



## SAFETY DATA SHEET

### Asia Pacific GHS Format

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#### 1. IDENTIFICATION OF THE SUBSTANCE AND COMPANY

<b>Trademark:</b>	CYCOLOY™
<b>Product Code:</b>	C6200 - GY8A242
<b>Product Description:</b>	Poly (bisphenol-A-carbonate) [CASRN 111211-39-3]/Poly (acrylonitrile-butadiene-styrene) [CASRN 9003-56-9] blend
<b>Product Type:</b>	Commercial Product
<b>Recommended use:</b>	May be used to produce molded or extruded articles or as a component of other industrial products.
<b>Company:</b>	<ul style="list-style-type: none"><li>-SABIC Japan LLC. Tokyo Club Building, 2-6 3Chome Kasumigaseki, Chiyoda-Ku Tokyo, 100-0013 Japan</li><li>-SABIC Innovative Plastics (China) Ltd.or SABIC Innovative Plastics International Trading Shanghai Ltd. 2550 Xiupu Road, Pudong New Area, Shanghai 201319, China (Contact address)</li><li>-SABIC Korea Ltd. 20F, Donghoon Building, 317, Teheran-ro, Seoul, Korea</li><li>-SABIC Innovative Plastics Singapore Pte Ltd 23, Benoi Road, 629895 Singapore</li><li>-SABIC Innovative Plastics (Thailand) Co. Ltd 64/22 Moo 4 Tumbol Pluak Daeng, Amphur Pluak Daeng,Rayong 21140 Thailand</li><li>-SABIC Innovative Plastics India Ltd. Plastics Avenue, P.O. Jawaharnagar,District Vadodara 391320 India</li><li>-SABIC Taiwan Holding Ltd, Taiwan Branch, Room B,7F,No. 8,Min-Sheng E. Rd. Sec. 3,Taipei City 10480 Taiwan</li><li>-SABIC Innovative Plastics Hong Kong Limited. Flat/ RM 1701, Tower 1, the Gateway 25 Canton Road, Tsimshatsui, Hong Kong</li><li>-SABIC Innovative Plastics (Aust.) Pty. Ltd. Suite 14, Building 3, 195 Wellington Road, Clayton, Victoria, Australia 3168</li></ul>
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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Product Type Mixture

#### HAZARDOUS COMPONENTS:

Chemical Name	CAS Number	Weight %	GHS Classification (EC) No. 1272/2008 [CLP]:
Titanium dioxide	13463-67-7	1-5	
Nickel antimony titanium oxide yellow	8007-18-9	0.1 - <0.3	Acute Tox. 4 (H332) Acute Tox. 4 (H302) Aquatic Chronic 2 (H411)

For the full text of the H-statements, if mentioned in this section, see Section 16.

The non-hazardous components and exact percentage (concentration) of the composition have been withheld as a trade secret.

This product consists primarily of high molecular weight polymers which are not expected to be hazardous. The ingredients in this product are present within the polymer matrix and are not expected to be hazardous.

### 4. FIRST AID MEASURES

<b>If Inhalation:</b>	Move to fresh air in case of accidental inhalation of fumes from overheating or combustion. If symptoms persist, call a physician.
<b>On skin contact:</b>	Immediately cool the skin by rinsing with cold water after contact with hot material. Wash off immediately with soap and plenty of water. Consult a physician.
<b>On contact with eyes:</b>	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. If eye irritation persists, consult a specialist.
<b>On ingestion:</b>	No hazards which require special first aid measures.
<b>Precautions:</b>	Processing vapors inhalation may be irritating to the respiratory tract. If symptoms are experienced remove victim from the source of contamination or move victim to fresh air and obtain medical advice.

## 5. FIRE-FIGHTING MEASURES

**Autoignition Temperature:** Not determined

**Explosive Limits**

**upper:** Not determined  
**lower:** Not determined

**Suitable Extinguishing Media:** Water spray mist or foam. Use dry chemical, CO<sub>2</sub>, water spray or "alcohol" foam. Water is the best extinguishing medium. Carbon dioxide and dry chemical are not generally recommended because their lack of cooling capacity may permit re-ignition on larger resin fires (blobs, drools, etc.).

**Unsuitable Extinguishing Media for Safety Reasons:** Carbon dioxide and dry chemical are not recommended because their lack of cooling capacity may permit re-ignition, Do not use a solid water stream as it may scatter and spread fire.

**Hazards from Combustion Products:** Fire will produce dense black smoke containing hazardous combustion products, carbon oxides, hydrocarbon fragments, hydrogen cyanide, nitrogen oxides.

**Specific Hazards:** Take precautionary measures against static discharges. During processing, dust may form explosive mixture in air. Thermal decomposition can lead to release of irritating gases and vapors.

**Special Protective Equipment for Firefighters:** Do not enter fire area without proper protection including self-contained breathing apparatus and full protective equipment. Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products.

**Exposure hazards:** Do not release chemically contaminated water into drains, soil or surface water. Sufficient measures must be taken to retain the water used for extinguishing. Dispose of contaminated water and soil according to local regulations.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** See section 8.

**Environmental Precautions:** Do not flush into surface water or sanitary sewer system. Material should not be released into the environment.

**Clean up:** Sweep up and shovel into suitable containers for disposal. Do not create a powder cloud by using a brush or compressed air.

## 7. HANDLING AND STORAGE

**Handling:** Handle in accordance with good industrial hygiene and safety practices Provide for appropriate exhaust ventilation and dust collection at machinery Avoid dust formation All metal parts of the mixing and processing equipment must be earthed

**Storage:** Store in closed container in a dry and cool area. Keep away from heat sources and sources of ignition. Keep away from food, drink and animal feeding stuffs. Keep container tightly closed in a dry and well-ventilated place.

**Incompatible Products:** Strong acids, strong oxidizing agents.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Exposure limits:** No components with information, unless noted below

Chemical Name	US OSHA PEL (8 Hr)	Japan OEL(TWA)	China OEL(TWA)	Korea OEL(TWA)	Singapore OEL(TWA)	Thailand OEL(TWA)
Titanium dioxide 13463-67-7	FRL_TWA: 5 mg/m <sup>3</sup> Respirable fraction , 10 mg/m <sup>3</sup> Total dust ; TL_PEL: 5 mg/m <sup>3</sup> Respirable fraction , 15 mg/m <sup>3</sup> Total dust	1 MGM3 4 MGM3	8 MGM3 Total dust.	TWA: 10 mg/m <sup>3</sup>	PEL_LT: 10 mg/m <sup>3</sup>	No Information
Nickel antimony titanium oxide yellow 8007-18-9	FRL_TWA: 1 mg/m <sup>3</sup> as Ni ; TL_PEL: 1 mg/m <sup>3</sup> as Ni	0.1 MGM3	0.5 MGM3 Sb 1 MGM3 Ni 0.5 MGM3 Ni	TWA: 0.5 mg/m <sup>3</sup> as Sb	0.5 MGM3  1 MGM3  0.1 MGM3	1 MGM3 Ni

Chemical Name	India TWA	Malaysia OEL(TWA)	Taiwan OEL(TWA)	Australian OEL(TWA)	Phillipines OEL(TWA)	SABIC Recommend (8 Hr)*
Titanium dioxide 13463-67-7	No Information	PEL_TWA8: 10 mg/m <sup>3</sup>	PC: 10 mg/m <sup>3</sup>	No Information	15 MGM3	No Information
Nickel antimony titanium oxide yellow 8007-18-9	No Information	PEL_TWA8: 0.5 mg/m <sup>3</sup> as Sb	PC: 1 mg/m <sup>3</sup> as Ni	No Information	0.5 MGM3  1 MGM3	No Information

\*SABIC Recommended Exposure Limits have been established for certain chemicals.

**Engineering Measures to Reduce Exposure:**

Handle in accordance with good industrial hygiene and safety practices. Provide for appropriate exhaust ventilation at machinery. Processing fume condensate may be a fire hazard and toxic; remove periodically from exhaust hoods, ductwork, and other surfaces using appropriate personal protection.

**Hand Protection:**

Protective gloves should be worn

**Eye Protection:**

Safety glasses with side-shields or chemical goggles. In addition, use full-face shield when cleaning processing vapor condensates from hood, ducts, and other surfaces.

**Respiratory Protection:**

When using this product at elevated temperatures, implement engineering systems, administrative controls or a respiratory protection program (including a respirator approved for protection from organic vapors, acid, gases, and particulate matter) if processing vapors are not adequately controlled or operators experience symptoms of overexposure. If dust or powder are produced from secondary operations such as sawing or grinding, use a respirator approved for protection from dust.

**Body Protection:**

Long sleeved clothing

**Hygiene Measures:**

When using, do not eat, drink or smoke.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State:</b>	Solid
<b>Appearance:</b>	Pellets
<b>Color:</b>	Varies Same as color code
<b>Odor:</b>	None or slight
<b>Melting point/range:</b>	This product does not exhibit a sharp melting point but softens gradually over a wide range of temperatures.
<b>Autoignition Temperature:</b>	Not determined
<b>Vapor Pressure:</b>	Negligible
<b>Water Solubility:</b>	Insoluble
<b>Evaporation Rate:</b>	Negligible
<b>Explosive Limits</b>	
<b>upper:</b>	Not determined
<b>lower:</b>	Not determined
<b>Specific gravity:</b>	>1; (water = 1)
<b>VOC content (%):</b>	Negligible

## 10. STABILITY AND REACTIVITY

<b>Reactivity:</b>	Not reactive under recommended conditions of handling, storage, processing and use. No information available.
<b>Stability:</b>	Stable under ambient conditions. Hazardous polymerization does not occur.
<b>Conditions to Avoid:</b>	To avoid thermal decomposition, avoid elevated temperatures. Heating can result in the formation of gaseous decomposition products, some of which may be hazardous. Do not exceed melt temperature recommendations in product literature. Purgings of hot material should be collected in small, flat, thin shapes and quenched with water to allow for rapid cooling. Do not allow product to remain in barrel at elevated temperatures for extended periods of time.
<b>Materials to Avoid:</b>	May react with strong oxidizing agents, strong acids or other highly reactive chemicals
<b>Hazardous Decomposition Products:</b>	Process vapors under recommended processing conditions may include trace levels of hydrocarbons, phenols, alkylphenols, diarylcarbonates, styrene, acrylonitrile, acrolein, acetophenone, acetaldehyde, cumene, alpha methylstyrene, 4-vinylcyclohexene.

## 11. TOXICOLOGICAL INFORMATION

### Acute Toxicity

**Product Information:**

LD50/oral/rat: >5000 mg/kg

LD50/dermal/rabbit: >2000 mg/kg

**Component Information:**

Component Information Text: No data available

### Sensitization

Respiratory Sensitization: Not classified

### Irritation:

Eye Irritation: no data available

Primary Irritation: Substance does not generally irritate and is only mildly irritating to the skin

### Subchronic Toxicity (28 days)

Repeated Oral Toxicity(28d): No information available

Repeated Dermal Toxicity(28d): No Information available

Subchronic Toxicity: No information available

### Chronic Toxicity

Carcinogenicity: There are no known carcinogenic chemicals in this product above de minimus reporting levels, except as specifically mentioned below.

Chemical Name	IARC:
Titanium dioxide 13463-67-7	2B
Nickel antimony titanium oxide yellow 8007-18-9	1

Mutagenic Effects: No data is available on the product itself

Reproductive Toxicity: No information available

Developmental Toxicity: No information available.

Neurological effects: No information available.

### Specific Target Organ

#### Toxicity(STOT)

Target Organ Effects: Not established.

### Aspiration Hazard

Aspiration Hazard Statement: No data available

### Other relevant toxicity information

IARC: Not listed

OSHA: Not regulated

NTP: Not tested

Remarks: The toxicological data has been taken from products of similar composition.

### Special Studies:

Titanium Dioxide: The International Agency for Research on Cancer (IARC) has determined titanium dioxide to be a possible human carcinogen (class 2B) based on evidence in experimental animals. Rats exposed to high doses of titanium dioxide by inhalation or intratracheal instillation showed an increased incidence of lung tumors.

## 12. ECOLOGICAL INFORMATION

#### Ecotoxicity

##### **Component Information:**

##### **Product Information:**

##### **Other information:**

Ecological damages are not known or expected under normal use.

#### Persistence and Degradability

##### **Biodegradation:**

Not inherently biodegradable

##### **Partition coefficient (n-octanol/water)**

Not established.

#### Bioaccumulative Potential:

##### **Bioaccumulation:**

Not established.

#### Mobility

##### **Mobility:**

May be separated mechanically in waste water plants.

#### Other Adverse Effects

##### **Ecotoxicity Effects:**

Do not flush into surface water or sanitary sewer system.

### **13. DISPOSAL CONSIDERATIONS**

##### **Waste from residues / unused products:**

Where possible recycling is preferred to disposal or incineration. Descartar em conformidade com as legislação locais.

##### **Contaminated Packaging:**

Empty containers should be transported/delivered using a registered waste carrier for local recycling or waste disposal.

##### **Waste Disposal:**

Recycling is encouraged. Landfill or incinerate in accordance with federal, state and local requirements. Collected processing fume condensates and incinerator ash should be tested to determine waste classification.

### **14. TRANSPORT INFORMATION**

##### **Transport Classification:**

Not regulated as hazardous for shipment, unless noted below, under current transportation guidelines.

##### **IMO / IMDG**

Not regulated

##### **ICAO**

Not regulated

##### **IATA-DGR**

Not regulated

##### **DOT**

Not regulated

##### **ADR/RID**

Not regulated

##### **ADR**

Not regulated

##### **ADN**

Not regulated



## 15. REGULATORY INFORMATION

### International Inventories:

<b>TSCA (USA):</b>	Listed
<b>DSL (Canada):</b>	Listed
<b>EINECS/ELINCS (Europe):</b>	Listed
<b>ENCS (Japan):</b>	Listed
<b>IECSC (China):</b>	Listed
<b>KECL (Korea):</b>	Listed
<b>PICCS (Philippines):</b>	Listed
<b>AICS (Australia):</b>	Listed
<b>NZIoC (New Zealand):</b>	Listed

### Other Inventory Information:

A "Listed" entry above means all chemical components are on the respective inventory list and/or a qualifying exemption exists for one or more components. A "Not listed" entry above indicates one or more components is restricted from import or manufacture into that country/region. Articles are exempt from registration and are therefore not listed on the national chemical inventories.

### SVHC (REACH Regulation (EC) No 1907/2006 and 453/2010, as amended):

This product does not intentionally contain SVHC chemicals except as noted below. Incidental amounts of impurities, if present, would be below the threshold limit of 0.1% by weight.

### SARA (313) Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA):

This product contains a chemical or chemicals that are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Chemical Name	CAS Number	Weight %	CERCLA/SARA 313 de minimus:
Nickel antimony titanium oxide yellow	8007-18-9	0.1 - <0.3	0.1

### SARA (311, 312) hazard class:

<b>Acute Health Hazard</b>	N
<b>Chronic Health Hazard</b>	N
<b>Fire Hazard</b>	N
<b>Sudden Release of Pressure Hazard</b>	N
<b>Reactive Hazard</b>	N

### Canada:

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR. Unless noted below, this product is non-controlled. Some classifications may not apply to the entire product.

### California Proposition 65:

Components in this product known to the State of California to cause cancer and/or reproductive effects, are listed below:

Chemical Name	Weight %	California Proposition 65:
Titanium dioxide 13463-67-7	1-5	Listed: September 2, 2011 Carcinogenic. (airborne, unbound particles of respirable size)
Nickel antimony titanium oxide yellow 8007-18-9	0.1 - <0.3	Listed: May 7, 2004 Carcinogenic. (as nickel compounds)
Carbon black 1333-86-4	0.01-0.10	Listed: February 21, 2003 Carcinogenic. (airborne, unbound particles of respirable size)
4,4'-isopropylidenediphenol (bisphenol A) 80-05-7	≤100 ppm	Listed: May 11, 2015 Type of Toxicity: Female
Cumene 98-82-8	≤10 ppm	Type of Toxicity: cancer
Methylene chloride 75-09-2	≤10 ppm	Type of Toxicity: cancer
Acrylonitrile 107-13-1	≤10 ppm	Type of Toxicity: cancer

Ethylbenzene 100-41-4	≤10 ppm	Type of Toxicity: cancer
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**RoHS EU Directive 2011/65/EU:**

The subject product is in compliance with EU RoHS Directive 2011/65/EU. All below chemicals are not employed in the manufacture of the product: a.Cadmium and its compounds, b.Lead and its compounds, c.Mercury and its compounds, d.Hexavalent chromium compounds, e.Polybrominated biphenyls (PBBs), f.Polybrominated diphenyl ethers (PBDEs including Deca-BDE). The trace levels of heavy metals may be present as impurities within threshold limits (<0.1% for Pb, Hg, Cr VI, and <0.01% for Cd). We are disclosing this information, to the best of our knowledge, based upon data from our raw material manufacturers.

**Remarks:**

This product consists primarily of high molecular weight polymers which are not expected to be hazardous. The ingredients in this product are present within the polymer matrix and are not expected to be hazardous.

**HMIS Rating**

**Health:** 0

**Flammability:** 1

**Reactivity:** 0

## 16. OTHER INFORMATION

### Full text of H-Statements referred to under sections 2 and 3

H332 - Harmful if inhaled

H302 - Harmful if swallowed

H411 - Toxic to aquatic life with long lasting effects

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<http://eur.sabic-ip.com/ordeur/pages/msds/MSDSSearch.jsp?app=sabic-ip>

### SDS Scope:

Singapore: Conforms to Singapore workplace Safety and Health (WSH) Act, WSH Regulations, and GHS Standard 586  
China: Conforms to Chinese Regulation on the Control over Safety of Hazardous Chemicals (Decree No 591) and GHS standards GB15258, GB13698, GB/T16483 etc.

Japan: Conforms to Industrial Safety and Health Law (2006) and GHS related Standards JIS Z7253:2012

Korea: Conforms to Industrial Safety & Health Act, Ministry of Labor, Korea

Taiwan: Conforms to Taiwan Rules on Hazard Communication and Labeling of Hazardous Substances, (Council of Labor Affairs, Taiwan) and GHS standards Z1051

Thailand: Conforms to Notification of the Ministry of Industry on the System of Classification and Hazard Communication of Hazardous Substances B.E. 2555 (2012)

Australia: National Code of Practice for the Preparation of Material Safety Data Sheets 2nd Edition [NOHSC:2011 (2003)]

This document is also applicable in other countries and regions.

### Prepared by:

Product Stewardship & Toxicology

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**End of Safety Data Sheet**