Entegris

ENTEGRIS, INC.

129 Concord Road
Billerica, MA 01821 USA
Tel. 978-436-6500
Fax 978-436-6735

Mr. Timothy Mooney
Office of Exporter Services
Regulatory Policy Division-BIS
Department of Commerce
1401 Constitution Ave. NW. Room 2705
Washington, DC 20230

Regulations.gov ID: BIS-2010-0039

February 7, 2011

Subject: Comments on Department of Commerce Bureau of Industry and Security Federal Register notice December 9, 2010. Commerce Control List: Revising Descriptions of Items and Foreign Availability

Dear Mr. Mooney:

Entegris, Inc. welcomes the opportunity to comment on how the descriptions of items controlled on the Commerce Control List (CCL) of the Export Administration Regulations (EAR) could be more clear and positive and "tiered" in a manner consistent with the control criteria the Administration has developed. Entegris produces a wide range of fluid and wafer handling components utilized in the semiconductor and microelectronics industries, such as valves, pumps, heat exchangers, and wafer and chip handling equipment.

This letter will outline the details of how ECCN descriptions associated with some of the products Entegris exports could be clarified as well as providing information on foreign availability.

2B350.g.3 Valves, Flow Controllers:

Description Clarification- 2B350.g

Valves with the smallest fluid port internal diameter greater than 1.0 cm (0.394") having casings (valve bodies) or preformed casing liners with wetted surfaces made from the following materials; and, casings (valve bodies) or preformed casing liners designed for such valves with wetted surfaces made from the following materials...

Foreign Availability -

Fluoropolymer valves with diameters greater than 1 cm are produced by a broad spectrum of manufacturers in countries such as Japan, Germany, France, and South Korea.

1C010 Carbon Nano-Tube Resin:

Description Clarification- 1C010.b and 1C010.e. Entegris is a manufacturer of a variety of wafer, chip, and fluid handling components used in semiconductor manufacturing. The resins used in these applications are designed to meet the highly specific technical requirements of the semiconductor applications. We would like to suggest the following clarifications to ECCN 1C010.

b. Carbon "fibrous or filamentary materials", having all of the following:
b.1. "Specific modulus" exceeding 14.65 x 106 m; and
b.2. "Specific tensile strength" exceeding 26.82 x 104 m;

Note: 1C010.b does not control:
a. "Fibrous or filamentary materials", for the repair of "civil aircraft" structures or laminates, having all of the following:
1. An area not exceeding 1 m2;
2. A length not exceeding 2.5 m; and
3. A width exceeding 15 mm.
b. Mechanically chopped, milled or cut carbon "fibrous or filamentary materials" 25.0 mm or less in length.
c. "Fibrous or filamentary materials", for use in semiconductor handling and processing components

e. Fully or partially resin impregnated or pitch impregnated "fibrous or filamentary materials" (prepregs), metal or carbon coated "fibrous or filamentary materials" (preforms) or "carbon fiber preforms", having all of the following:

e.1.b.1. "Specific modulus" exceeding 14.65 x 106 m; and
e.1.b.2 "Specific tensile strength" exceeding 26.82 x 104 m; and

Note: 1C010.e does not control:
a. "Fibrous or filamentary materials", for the repair of "civil aircraft" structures or laminates, having all of the following:
1. An area not exceeding 1 m2;
2. A length not exceeding 2.5 m; and
3. A width exceeding 15 mm.
b. Mechanically chopped, milled or cut carbon "fibrous or filamentary materials" 25.0 mm or less in length.
c. "Fibrous or filamentary materials", for use in semiconductor handling and processing components

Foreign Availability- the material is available from RTP in Singapore and China, Sabic in China, Southeast Asia, South Korea, and Japan, and PolyOne in Singapore, China, India, Europe, and Brazil (*see **Exhibit I***).

http://www.rtpcompany.com/about/facilities/singapore.htm
http://www.rtpcompany.com/about/facilities/suzhou.htm
http://www.sabic.com/asia/en/binaries/sabic_ap_fact_sheet_tcm11-5400.pdf
http://www.polyone.com/en-us/contact/Pages/LocateUs.aspx

Please let me know if any additional information or clarification would be helpful.

Thank you for your support and with best regards,

Lynn Shida
Vice President, Global Logistics
978.436.6661
lynn_shida@entegris.com

The materials integrity management company

Exhibit 1

SINGAPORE

Select Area

- What is Compounding
- Facilities
- History
- Employment

Opened in Spring of 2002, RTP Company's first Asian manufacturing facility is located in Singapore's Jurong Industrial Estate. This plant was expanded in 2004 and 2005 to meet increasing production demands.

Comprising 13,900 meters² (150,000 square feet), our Singapore operation manufactures a broad range of specialty compounds and provides support to customers throughout southeast Asia.

- RTP Company (Singapore) Pte Ltd
  3 Tuas South Street 3
  Singapore 638045
- Telephone: +65 6863 6580
- Fax: +65 6863 2018
- Time zone: +0800 GMT

ISO 9001 REGISTERED FACILITIES

Download ISO 9001 Certificate

Location Directions

Visiting an RTP Company facility? Get location directions to our Singapore plant suitable for printing or saving are available as a PDF (Portable Document Format) file. PDF files require the Acrobat Reader software for viewing.

Key Contacts

- **Tom Gordes**
  Director of Sales—Asia
- **Donny Gan**
  Southeast Asia Sales Manager
- **Yap Wen Haut**
  Colour Account Manager
- **John Hubbard**
  Technical Service Manager
- **Collin Lee**
  Sales Manager—Greater China
- **Wilkin Tang**
  Managing Director—Asia Pacific
- **Go Piang Wee**
  Southeast Asia Sales Manager

INTERACT WITH RTP COMPANY

- *Ask Our Engineers* — Material recommendations
- *People Finder* — Sales engineers and customer service representatives
- *Literature Request* — Request printed brochures
- *E-mail RTP Company* — Comments and general inquiries

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Corporate Headquarters:
U.S. (toll-free 1-800-433-4797 • Voice (507) 454-6900 • Fax (507) 454-2641
RTP Company • 580 East Front Street • Winona, MN 55987, USA
Internet www.rtpcompany.com • E-mail rtp@rtpcompany.com

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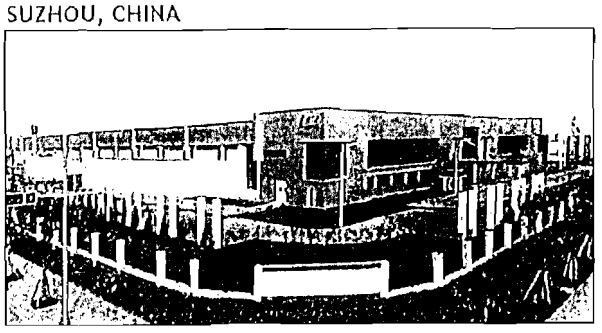
SUZHOU, CHINA



About RTP

- What is Compounding
- Facilities
- History
- Employment

Opened in December of 2005, RTP Company's second Asian manufacturing facility is located in the Suzhou Industrial Park, 85 kilometers (50 miles) west of Shanghai, China

Comprising 16 000 meters² (170,000 square feet), our Suzhou operation manufactures a broad range of specialty compounds and provides support to customers throughout China

- RTP Company (Suzhou), Ltd
  123 Ting Lan Lane
  Suzhou 215126
  China
- Telephone +86 512 62 83 83 83
- Fax +86 512 62 83 83 33
- Time zone: +0800 GMT

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Visiting an RTP Company facility? Get location directions to our Suzhou China, plant suitable for printing or saving are available as a PDF (Portable Document Format) file. PDF files require the Acrobat Reader software for viewing

Key Contacts

- **Tom Cordes**
  Director of Sales—Asia
- **Collin Lee**
  Sales Manager—Greater China
- **Dick Zhu**
  General Manager—RTP Suzhou

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RTP Company • 580 East Front Street • Winona, MN 55987, USA
Internet www.rtpcompany.com • E-mail rtp@rtpcompany.com

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SELECTING A CUSTOM ENGINEERED PLASTIC COMPOUND

The material development process at RTP Company begins with your application

We independently select the proper resin, additives, modifiers, fillers, reinforcing agents, and colorants to meet your performance and cost requirements. Once your compound properties are approved samples may be produced for pre-production trials

From concept to production, our engineers and technical specialists are with you every step of the way to ensure a consistent, quality product with some of the shortest lead times in the industry

We pair imagination with engineering to successfully *imagineer* a specialty compound with one or more of the following characteristics

Product Guide
- Product Guide
- Color
- Conductive
- EMI Shielding
- Thermoplastic Elastomer
- Flame Retardant
- High Temperature
- Structural
- Wear Resistant
- Value Products
- Sheet & Film Products

Product Guide

- **Color**
  Our color experts consider resin, additive(s), lighting, and texture to create various levels of color matches. Special effects such as glow-in-the-dark, chroma-shift, and metallics enhance your products consumer appeal
- **Conductive & Anti-static**
  Our thermoplastics are compounded with a variety of standard or all-polymeric fillers to provide permanent anti-static properties and/or protection from electrostatic discharge (ESD)
- **EMI Shielding**
  These compounds are ideal for applications where EMI interference can cause damage or interrupt the reliable operation of electronic components
- **Thermoplastic Elastomer**
  Thermoplastic elastomer compounds combine the functional performance and properties of thermoset rubbers with the processing ease and design flexibility of thermoplastics
- **Flame Retardant**
  We can help you meet UL 94 or other flammability compliance requirements with halogen or non halogen compounds that may include other properties such as conductivity, wear resistance and structural reinforcement
- **High Temperature**
  Materials for use nearing 300 F (150 C) and greater are available in various forms meeting rigorous tests for heat deflection, flammability, and other thermal performance measurements
- **Structural & Reinforced**
  These materials are engineered for strength using varying lengths of glass fiber, carbon fibers, and other additives to meet the unique demands of your application. Short, advanced, and long fiber compounds are all included in this product family
- **Wear Resistant & Lubricated**
  These internally lubricated thermoplastics extend part life and lower the coefficient of friction to minimize volumetric material loss. Eliminating external lubricants helps keep mechanisms and components clean, enhancing long-term performance and reliability.
- **Value Products**
  A line of industry standard formulations with typical properties offered at competitive prices, suitable for applications that do not require a custom engineered compound but benefit from use of a reinforced material
- **Sheet & Film Products**
  Our Sheet & Film Division is an innovative supplier of extruded specialty plastic sheet, rollstock and film products for industrial and medical applications

INTERACT WITH RTP COMPANY

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Material recommendations

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Corporate Headquarters
U.S. toll-free 1-800-433-4767 • Voice (507) 454-6900 • Fax (507) 454-2041
RTP Company • 580 East Front Street • Winona, MN, 55987, USA
Internet www.rtpcompany.com • E-mail info@rtpcompany.com
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The materials integrity management company

SABIC Factsheet

Global Overview

SABIC's 2020 vision is to be the preferred world leader in chemicals.

- Established in 1976, headquartered in Riyadh, Saudi Arabia
- Global Revenue & Production in 2009:
  - Sales revenue SR 103 billion (US$ 27 billion)
  - Total assets: SR 297 billion (US$79.2 billion)
  - Production: 59 million tons
- SABIC ranks among the world's top petrochemical companies:

  #1 in the world in the production of: Mono-ethylene Glycol, MTBE, Granular Urea, Polyphenylene and Polyether Imide
  #2 in Methanol and Polycarbonate
  #3 in Polyethylene, Polybutylene Teraphtalate, Engineering plastics and its compounding
  #4 in Polypropylene and Polyolefins
- Strategic Business Divisions & its products
  - *Chemicals:* Olefins, oxygenates, aromatics, fiber intermediates, industrial gases, linear alpha olefins
  - *Polymers:* PE, PP, PET, PVC, PS
  - *Innovative Plastics:* lexan, noryl, ultem, valox and xenoy resins, LNP specialty compounds, polycarbonates, ABS, Exatec automotive glazing
  - *Performance Chemicals:* ethoxylates, ethanolamines
  - *Fertilizers:* urea, ammonia and phosphates
  - *Metals:* flat steel, long steel
- 33,000 employees and operations in more than 40 countries and 213 sites

- More than 60 world-class manufacturing and compounding plants in locations across the Middle East, Asia Pacific, Europe and the Americas
- We have a strong culture of innovation:
  - 6 Technology and Innovation centers in Saudi Arabia, Netherlands, the United States and India
  - 10 Application Centers in the United States, Netherlands, China, Spain, Japan and India
  - Backed by more than 7,000 global patents
  - Technology and Innovation organization develops more than 150 new products every year

Asia Pacific Overview

- Established in 1985
- SABIC Asia Pacific has been experiencing strong double digit growth
- 38 office locations in Shanghai, Hong Kong, Qingdao, Suzhou, Tianjin, Taipei, Beijing, Chengdu, Dalian, Guangzhou, Hangzhou, Xiamen and Shenzhen, Gurgaon, Bangalore, Mumbai, Chennai, Pune, Seoul, Daegu, Tokyo, Kariya, Osaka, Melbourne, Adelaide, Sydney, Bangkok, Penang, Kuala Lumpur, Singapore, Ho Chi Minh, Hanoi, Jakarta, and Manila
- 10 manufacturing sites in China (Shanghai, Nansha, Zhongshan, Tianjin), Southeast Asia (Baroda, Rayong, Beol, Kleng), South Korea (Chunju), and Japan (Maka)
- 5 Technology & Innovation centre in Shanghai, Bangalore, Vadodra, South Korea, and Japan
- More than 2500 employees in Asia Pacific

10 July 2010

Overview

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ISO Certifications

Quality Survey Response

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What If: Learn how PolyOne can create value for you

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Global Email Disclaimers

PolyOne Global Facilities

This comprehensive list includes all PolyOne global sales offices, regional headquarters and manufacturing facilities. Please note the facility type and the relevant business unit.

Current or potential customer? Click "Phone Us" to find the appropriate sales office for your area and interest

Current or potential supplier? Please direct your inquiries to the appropriate regional headquarters facility.

Looking for information and details about PolyOne's operations and quality proceedures? Download PolyOne's Quality Survey Standard Response Document

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Asia / Pacific Regional Headquarters
Regional Headquarters
No. 88 Guoshoujing Road
Z J Hi-tech Park, Pudong
Shanghai, China 201203
Telephone: +86 (0) 21 5080 1168
Fax: 86 (0) 21 5080 1199

China - Dongguan Sales Office & Plant
Geon Compounds
Sales Office, Plant
Ch Ling Industrial Zone
Houjie Town, Dongguan City, GuangDong Province 523940
Telephone: + 86 (0) 769 8587 6800
Fax: + 86 (0) 769 8587 6700

China - GLS Thermoplastic Elastomers Asia / Pacific Headquarters
Sales Office, Plant
77 Shenggang Street, SIP
Suzhou Jiangsu 215021
Telephone: +86 512 6265 2800
Fax: +86 512 6265 2700

China - Guangzhou Sales Office
Thermoplastic Elastomers
Sales Office
Rm 2808, Dongshan Plaza, No 69, Mid Xianlie Road, Dongshan District
Guangzhou Guangdong 510000
Telephone: 011 86 (0) 20 8732 7260
Fax: 011 86 (0) 20 8732 7262

China - Shanghai Innovation Center, Sales Office & Plant
Color & Additives,ECCOH High Performance Solutions,Specialty Engineered Materials
Innovation Center, Sales Office, Plant
No. 88 Guoshoujing Road
Z J Hi-tech Park, Pudong
Shanghai 201203
Telephone: +86 (0) 21 5080 1188
Fax: 86 (0) 21 5080 1199

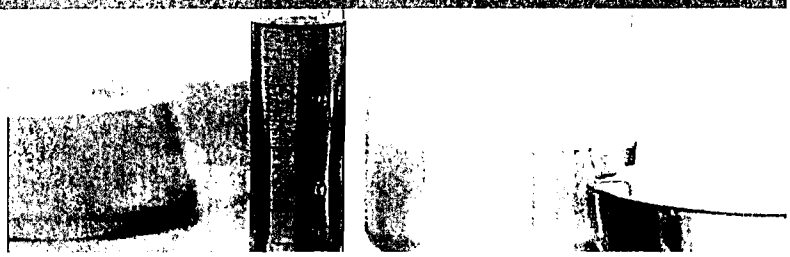
China - Shenzhen Sales Office & Plant
Color & Additives,ECCOH High Performance Solutions,Specialty Engineered Materials,Specialty Inks & Polymer Systems
Sales Office, Plant
No.1 QiHang Industrial Park,
HaoXiang Road, Shajing Town,BaoAn District
Shenzhen 518104
Telephone: +86 (0) 755 2989 2888
Fax: 86 (0) 755 2989 2999

China - Suzhou Innovation Center, Sales Office & Plant
Specialty Engineered Materials
Innovation Center, Sales Office, Plant
No. 28 HenShan Road, Suzhou New District
Suzhou 215009
Telephone: +86 (0) 512 6823 24 38
Fax: 86 (0) 512 6823 85 04

China - Tianjin Sales Office, Plant & Lab
Color & Additives
Laboratory, Sales Office, Plant
No. 264C Jin Bin Hi-Tech Industrial Park
155 HanHai Road
Tianjin Economic-Technological Development Area
Tianjin 300457
Telephone: +86 (0) 22 2532 8818
Fax: +86 (0) 22 2532 8345

Hong Kong - GLS Thermoplastic Elastomers Sales Office
Thermoplastic Elastomers
Sales Office
Wing Hing Industrial Building, Unit A 5 th Floor - No 459 Castle Peak Road - Kowloon
Telephone: +852 2850 5332

India - Mumbai Sales Office & Plant
Color & Additives ECCOH High Performance Solutions,Specialty Engineered Materials,Thermoplastic Elastomers
Sales Office, Plant
A-759, MIDC, TTC Industrial Area, Koper Khairane
Navi Mumbai 400703
Telephone: +91 22 2778 4428/22761218
Fax: +91 22 2778 4428



Products & Services

We offer many families of materials to help solve the demanding application needs of our customers. Our solutions are the right choice for customers who want to achieve profit and growth with innovative products, enter new markets, expand globally and much more.

Working with our customers to understand their business challenges and technical requirements, we help them create marketable products – with the goal of delivering solutions with meaningful and measurable value.

Our Product Families

- BIO-RELATED PRODUCTS
- COLOR & ADDITIVE CONCENTRATES
- ENGINEERED RESINS & COMPOUNDS
- GENERAL PURPOSE RESINS & COMPOUNDS
- LOW SMOKE AND FUME, ZERO HALOGEN (LSFOH) COMPOUNDS
- NATURAL RUBBER LATEX COMPOUNDS
- PLASTICIZERS
- POLYONE DISTRIBUTION
- SCREEN PRINTING INKS & DYES
- THERMOPLASTIC ELASTOMERS
- VINYL DISPERSION & BLENDING RESINS
- VINYL EXTRUSION & MOLDING COMPOUNDS