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Industrial Chemicals and Synthetic Resins

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For information on the wide range of data available from Statistics Canada, you can contact us by calling our toll free National inquiry line at 1 800 263-1136 .

Highlights

- In April 2006, the production of ethylene fell 2.4% to 421,102 metric tonnes. Compared with the same month last year, production was up 10.6%.
- Polyethylene production in Canada decreased 3.0% to 298,481 metric tones between March and April 2006. However, polyethylene production increased 7.5% compared with April 2005.

Data available on CANSIM, table 303-0014.

Manufacturing, Construction and Energy Division

June 2006

Note of appreciation

Canada owes the success of its statistical system to a long-standing partnership between Statistics Canada, the citizens of Canada, its businesses and governments. Accurate and timely statistical information could not be produced without their continued cooperation and goodwill.

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Canada

Table 1
Production of new virgin resin (excluding compounding or colouring ingredients), by product, monthly

Product	SCG * Code	April 2005	March 2006	April 2006	Change April 2006/ March 2006	Change April 2006/ April 2005
		metric tonnes			%	
Synthetic resins						
Polyethylene, low and linear low density	3901.10, 3901.90.10	164,887 r	x	x	x	x
Polyethylene, high density	3901.20	111,108 r	x	x	x	x
Polyethylene, total		275,995 r	307,460	298,481	-2.9	8.1
Polystyrene and acrylonitrile-butadiene-styrene (abs)	3903.1, 3903.30	16,962	16,585	19,302	16.4	13.8
Polyvinyl chloride	3904.10	x	x	x	x	x
Polyesters, unsaturated	3907.91	8,064	7,623	7,076	-7.2	-12.3

Table 2
Production of industrial chemicals, by product, monthly

Product	SCG * Code	April 2005	March 2006	April 2006	Change April 2006/ March 2006	Change April 2006/ April 2005
		metric tonnes			%	
Acids						
Hydrochloric (muriatic) acid, 100%	2806.10.20	11,947	13,403	13,102	-2.2	9.7
Nitric acid, 100 %	2808.00.10	92,014	102,207	92,647	-9.4	0.7
Phosphoric acid, wet process	2809.20	x	x	x	x	x
Sulphuric acid, all grades, including oleum, as 100%	2807	352,616	342,932	344,473	0.4	-2.3
Other Industrial Chemical Products						
Aluminum sulphate (alum)	2833.22	15,286	13,206	14,106	6.8	-7.7
Ammonia, anhydrous, 100%	2814.10	418,287	379,133	380,745	0.4	-9.0
Ammonium nitrate, all grades	3102.30	94,501	97,666	93,575	-4.2	-1.0
Ammonium phosphate, all grades	3105.30	x	x	x	x	x
Butadiene	2901.24.10	18,287	23,104	23,168	0.3	26.7
Butylene	2901.23	16,028	17,829	21,914	22.9	36.7
Carbon black	2803	17,733	19,663	19,210	-2.3	8.3
Chlorine	2801.10	85,739	83,344	84,006	0.8	-2.0
Ethylene	2901.21	376,494	x	421,102	x	11.8
Formaldehyde, 100% solids basis	2912.11	22,580	21,812	20,835	-4.5	-7.7
Hydrogen peroxide, 100%	2847.00	20,871	20,856	18,901	-9.4	-9.4
Methyl alcohol (methanol)	2905.11	x	x	x	x	x
Propylene, as propylene in all grades	2901.22	54,805	78,267	71,352	-8.8	30.2
Sodium chlorate	2829.11	94,524	99,838	92,449	-7.4	-2.2
Sodium hydroxide (caustic soda), as 100% NaOH	2815.1	97,589	91,606	90,469	-1.2	-7.3
Urea, all grades	3102.10	322,112	280,758	327,591	16.7	1.7
Benzene	2902.20	67,448	66,892	64,837	-3.1	-3.9
Toluene	2902.30	10,202	26,625	29,537	10.9	189.5
Xylene	2902.4	24,878	32,561	31,330	-3.8	25.9
Zinc oxide	2817.00.1	x	x	x	x	x

Table 3
Production of new virgin resin (excluding compounding or colouring ingredients), by product, Year-to-date

Product	SCG * Code	Year-to-date April 2005	Year-to-date April 2006	Change year-to-date 2006/2005
		metric tonnes		%
Synthetic resins				
Polyethylene, low and linear low density	3901.10, 3901.90.10	668,588	x	x
Polyethylene, high density	3901.20	465,941	x	x
Polyethylene, total		1,134,529	1,200,070	5.8
Polystyrene and acrylonitrile-butadiene-styrene (abs)	3903.1, 3903.30	70,277	68,728	-2.2
Polyvinyl chloride	3904.10	x	x	x
Polyesters, unsaturated	3907.91	30,719	28,850	-6.1

Table 4
Production of industrial chemicals, by product, Year-to-date

Product	SCG * Code	Year-to-date April 2005	Year-to-date April 2006	Change year-to-date 2006/2005
		metric tonnes		%
Acids				
Hydrochloric (muriatic) acid, 100%	2806.10.20	45,692	53,787	17.7
Nitric acid, 100 %	2808.00.10	412,261	396,274	-3.9
Phosphoric acid, wet process	2809.20	x	x	x
Sulphuric acid, all grades, including oleum, as 100%	2807	1,376,468	1,353,785	-1.6
Other Industrial Chemical Products				
Aluminum sulphate (alum)	2833.22	54,370	51,679	-4.9
Ammonia, anhydrous, 100%	2814.10	1,598,491	1,488,243	-6.9
Ammonium nitrate, all grades	3102.30	416,553	392,836	-5.7
Ammonium phosphate, all grades	3105.30	x	x	x
Butadiene	2901.24.10	88,002	85,767	-2.5
Butylene	2901.23	75,714	67,685	-10.6
Carbon black	2803	77,081	76,008	-1.4
Chlorine	2801.10	333,346	332,333	-0.3
Ethylene	2901.21	1,661,959	x	x
Formaldehyde, 100% solids basis	2912.11	x	82,523	x
Hydrogen peroxide, 100%	2847.00	85,091	80,603	-5.3
Methyl alcohol (methanol)	2905.11	x	x	x
Propylene, as propylene in all grades	2901.22	282,821	271,558	-4.0
Sodium chlorate	2829.11	397,108	381,085	-4.0
Sodium hydroxide (caustic soda), as 100% NaOH	2815.1	372,891	364,184	-2.3
Urea, all grades	3102.10	1,195,983	1,151,812	-3.7
Benzene	2902.20	300,736	254,504	-15.4
Toluene	2902.30	79,620	86,285	8.4
Xylene	2902.4	119,015	x	x
Zinc oxide	2817.00.1	x	x	x

Explanatory Notes

Concepts, methodology and data quality

This publication presents the results of the survey, Industrial Chemicals and Synthetic Resins. This survey measures, on a monthly basis, the quantities of selected industrial chemicals and new virgin resins produced by Canadian manufacturers. The target population for this survey includes manufacturers in Canada of selected industrial chemicals and synthetic resins as defined in the Standard Classification of Goods (SCG) that report these products to the Annual Survey of Manufactures or ASM (Survey ID 2103). This means that estimates from this monthly survey do not cover the entire universe of industrial chemicals and synthetic resins' producers in Canada because the ASM does not survey all businesses. Instead, the ASM uses administrative data to cover the small and medium-sized establishments. These manufacturers are not part of this survey.

General methodology

Data are collected monthly using a mail-out / mail-back process. Data capture and preliminary editing are performed simultaneously to ensure validity of the data. Businesses from whom no response has been received or whose data may contain errors are followed-up by telephone or fax.

Missing data for the current month are imputed automatically by applying to the previous month's value, the month-to-month change observed for the same period in the previous year, for the unit in question. However, an option exists for analysts to manually override this imputation with a better estimate based on pertinent knowledge about the industry or the business.

Various confidentiality rules are applied to all data before they are released to prevent the publication or disclosure of any information deemed confidential. If necessary, data are suppressed to prevent direct or residual disclosure of identifiable data.

Direct disclosure could occur when the value in a tabulation cell is composed of a few respondents or when the cell is dominated by a few companies. Residual disclosure could occur when confidential information can be derived indirectly by piecing together information from different sources or data series.

Under normal circumstances, data are collected, captured, edited, tabulated and published within 6 to 7 weeks after the reference month.

Revisions

Data may be revised to include amended information or reports from respondents that are received after the end of a collection cycle. Revisions are disseminated in subsequent periods and reflected in the CANSIM series and in the tables of this publication.

Data Accuracy

The methodology for this survey has been designed to promote data accuracy. Since data are collected from all Canadian producers of industrial chemicals and synthetic resins within the target population, the resulting estimates are not subject to sampling error. However, the results are still subject to non-sampling errors associated with coverage, non-response, inaccurate reporting, and processing. Errors relating to coverage and non-response can be measured and are presented below. All attempts are made to control/minimize inaccurate reporting and processing errors.

Moreover, the data are analyzed for consistency by comparing to historical series and economic conditions in the industry. Information available from other sources such as the media, other government organizations and industry associations are also used in the validation process.

Coverage error

There is a degree of under coverage (referred to as coverage error) in the survey results as there is generally a lag between the time a new business comes into existence and when it is included in the universe of this sub-annual survey. This occurs because the list of businesses surveyed is derived from the latest available survey results for the ASM which are not available until 15 months after the reference period.

This error is kept at a minimum by also using advance information from the ASM, and other sources such as the Canadian Chemicals Producers' Association, trade journals and newspaper articles to identify new survey units.

Based on the ASM 2003 (latest available survey results), the coverage error for the Industrial Chemicals and Synthetic Resins survey was 2%.

Non-response error

Some respondents may be unable to provide data for numerous reasons (i.e. fire, theft, strike, economic hardship, etc.), while others may be too late in responding. To minimize non-response, delinquent respondents are followed up rigorously by phone or FAX. Data for the non-responding units are imputed using industry trend and other related information. Data are revised at a later date, if completed questionnaires are received after the end of a collection cycle.

The average non-response error for the Industrial Chemicals and Synthetic Resins survey was estimated at 3% for 2004 (the last completed cycle).

Inaccurate response

Inaccuracy may result from poor questionnaire design or an inability on the part of respondents to provide the requested information or from misinterpretation of the survey questions. To reduce such errors, the format and wording in the questionnaire are reviewed from time to time and modified based on feedback from survey respondents and data users. Respondents are also reminded of the importance of their contribution and of the need for accurate reporting.

Processing errors

These errors may occur at various stages in the processing of survey data such as data entry, verification, editing and tabulation. Data are examined for such errors using automated edits along with an analytical review by subject matter experts. Several checks are performed on the collected data, to verify internal consistency and comparability over time.

Definitions

Production

Production refers to the quantity of products manufactured in Canada during a reference period including intermediate products. The final products may be shipped or retained in inventory.

More detailed data are available from the Annual Survey of Manufactures, CANSIM Table 301-0003. Specific enquiries should be directed to: The Marketing and Dissemination Section, Manufacturing, Construction and Energy Division, Statistics Canada, Ottawa, Ontario, K1A OT6 (Telephone: 1-866-873-8789 or 613-951-9497; Fax line: 613-951-9499; Internet: manufact@statcan.ca).