

# MATERIAL SAFETY DATA SHEET

Date of Issue: January 5, 2010  
SDS No.: SP-001  
Version: 001



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

This product is a writing instrument to be recognized as Article.

### 1.1. Identification of the substance or preparation

Product name : G-2  
Product code : BG2, G23, G25, G27, G21, G2S7

1.2. Use of the preparation : Ink for writing instrument

### 1.3. Company identification e-mail address

Name of manufacture / supplier : PILOT CORPORATION OF AMERICA  
Address : 3855 Regent Blvd., Jacksonville, FL 32224  
Telephone number : 904-645-9999  
Working hours (from 08.30am to 04.30pm: EST)  
Facsimile number : 904-996-2974

## 2. HAZARDS IDENTIFICATION

.Physical /Chemical hazards : Not applicable.

Environmental hazards : Not applicable.

Effect of exposure : Not applicable.

### Symptom of exposure

Inhalation : Intentional exposure to ink vapors may cause respiratory irritation.  
Ingestion : May cause upset stomach.  
Skin contact : Ink contact with skin may cause irritation, swelling, or redness.  
It is not expected to cause an allergic skin reaction.  
Eye contact : Ink contact with eye may be mildly irritating

PIL31277, PIL31278, PIL31279, PIL31002, PIL31003, PIL31004, PIL31005, PIL31006,  
PIL31020, PIL31021, PIL31022, PIL31025, PIL31029, PIL31187, PIL31128, PIL31256,  
PIL31257, PIL31258, PIL77287, PIL77232, PIL77233, PIL77234, PIL77240, PIL77241,  
PIL77242, PIL77243, PIL77244, PIL77289, PIL77290

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### 3. COMPOSITION / INFORMATION ON INGREDIENTS

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For ink unless otherwise specified

Ingredients	CAS Number	EINECS Number	Weight %	Component
Ethylene glycol	107-21-1	203-473-3	17-24	All Colors
Triethanolamine	102-71-6	203-49-8	1.3-7.0	All Colors

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### 4. FIRST AID MEASURES

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- Inhalation : Remove subject to ventilated fresh air. Consult physician if necessary.
- Ingestion : Refer for medical attention.
- Skin contact : Wash the affected area under tepid running water using a mild soap.  
And refer for medical attention if irritation continues.
- Eye contact : Gently rinse the affected eyes with clean water for at 15 minutes.  
And refer for medical attention if irritation continues.
- First aid facilities : Ensure eyewash and water service are available.
- Medical attention
- Local contamination  
: In case of skin or eye contamination treat as under First Aid Measures.
- Systemic poisoning  
: There is no specific antidote. Treat symptoms.

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### 5. FIRE-FIGHTING MEASURES

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- 5.1 Suitable extinguishing media : Not classed as flammable.  
In case of fire, use water spray, foam, dry, chemical powder or carbon dioxide.
- 5.2 Extinguishing media which shall not be used for safety. : None.
- 5.3 Special exposure hazards arising from the substance or preparation itself, combustion products : CO<sub>2</sub>, CO, NO<sub>x</sub>, and SO<sub>x</sub>, is produced after combustion.
- 5.4 Special protective equipment for fire-fighters. : Not required.
- 5.5 Additional information :None.

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### 6. ACCIDENTAL RELEASE MEASURES

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- 6.1 Personal precautions : Use proper ventilation. Use eye and skin protection.
- 6.2 Environmental precautions : Do not dispose of waste to the sewer.

- 6.3 Methods for cleaning up : Absorb spill with material (cloth or paper), then place in a chemical waste containers.
- 6.4 Additional information :None.

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## 7. HANDLING AND STORAGE

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- 7.1. Handling : Avoid rough handling or dropping.
- 7.1.1 Protective measures : Not required in normal use.
- 7.1.2 Measures to prevent aerosol and dust generation : Not required in normal use.
- 7.1.3 Measures required to protect the environment : Not required in normal use.
- 7.1.4 Specific requirements or handling rules : None.
- 7.1.5 Precautions against fire and explosion : Not required in normal use.
- 7.2. Storage : Store in a dry, cool, well-ventilated location.
- 7.3. Specific use(s) : Not use it except the ink for writing instruments.

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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- 8.1. Exposure limit values : Not available.
- 8.1.1 Occupational exposure controls. : Not available.
- 8.1.2 Biological limit values. : Not available.
- 8.1.3 DNEL and PNEC-value(s) as applicable : No data.
- 8.2. Exposure controls
- 8.2.1. Occupational exposure controls
- a) Respiratory protection : Not required in normal use
- b) Hand protection : Not required in normal use
- c) Eye protection : Not required in normal use
- d) Skin protection : Not required in normal use
- 8.2.2. Environmental exposure controls : No data.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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For ink unless otherwise specified

### 9.1. General information

- Appearance : Viscosity liquid  
Color Black , Red , Blue, Green, Blue Black, Violet, Pink, Dark Red,  
Light Blue, Orange, Hunter Green, Peacock Green, Sky Blue,  
Lime Green, Caramel
- Odor : Slight characteristic.

### 9.2. Important health, safety and environmental information

- PH : 8-10
- Boiling point / boiling range : About 100 degrees Celsius.
- Flash point : Boils without flashing.
- Flammability (solid, gas) : None.
- Explosive properties : None.
- Oxidizing properties : None.

Vapor pressure	: No data.
Relative density	: 1.10-1.12 (at 20 degrees Celsius)
Solubility	: Not allocated.
Water solubility	: Soluble.
Partition coefficient: n-octanol / water	: Not available.
Viscosity	: $\approx 2,000 \text{ mPa}\cdot\text{s}$ ( $1.9 \text{ S}^{-1}$ at 20 degrees Celsius)
Vapor density	: No data.
Evaporation rate	: No data.

9.3. Other information : None.

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## 10. STABILITY AND REACTIVITY

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10.1. Conditions to avoid	: This material is stable.
10.2. Materials to avoid	: This material is stable.
10.3. Hazardous decomposition products	: No data.

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## 11. TOXICOLOGICAL INFORMATION

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For ink unless otherwise specified

11.1 Toxicokinetics, metabolism and distribution	: No data.
11.2 Acute effects (acute toxicity, irritation and corrosivity)	:
Ethylene glycol	LD50 4,700 mg/kg (rat)
Triethanolamine	LD50 8,680 mg/kg (rat)
11.3 Sensitization	: No data.
11.4 Repeated dose toxicity	: No data.
11.5 CMR (carcinogenity, mutagenicity, and toxicity for reproduction)	: No data.

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## 12. ECOLOGICAL INFORMATION

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12.1. Ecotoxicity	: No data.
12.2. Mobility	: No data.
12.3. Persistence and degradability	: No data.
12.4. Bioaccumulative potential	: No data.
12.5. Results of PBT assessment	: No data.
12.6. Other adverse effects	: None.

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## 13. DISPOSAL CONSIDERATIONS

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- Follow all regulations in your country.
- Not hazardous waste.

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## 14. TRANSPORT INFORMATION

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14.1.1 UN number	: Not applicable.
14.1.2 Class	: Not applicable.
14.2.1 Proper shipping name	: Not applicable.
14.3.1 Packing group	: Not applicable.
14.4.1 Marine pollutant	: Not applicable.
14.5.1 Other applicable information	: None.

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#### 15. REGULATORY INFORMATION

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Suit a standard of "Safety of toys" Part3 (EN71-3)

Detrimental metallic elements are not containing.

(Antimony, Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium)

Occupational Safety and Health Act  The 57th 2

government ordinance number 75  Ethylene glycol

government ordinance number 381  Triethanolamine

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#### 16. OTHER INFORMATION

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The information here is given in good faith, but no warranty, express or implied, is made.

Final determination of suitability of any material is the sole responsibility of the user.

End of SDS

# SAFETY DATA SHEET

Date of Issue: February 1, 2011  
 SDS No.: SP-039  
 Version: 002



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

This product is a writing instrument to be recognized as Article.

### 1.1. Identification of the substance or preparation

Product name : BCGR2BLKM  
 : PIL77271

1.2. Use of the preparation : Ink for writing instrument

### 1.3. Company identification e-mail address

Name of manufacture : PILOT CORPORATION  
 / supplier  
 Address : 6-21, Kyobashi 2-chome, Chuo-ku, Tokyo 104-8304 Japan  
 Telephone number : 03-3538-3700  
 Working hours (from 09.00am to 05.30pm: Japanese time)  
 Facsimile number : 03-3538-3909  
 e-mail address : international@pilot.co.jp

## 2. HAZARDS IDENTIFICATION

Based on the law and regulation in Japan

Physical /Chemical hazards : Not applicable.  
 Environmental hazards : Not applicable.  
 Effect of exposure : Not applicable.  
 Symptom of exposure  
 Inhalation : Intentional exposure to ink vapors may cause respiratory irritation.  
 Ingestion : May cause upset stomach.  
 Skin contact : Ink contact with skin may cause irritation, swelling, or redness.  
 It is not expected to cause an allergic skin reaction.  
 Eye contact : Ink contact with eye may be mildly irritating.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

Based on the law and regulation in Japan

For ink unless otherwise specified

Ingredients	CAS Number	EINECS Number	Weight %	Component
Chromium and its compounds	Non-disclosure	Non-disclosure	Non-disclosure	B,R
Copper and its compounds	Non-disclosure	Non-disclosure	Non-disclosure	L

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#### 4. FIRST AID MEASURES

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Inhalation	: Remove subject to ventilated fresh air. Consult physician if necessary.
Ingestion	: Refer for medical attention.
Skin contact	: Wash the affected area under tepid running water using a mild soap. And refer for medical attention if irritation continues.
Eye contact	: Gently rinse the affected eyes with clean water for at 15 minutes. And refer for medical attention if irritation continues.
First aid facilities	: Ensure eyewash and water service are available.
Medical attention	
Local contamination	: In case of skin or eye contamination treat as under First Aid Measures.
Systemic poisoning	: There is no specific antidote. Treat symptoms.

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#### 5. FIRE-FIGHTING MEASURES

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5.1 Suitable extinguishing media	: Not classed as flammable. In case of fire, use water spray, foam, dry, chemical powder or carbon dioxide.
5.2 Extinguishing media which shall not be used for safety.	: None.
5.3 Special exposure hazards arising from the substance or preparation itself, combustion products	: CO <sub>2</sub> , CO, NO <sub>x</sub> , and SO <sub>x</sub> , is produced after combustion.
5.4 Special protective equipment for fire-fighters.	: Not required.
5.5 Additional information	: None.

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#### 6. ACCIDENTAL RELEASE MEASURES

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6.1 Personal precautions	: Use proper ventilation. Use eye and skin protection.
6.2 Environmental precautions	: Do not dispose of waste to the sewer.
6.3 Methods for cleaning up	: Absorb spill with material (cloth or paper), then place in a chemical waste containers.
6.4 Additional information	:None.

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#### 7. HANDLING AND STORAGE

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7.1. Handling	: Avoid rough handling or dropping.
7.1.1 Protective measures	: Not required in normal use.
7.1.2 Measures to prevent aerosol and dust generation	: Not required in normal use.
7.1.3 Measures required to protect the environment	: Not required in normal use.
7.1.4 Specific requirements or handling rules	: None.
7.1.5 Precautions against fire and explosion	: Not required in normal use.
7.2. Storage	: Store in a dry, cool, well-ventilated location.
7.3. Specific use(s)	: Not use it except the ink for writing instruments.

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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- 8.1. Exposure limit values : Not available.
- 8.1.1 Occupational exposure controls. : Not available.
- 8.1.2 Biological limit values. : Not available.
- 8.1.3 DNEL and PNEC-value(s) as applicable : No data.
- 8.2. Exposure controls
- 8.2.1. Occupational exposure controls
- a) Respiratory protection : Not required in normal use
- b) Hand protection : Not required in normal use
- c) Eye protection : Not required in normal use
- d) Skin protection : Not required in normal use
- 8.2.2. Environmental exposure controls : No data.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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For ink unless otherwise specified

### 9.1. General information

- Appearance : Viscosity liquid  
 <Color> Black , Red , Blue
- Odor : Slight characteristic.

### 9.2. Important health, safety and environmental information

- PH : No data.
- Boiling point / boiling range : No data.
- Flash point : 110 degrees Celsius.
- Flammability (solid, gas) : None.
- Explosive properties : None.
- Oxidizing properties : None.
- Vapor pressure : No data.
- Relative density : 1.09-1.13 (at 20 degrees Celsius)
- Solubility : Not allocated.
- Water solubility : Insoluble.
- Partition coefficient: n-octanol / water : Not available.
- Viscosity : 1,500-3,500mPa·s (17S<sup>-1</sup> ;at 20 degrees Celsius)
- Vapor density : No data.
- Evaporation rate : No data.

9.3. Other information : None.

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## 10. STABILITY AND REACTIVITY

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- 10.1. Conditions to avoid : This material is stable.
- 10.2. Materials to avoid : This material is stable.
- 10.3. Hazardous decomposition products : No data.



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## 11. TOXICOLOGICAL INFORMATION

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For ink unless otherwise specified

11.1 Toxicokinetics, metabolism and distribution	: No data.
11.2 Acute effects (acute toxicity, irritation and corrosivity)	: No data.
11.3 Sensitization	: No data.
11.4 Repeated dose toxicity	: No data.
11.5 CMR (carcinogenicity, mutagenicity, and toxicity for reproduction)	: No data.

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## 12. ECOLOGICAL INFORMATION

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12.1. Ecotoxicity	: No data.
12.2. Mobility	: No data.
12.3. Persistence and degradability	: No data.
12.4. Bioaccumulative potential	: No data.
12.5. Results of PBT assessment	: No data.
12.6. Other adverse effects	: None.

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## 13. DISPOSAL CONSIDERATIONS

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- Follow all regulations in your country.
- Not hazardous waste.

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## 14. TRANSPORT INFORMATION

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14.1.1 UN number	: Not applicable.
14.1.2 Class	: Not applicable.
14.2.1 Proper shipping name	: Not applicable.
14.3.1 Packing group	: Not applicable.
14.4.1 Marine pollutant	: Not applicable.
14.5.1 Other applicable information	: None.

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## 15. REGULATORY INFORMATION

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Suit a standard of "Safety of toys" Part3 (EN71-3)

Detrimental metallic elements are not containing.

(Antimony, Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium)

The law and regulation in Japan

Occupational Safety and Health Act (The 57th 2)

government ordinance number 142 : Chromium and its compounds

government ordinance number 379 : Copper and its compounds

Pollutant Release and Transfer Register

government ordinance number 87 : Chromium and its compounds

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## 16. OTHER INFORMATION

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The information here is given in good faith, but no warranty, express or implied, is made.

Final determination of suitability of any material is the sole responsibility of the user.