PLASTIC MATERIALS(a) : AUSTRALIA

| Article                                                                                                                                                        | Unit     | 1950-51 | 1951-52 | 1952-53 | 1953-54 | 1954-55 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------|---------|---------|---------|---------|
| <u>Liquids (including Solutions and Pastes) and Solids processed to a lesser extent than Blocks, Rods, Sheets and Other preformed shapes (including Scrap)</u> |          |         |         |         |         |         |
| Of the phenolic type                                                                                                                                           | '000 lb. | 1,255   | 1,324   | 2,041   | 1,680   | 1,934   |
|                                                                                                                                                                | \$A'000  | 332     | 334     | 484     | 402     | 483     |
| Of the amino type                                                                                                                                              | '000 lb. | 2,237   | 1,166   | 1,709   | 1,989   | 2,783   |
|                                                                                                                                                                | \$A'000  | 299     | 149     | 221     | 272     | 335     |
| Of the vinyl and vinylidene type in any polymerized or co-polymerized form - polyvinyl chloride                                                                | '000 lb. | 7,158   | 4,493   | 2,129   | 4,109   | 15,533  |
|                                                                                                                                                                | \$A'000  | 1,106   | 736     | 430     | 706     | 2,313   |
| polyvinyl chloride copolymers                                                                                                                                  | '000 lb. | 4,989   | 3,663   | 1,645   | 1,343   | 4,690   |
|                                                                                                                                                                | \$A'000  | 877     | 597     | 356     | 320     | 835     |
| polyvinyl acetate                                                                                                                                              | '000 lb. | 290     | 530     | 482     | 592     | 480     |
|                                                                                                                                                                | \$A'000  | 65      | 98      | 106     | 110     | 147     |
| Other                                                                                                                                                          | '000 lb. | 3,840   | 2,167   | 2,096   | 2,610   | 3,015   |
|                                                                                                                                                                | \$A'000  | 1,056   | 792     | 803     | 1,101   | 1,118   |
| Of the acrylic type                                                                                                                                            | '000 lb. | 3,321   | 3,389   | 2,721   | 2,461   | 4,353   |
|                                                                                                                                                                | \$A'000  | 996     | 901     | 806     | 866     | 1,544   |
| Of the polystyrene type                                                                                                                                        | '000 lb. | 6,892   | 6,833   | 9,495   | 11,170  | 10,152  |
|                                                                                                                                                                | \$A'000  | 1,681   | 1,931   | 2,542   | 2,793   | 3,267   |
| Of the polyethylene type                                                                                                                                       | '000 lb. | 17,824  | 14,312  | 17,164  | 26,220  | 28,862  |
|                                                                                                                                                                | \$A'000  | 5,363   | 3,748   | 4,073   | 6,441   | 6,590   |
| Cellulose acetate (including Butyrate)                                                                                                                         | '000 lb. | 373     | 460     | 505     | 685     | 420     |
|                                                                                                                                                                | \$A'000  | 204     | 229     | 273     | 363     | 313     |
| Other                                                                                                                                                          | '000 lb. | 10,654  | 9,403   | 23,461  | 28,353  | 20,430  |
|                                                                                                                                                                | \$A'000  | 6,459   | 5,064   | 11,369  | 12,404  | 6,110   |

## Blocks, Rods, Sheets and Preformed Shapes not further processed

|                                                                           |          |        |          |          |          |       |
|---------------------------------------------------------------------------|----------|--------|----------|----------|----------|-------|
| Of the amino type                                                         | lb.      | 71,197 | 241      | (b)      | (b)      | (b)   |
|                                                                           | \$A      | 30,484 | 1,204    | (b)      | (b)      | (b)   |
| Of the vinyl or vinylidene type in any polymerized or co-polymerized form | '000 lb. | 1,890  | (c)2,860 | (c)3,091 | (c)3,625 | 4,717 |
|                                                                           | \$A'000  | 1,268  | 2,196    | 2,554    | 2,210    | 2,554 |
| Of the acrylic type                                                       | '000 lb. | 2,918  | (c)2,068 | (c)3,059 | (c)2,936 | 2,061 |
|                                                                           | \$A'000  | 2,161  | 1,452    | 1,972    | 2,112    | 1,228 |
| Of the polystyrene type                                                   | '000 lb. | 88     | (c) 49   | (c) 69   | (c) 338  | 255   |
|                                                                           | \$A'000  | 56     | 58       | 60       | 193      | 153   |
| Of the polyethylene type                                                  | '000 lb. | 169    | (c) 155  | (c) 575  | (c)1,979 | 2,307 |
|                                                                           | \$A'000  | 45     | 126      | 408      | 747      | 734   |
| Cellulose acetate (incl. transparent paper) and Butyrate                  | '000 lb. | 2,139  | (c)1,703 | (c)1,876 | (c)2,239 | 2,379 |
|                                                                           | \$A'000  | 1,837  | 1,625    | 1,428    | 2,058    | 2,154 |
| Cellulose nitrate (celluloid)                                             | '000 lb. | 474    | 384      | 483      | 486      | 538   |
|                                                                           | \$A'000  | 439    | 269      | 433      | 477      | 542   |
| Other                                                                     | 'A'000   | 627    | 956      | 1,099    | 1,605    | 1,894 |

(a) Excludes synthetic fibres, natural resins, bituminous moulding compounds, synthetic rubber and synthetic elastomers, prepared adhesives, synthetic oils, synthetic sausage casings and laminated plastics.

(b) Not recorded separately.

(c) Excludes quantities not recorded in lb. weight.

NOTE. - Values are expressed in \$A f.o.b. port of shipment.

TABLE 14. - EXPORTS OF PLASTIC MATERIALS (a) : AUSTRALIA

| Article                                                                                                     | Unit                | 1960-61          | 1961-62          | 1962-63          | 1963-64          | 1964-65          |
|-------------------------------------------------------------------------------------------------------------|---------------------|------------------|------------------|------------------|------------------|------------------|
| (1) Liquids, (including Solutions)                                                                          | gals.<br>\$A        | 36,482<br>49,372 | 48,126<br>31,748 | 28,301<br>56,864 | 20,781<br>46,842 | 55,207<br>95,474 |
| Solids, (including Scrap) processed to a lesser extent than Blocks, Rods, Sheets and Other Preformed Shapes | '000 lb.<br>\$A'000 | 4,004<br>860     | 7,658<br>1,609   | 11,200<br>2,221  | 17,385<br>3,360  | 23,624<br>4,367  |
| Blocks, Rods, Sheets and Other Preformed Shapes                                                             | '000 lb.<br>\$A'000 | 763<br>419       | 861<br>639       | 1,173<br>650     | 949<br>698       | 1,662<br>883     |

(a) See footnote (a), Table 13.

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COMMONWEALTH BUREAU OF CENSUS AND STATISTICS

CANBERRA, A.C.T. 13TH DECEMBER, 1966.

NOTE. - Inquiries concerning these statistics may be made in Canberra by telephoning 639111 Extension 2267 or, in each State Capital, by telephoning the office of the Bureau of Census and Statistics.