

# **WORLD NICKEL STATISTICS**

Monthly Bulletin

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## THE INTERNATIONAL NICKEL STUDY GROUP

### Introduction

The International Nickel Study Group (INSG) is an autonomous, intergovernmental organization established in 1990. Membership comprises nickel producing, consuming and trading countries. The INSG has no provision for market stabilization activities or market intervention of any kind. It has no formal connections with any other international organizations, whether intergovernmental or private sector.

### Objectives

The objectives of the Group are:

- to collect and publish improved statistics on nickel markets (including production, usage (consumption), trade, stocks, prices and other statistics such as recycling);
- to publish other information on nickel, such as data on industry facilities and environmental regulations;
- to provide a forum for discussions on nickel issues of interest to nickel producing and consuming countries and their industries, including environmental issues;
- to undertake economic analysis of nickel markets and related topics.

### Members

The following are members of the INSG:

Australia	Greece	Norway	Germany (associate member)
Cuba	Brazil	Portugal	
EC	Italy	Russian Federation	
Finland	Japan	Sweden	
France	Netherlands	United Kingdom	

Members together account for over sixty percent of world nickel mine production, seventy five percent of world primary nickel trade and well over half of nickel usage. The Group is very interested in broadening its membership to include all other countries with an interest in nickel production, usage (consumption) or trade so as to be fully representative of the international nickel economy.

### Products

The INSG initially concentrated on statistics, including the production of a monthly bulletin on world nickel statistics. It also publishes a world directory of nickel production facilities (for INSG publications see inner back cover).

Other outputs, which generally are available to members only, include:

- a semi-annual, short-term forecast of nickel production, usage (consumption) and the market balance;
- the development of a data base on nickel;
- an annual review of new developments in nickel mining, smelting and refining as well as closures.
- an annual compilation of existing or proposed regulations regarding environmental, health and safety concerning nickel.

All enquiries relating to this bulletin should be addressed to Mr. S. Tollin, Chief Statistician.



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## NOTES TO READERS

- Commencing with the October 2007 issue, INSG has made some estimates for primary nickel stocks.
- Commencing with the January 2006 issue, the division between former Eastern and Western countries in the Summary pages has been deleted.
- Commencing with the May 2003 issue, Brazil has been included in the scrap statistics section.
- Commencing with the May 2003 issue, WBMS Producers' Stocks on page 12 have been replaced with INSG Survey of Western World Producers'.
- Commencing with the January 2001 issue, the section of Crude Stainless Steel has been enlarged to also include country information for EU and also monthly production data for each country in EU, Japan and USA. Further China P.R., Estonia, Hong Kong, Latvia and Lithuania trade data have been included in the SCRAP STATISTICS.
- Due to a change in statistical collection procedures in 1997, data reported by the Netherlands now include some transit trade. The reader should be aware that from 1997 these data are not comparable with prior years and is referred to Transit Trade Tables in the Bulletin.
- Commencing with the January 1998 issue, stainless steel and nickel scrap statistics have been included in the Monthly Bulletin. Although key scrap data will be updated monthly, country specific data may vary in each month's issue.
- Commencing with the September 1997 issue, more detailed ferro-nickel export data have been supplied by nickel producers and are being published. Additionally, conversion rates applying to Class II nickel products which are used to calculate the nickel content of imports for determining a country's apparent nickel usage (consumption) will be adjusted quarterly, but will be published with one year delay.
- Commencing with the June, 1997 issue the Monthly Bulletin includes a new table entitled "INSG Survey of World Producers' Nickel Stocks" based on a survey conducted by the INSG. The table contains data detailing nickel stocks held by the world nickel producers and is updated monthly.
- In the summary tables (pp 3-12) the "West" comprises market-economy countries while the "East" includes command-economy (or former command-economy) countries. The distinction between "West" and "East" remains necessary owing to a continued lack of statistics for the "East".
- Blanks shown in tables refer to periods for which data have not been submitted.
- All figures are expressed in nickel content unless stated otherwise.
- In the tables on pp 3-20 figures in bold denote actual data; those in italics denote estimates.
- Tables on nickel trade with total tonnages less than 300t/y are not included in the Bulletin.
- Exports and imports of nickel oxide sinter may include other intermediate products of nickel metallurgy (excluding matte).
- For certain countries usage (consumption) figures are released on an annual basis only.
- Stocks are at the end of period stated.
- Monthly, quarterly and yearly totals may differ from sum of figures because of rounding.
- Cumulative and yearly aggregates may differ from sum of monthly or quarterly figures because of rounding and/or revisions.
- Adjustments are included in certain tables. These are due to differences between reported totals and calculated totals of reported figures.

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## DEFINITIONS AND EXPLANATORY NOTES

### PRODUCTION

#### Mine products

Nickel content reported for laterite based production equals the amount of nickel contained in ores mined. Nickel content reported for sulphide based production equals the amount of nickel contained in concentrate production.

#### Intermediate products

Nickel content reported equals the amount of nickel contained in matte, mixed sulphide concentrates (containing more than 35 per cent combined nickel and cobalt), and other intermediate products of nickel metallurgy, including salts and oxides for further refining.

#### Primary nickel products

Nickel contained in products of smelters and refineries in a form which is ready for use by consumers; this includes:

**Refined nickel (class I)** - products with a nickel content of 99% or more:

- Electrolytic nickel
- Pellets
- Briquettes
- Granules
- Rondelles
- Powder/Flakes

**Charge nickel (class II)** - products with a nickel content of less than 99%:

- Ferro-nickel
- Nickel oxide sinter
- Utility (Japan, Korea, Rep., Taiwan, China)
- Nickel pig iron (China)

#### Chemicals

- Chemical nickel oxide
- Nickel sulphate
- Nickel chloride
- Nickel carbonate
- Nickel acetate
- Nickel hydroxide
- Other salts and chemicals

### USAGE (CONSUMPTION)

Nickel contained in smelter/refinery nickel products used by consumers for the manufacture of products in each of the categories shown below.

**Stainless steels**, other than castings, containing by weight 1.2% or less of carbon and 10.5% or more of chromium, with or without other elements.

**Other alloy steels**, (excluding castings).

**Steel castings, alloyed** (including cast iron).

**Non-ferrous products** (including castings): products of pure nickel (98-100% Ni), nickel base alloys (50-97% Ni), iron-nickel (-chrome) alloys (30-49% Ni), copper base alloys (1-49% Ni) and clad materials.

**Plating:** nickel metal used for plating (N.B. nickel used to manufacture chemicals and nickel chemicals used for plating should be included under "Other uses").

**Other uses:** catalysts, batteries and chemicals.

### TRADE

Quantities of nickel products exported or imported during the period stated. Wherever possible, trade item descriptions are followed by the corresponding code numbers of the Harmonized System (HS). Nickel trade statistics refer to:

- Ores and concentrates (26.04.00)
- Ferro-nickel (72.02.60)
- Waste and scrap of stainless steel (72.04.21)
  - 72.04.21.10 - nickel content 8% or greater,
  - 72.04.21.90 - nickel content less than 8%,
- Nickel matte (75.01.10)
- Nickel oxide sinter and other intermediate products of nickel metallurgy, excluding matte (75.01.20)
- Unwrought nickel, not alloyed (75.02.10)
- Nickel waste and scrap (75.03.00)
- Nickel powder and flakes (75.04.00)

It should be noted that HS 75.01.20 includes intermediate nickel products requiring further processing and not just finished nickel oxide suitable for direct use by consumers.

### STOCKS

Nickel contained in primary nickel products held by nickel producers (and their agents), consumers, commodity exchanges (such as the LME), traders and in government stockpiles. LME stocks are held at various locations in warehouses approved by the LME. Strategic stocks are known to be held in Japan and Russian Federation.

### PRICES

#### LME Prices

The London Metal Exchange (LME) acts as a barometer of nickel supply/demand world-wide. Trading on the LME takes place in two daily sessions (morning and afternoon). The two sessions are each broken down into two rings made up of five minutes trading in each contract (cash and 3-months). The official prices for the day are assessed after the second ring of the morning session by a "quotation committee" in light of the dealings and prices quoted during the day's morning session. LME official nickel prices are used as benchmark prices by the

international trade.

Nickel on the LME is primary nickel of minimum 99.8% purity, in specified forms of cathode, pellets or briquettes. It is traded in lots of 6 tonnes each. All sales due for delivery are backed by warehouse warrants.

**Cash:** the price paid - expressed in US\$ per tonne - for primary nickel, the warrants of which are delivered immediately (the next market day).

**Settlement:** expressed in US\$ per tonne, is equivalent to the seller's cash price.

**3-months:** the price paid - expressed in US\$ per tonne - for primary nickel, the warrants of which are to be delivered in three months time.

Tables reporting LME prices include LME price equivalents in US\$/lb.

**LME turnover**

This is the turnover as released daily by the LME. The official LME turnover includes futures as well as options and reflects trading between all Clearing Members from cash to 27 months and takes into the reckoning client cross-trade.

### GENERAL NOTES

Statistics on mine production and on trade in nickel mine products are normally given in terms of nickel content (exceptions are noted in footnotes). Production and usage (consumption) figures are actual or estimated. Actual figures are generally as reported by government agencies while estimated figures are usually as calculated by the Secretariat. Stocks of refined nickel are as of end of period shown and normally exclude recycled (secondary) nickel. The monthly and annual average prices of the LME nickel market shown in the Bulletin are calculated by the Secretariat based on the number of market days and checked against the averages published

by the Metal Bulletin. Prices are not weighted according to volumes traded.

**World total** refers to all countries (whenever figures are available).

**Blanks** indicate that figures or comparable figures are not to hand.

**Footnotes** are under "Notes to table" below individual tables.

**Quantities** are expressed in **tonnes** (metric tons):

1 tonne (metric ton) = 1000 kg. = 2204.622 lb.  
1 lb. = 0.4536 kg.

### SYMBOLS

In the tables on pp 5-20 of this issue **bold** figures denote actual data and those in *italics* estimates.

The following symbols are used throughout:

*	an asterisk is used to draw the attention of the reader to apparent anomalies	0 or 0.0	less than half the unit employed
	break in series	mc	market closed
-	nil	p	preliminary or provisional
..	not available or not available separately	r	revised
		* *	increase above 300 %.

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- Vale Inco Limited - Brazil/Canada
- Information Center of China National Non-ferrous Metals Industry; Antaike Information Co. Ltd - China, P.R.
- Eurofer - Belgium

- Eramet - France
- Instituto de Metais Não Ferrosos - Brazil
- Japan Mining Industry Association - Japan
- London Metal Exchange (LME) - United Kingdom
- Minerals Bureau - Republic of South Africa
- Mines and Geosciences Bureau - Philippines
- Norilsk Harjavalta Metals Oy - Finland
- Rio Tinto Zimbabwe Limited - Zimbabwe
- US Geological Survey - United States
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# INTERNATIONAL NICKEL STUDY GROUP

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