Safety data sheet for chemical products

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: UM-120 Black [uni-ball Signo]

JAPAN

Manufacture's name : MITSUBISHI PENCIL CO., LTD.

Address : 5-23-37, HIGASHIOHI, SHINAGAWA, TOKYO, JAPAN Telephone number : 03-3458-6281 Telefax number : 03-3450-0363

AUSTRALIA

Australian importer : Mitsubishi Pencil Australia

ABN : 31 085 515 671

Address : 674 Lorimar Street, Port Melbourne VIC 3207

Telephone Number : 03 9646 5630

Emergency Telephone Number: 03 9646 5630

(Monday to Friday 9:00am - 5.00pm, general information only)

Creation Date : July 2, 2014

Revision Date

File No. : 067422A_Aus Rev. 3.6.02.01

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

No hazardous product as specified in Directive 67/548/EEC or 1999/45/EC

Label elements :-

Other hazards : Not available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

The chemical product is a substance or a mixture : Mixture

Chemical nature: Component parts: Ink

Chemical or generic name	CAS No.	TSCA	EINECSNo.	Concentration range (wt%)
Water	7732-18-5	Registered	2317912	50- 80
Additives	Registered	Registered	Registered Polymer	10- 30
Ethylene glycol	107-21-1	Registered	2034733	< 10
Resin	Registered	Registered	polymer	< 10
Carbon Black	1333-86-4	Registered	2156099	< 10

Other parts : Other parts are excluded from 'chemical substances'.

4. FIRST-AID MEASURES

Inhalation:

Not applicable.

(Due to its low vapor pressure. Inhalation is unlikely at room temperature.)

Skin contact:

Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention, if needed. Thoroughly clean and dry contaminated clothing and shoes before reuse.

Eye contact:

Flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.

Ingestion:

If swallowed, seek medical advice, and show the MSDS to the physician then.

[Ink quantity of refill: about 1.1g]

5. FIRE-FIGHTING MEASURES

Fire and explosion measures : Slight fire hazard.

Extinguishing media:

Suitable : regular dry chemical, carbon dioxide, water, regular foam.

Large fires : Use regular foam or flood with fine water spray.

Fire fighting : The Products is no flammable.

Use extinguishing agents appropriate for surrounding fire. Avoid inhalation of material or combustion by products.

Stay upwind and keep out of low areas.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions : Not available.

Environmental precautions: Do not wash away into shower or water way. Methods for cleaning up: Wipe off by dry cloth and wash with water.

In accordance with national, state and local regulations.

7. HANDLING AND STORAGE

Store and handle in accordance with all current regulations and standards. Keep separated from incompatible substances.

Handling:

Technical measures . Don't swallow ink.

Recap after use.

: Don't shake.

Keep out of the reach of infants. Avoid contact with skin and eyes.

Precautions : Not available.
Safe handling advice : Not available.

Storage:

Technical measures : Keep away from oxidizing materials, ignition sources and

high temperature.

Storage condition : Avoid direct sunlight.

: Do not leave the products in high temperature space.

Recommended temperature: 0-30 C.

Incompatible products : Not available. Packaging materials : Not applicable.

Engineering measures : Not required.

Control parameters (Information of components.)

OSHA	3.5mg/m3	Carbon Black
ACGIH	100mg/m3 ceiling (particulate)(aerosol)	Ethylene glycol
	3.5mg/m3(total dust) TWA	Carbon Black
EC	52mg/m3(20ppm) TWA, 104mg/m3(40ppm) STEL(skin)	Ethylene glycol
	3.5mg/m3	Carbon Black

Personal protective equipment : Not required.

9. PHYSICAL AND CHEMICAL PROPERTIES

[]: Information of components.

Physical state and form : Liquid.
Color : Black.
Odor : None odor.
pH : about 8.4

Boiling point : Not available. [Water/ 100 C]

Melting point : < -10 C
Flash point : Not applicable.
Autoignition temperature : Not applicable.
Explosion limits : Not applicable.
Density : about 1.1/25 C
Vapor density (air=1) : Not available.
Solubility in water : Soluble.

Evaporation rate Not available.
Volatile :84-87%

10. STABILITY AND REACTIVITY

Stability : Stability.

Hazardous reactions : Will not occur.

Conditions to avoid : Avoid heat, flames, sparks and other sources of ignition.

Avoid contact with incompatible materials.

Materials to avoid : Not available. Hazardous decomposition products : Not available.

11.TOXICOLOGICAL INFORMATION

(Information of components)

Acute toxicity

icute toxicity		
Ingestion LD50	1650mg/kg-Cat,	Ethylene glycol
	4700mg/kg-Rat	
Inhalation LC50	Not available.	
Skin LD50	9530uL/kg·Rabbit	Ethylene glycol

Local effects dehydration Additive
Irritant;inhalation, skin Carbon Black

Chronic toxicity and long term toxicity

The substance may have effects on the central nervous system, resulting in abnormal eye movements (nystagmus).

Ethylene glycol

Signs and Symptoms of overexposure and aggravated by exposure

irritation,cough	Ethylene glycol
irritation	Resin / Carbon Black
irritation,dry	Ethylene glycol
sensitization	Additive
irritation	Resin / Carbon Black
irritation,redness	Ethylene glycol
irritation	Resin
mechanical irritation,	Carbon Black
discoloration of lids	
nausea,vomiting	Ethylene glycol
IARC Group 2B	Carbon Black
	irritation irritation,dry sensitization irritation irritation,redness irritation mechanical irritation, discoloration of lids nausea,vomiting

12. ECOLOGICAL INFORMATION

Not available.

13. DISPOSAL CONSIDERATIONS

Waste from residues : Disposal in accordance with all current regulations and standards.

Contaminated packaging: Not applicable.

14. TRANSPORT INFORMATION

HS Code : 960810

15. REGULATORY INFORMATION

Regulations (Information of components) Hazardous chemicals (OSHA HCS)

Ethylene glycol / Carbon Black

EU labeling : Not restricted.

CANADA Hazardous Products Act - Ingredient Disclosure List

1%over : Ethylene glycol / Carbon Black

Hazard and safety information

Products are manufactured in accordance with ISO 8124-3 "Safety of Toys - Part 3"

16. OTHER INFORMATION

This sheet completes the technical sheet of use but it doesn't replace it. The information contained in this sheet are based knowledge of the products at the data: (July 2, 2014). They are given quite sincerely. Moreover the attention of the users is drawn on the risks possibly taken, when a product is used for other utilization than these which it is intended.

Safety data sheet for chemical products

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: UM-120 Blue [uni-ball Signo]

JAPAN

Manufacture's name : MITSUBISHI PENCIL CO.,LTD.

Address : 5-23-37, HIGASHIOHI, SHINAGAWA, TOKYO, JAPAN Telephone number : 03-3458-6281 Telefax number : 03-3450-0363

AUSTRALIA

Australian importer : Mitsubishi Pencil Australia

ABN : 31 085 515 671

Address : 674 Lorimar Street, Port Melbourne VIC 3207

Telephone Number : 03 9646 5630

Emergency Telephone Number: 03 9646 5630

(Monday to Friday 9:00am - 5.00pm, general information only)

Creation Date : July 2, 2014

Revision Date

File No. : 067423A_Aus Rev. 3.6.02.01

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

No hazardous product as specified in Directive 67/548/EEC or 1999/45/EC

Label elements : ·

Other hazards : Not available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

The chemical product is a substance or a mixture : Mixture

Chemical nature: Component parts : Ink

Chemical or generic name	CAS No.	TSCA	EINECSNo.	Concentration range (wt%)
Water	7732-18-5	Registered	2317912	50- 80
Ethylene glycol	107-21-1	Registered	2034733	10- 30
Resin	Registered	Registered	polymer	< 10
Coloring agent	Registered	Registered	Registered	< 10
Additive	Registered	Registered	Registered	< 10

Other parts : Other parts are excluded from 'chemical substances'.

4. FIRST-AID MEASURES

Inhalation:

Not applicable.

(Due to its low vapor pressure. Inhalation is unlikely at room temperature.)

Skin contact:

Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention, if needed. Thoroughly clean and dry contaminated clothing and shoes before reuse.

Eve contact:

Flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.

Ingestion:

If swallowed, seek medical advice, and show the MSDS to the physician then.

[Ink quantity of refill: about 1.1g]

5. FIRE-FIGHTING MEASURES

Fire and explosion measures : Slight fire hazard.

Extinguishing media:

Suitable : regular dry chemical, carbon dioxide, water, regular foam.

Large fires : Use regular foam or flood with fine water spray.

Fire fighting : The Products is no flammable.

Use extinguishing agents appropriate for surrounding fire.

Avoid inhalation of material or combustion by products.

Stay upwind and keep out of low areas.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions : Not available.

Environmental precautions: Do not wash away into shower or water way. Methods for cleaning up: Wipe off by dry cloth and wash with water.

In accordance with national, state and local regulations.

7. HANDLING AND STORAGE

Store and handle in accordance with all current regulations and standards.

Keep separated from incompatible substances.

Handling:

Technical measures : Don't swallow ink.

Recap after use.
Don't shake.

Keep out of the reach of infants.

Avoid contact with skin and eyes.

Precautions : Not available.
Safe handling advice : Not available.

Storage:

Technical measures : Keep away from oxidizing materials, ignition sources and

high temperature.

Storage condition : Avoid direct sunlight.

Do not leave the products in high temperature space.

Recommended temperature: 0-30 C.

Incompatible products : Not available.
Packaging materials : Not applicable.

Engineering measures : Not required.

Control parameters (Information of components.)

OSHA	5mg/m3(Respirable fraction), 15mg/m3(Total dust)[Nuisance Dust]	Coloring agent
ACGIH	100mg/m3 ceiling (particulate)(aerosol)	Ethylene glycol
	10mg/m3(Nuisance particulate)	Coloring agent
EC	52mg/m3(20ppm) TWA, 104mg/m3(40ppm) STEL(skin)	Ethylene glycol

Personal protective equipment : Not required.

9. PHYSICAL AND CHEMICAL PROPERTIES

[]: Information of components.

Boiling point : Not available. [Water/ 100 C]

Melting point :<-10 C

Flash point
Autoignition temperature
Explosion limits
Density
Vapor density (air=1)
Solubility in water

Not applicable.
Not applicable.
Not applicable.
Soluble.
Soluble.

Evaporation rate : Not available.
Volatile : 85-88%

10. STABILITY AND REACTIVITY

Stability : Stability.

Hazardous reactions : Will not occur.

Conditions to avoid : Avoid heat, flames, sparks and other sources of ignition.

Avoid contact with incompatible materials.

Materials to avoid : Not available. Hazardous decomposition products : Not available.

11.TOXICOLOGICAL INFORMATION (Information of components) Acute toxicity Ingestion LD50 Ethylene glycol 1650mg/kg-Cat, 4700mg/kg-Rat >=5000mg/kg-Rat Resin >5000mg/kg-Rat Coloring agent Not available. Inhalation LC50 Skin LD50 9530uL/kg-Rabbit Ethylene glycol Local effects Ethylene glycol Irritant; inhalation, skin, eye Chronic toxicity and long term toxicity The substance may have effects on the central nervous Ethylene glycol system, resulting in abnormal eye movements (nystagmus). Signs and Symptoms of overexposure and aggravated by exposure Ethylene glycol Inhalation irritation, cough Coloring agent irritation Ethylene glycol Skin contact irritation, dry irritation Resin Ethylene glycol Eye contact irritation, redness Resin / Coloring agent irritation Ethylene glycol Ingestion nausea, vomiting Coloring agent gastric disturbances Specific effects Not available. 12. ECOLOGICAL INFORMATION Not available. 13. DISPOSAL CONSIDERATIONS

Waste from residues : Disposal in accordance with all current regulations and standards.

Contaminated packaging: Not applicable.

14. TRANSPORT INFORMATION

HS Code : 960810

15. REGULATORY INFORMATION

Regulations (Information of components)

Hazardous chemicals (OSHA HCS) : Ethylene glycol EU labeling : Not restricted.

CANADA Hazardous Products Act · Ingredient Disclosure List

1%over : Ethylene glycol

Hazard and safety information

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Products are manufactured in accordance with ISO 8124-3 " Safety of Toys - Part 3"

16. OTHER INFORMATION

This sheet completes the technical sheet of use but it doesn't replace it. The information contained in this sheet are based knowledge of the products at the data: (July 2, 2014). They are given quite sincerely.

Moreover the attention of the users is drawn on the risks possibly taken, when a product is used for other utilization than these which it is intended.

Safety data sheet for chemical products

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: UM-120 Red [uni-ball Signo]

JAPAN

Manufacture's name : MITSUBISHI PENCIL CO.,LTD.

Address : 5-23-37, HIGASHIOHI, SHINAGAWA, TOKYO, JAPAN Telephone number : 03-3458-6281 Telefax number : 03-3450-0363

AUSTRALIA

Australian importer : Mitsubishi Pencil Australia

ABN : 31 085 515 671

Address : 674 Lorimar Street, Port Melbourne VIC 3207

Telephone Number : 03 9646 5630

Emergency Telephone Number: 03 9646 5630

(Monday to Friday 9:00am · 5.00pm, general information only)

Creation Date : July 2, 2014

Revision Date

File No. : 067424A_Aus Rev. 3.6.01.01

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

No hazardous product as specified in Directive 67/548/EEC or 1999/45/EC

Label elements : -

Other hazards : Not available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

The chemical product is a substance or a mixture : Mixture

Chemical nature: Component parts : Ink

Chemical or generic name	CAS No.	TSCA	EINECSNo.	Concentration range (wt%)
Water	7732-18-5	Registered	2317912	50- 80
Ethylene glycol	107-21-1	Registered	2034733	10- 30
Coloring agent	Registered	Registered	Registered	< 10
Resin	Registered	Registered	polymer	< 10
Additive	Registered	Registered	Registered	< 10

Other parts : Other parts are excluded from 'chemical substances'.

4. FIRST-AID MEASURES

Inhalation:

Not applicable.

(Due to its low vapor pressure. Inhalation is unlikely at room temperature.)

Skin contact

Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention, if needed. Thoroughly clean and dry contaminated clothing and shoes before reuse.

Eve contact:

Flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.

Ingestion:

If swallowed, seek medical advice, and show the MSDS to the physician then.

[Ink quantity of refill: about 1.1g]

5. FIRE-FIGHTING MEASURES

Fire and explosion measures : Slight fire hazard.

Extinguishing media:

Suitable regular dry chemical, carbon dioxide, water, regular foam.

Large fires : Use regular foam or flood with fine water spray.

Fire fighting : The Products is no flammable.

Use extinguishing agents appropriate for surrounding fire. Avoid inhalation of material or combustion by products.

Stay upwind and keep out of low areas.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions : Not available.

Environmental precautions: Do not wash away into shower or water way. Methods for cleaning up: Wipe off by dry cloth and wash with water.

In accordance with national, state and local regulations.

7. HANDLING AND STORAGE

Store and handle in accordance with all current regulations and standards.

Keep separated from incompatible substances.

Handling:

Technical measures : Don't swallow ink.

Recap after use. Don't shake.

Keep out of the reach of infants.Avoid contact with skin and eyes.

Precautions : Not available. Safe handling advice : Not available.

Storage:

Technical measures : Keep away from oxidizing materials, ignition sources and

high temperature.

Storage condition : Avoid direct sunlight.

Do not leave the products in high temperature space.

Recommended temperature: 0-30 C.

Incompatible products : Not available. Packaging materials : Not applicable.

Engineering measures : Not required.

Control parameters (Information of components.)

OSHA	Not available.	
ACGIH	100mg/m3 ceiling (particulate)(aerosol)	Ethylene glycol
EC	52mg/m3(20ppm) TWA,	Ethylene glycol
	104mg/m3(40ppm) STEL(skin)	

Personal protective equipment : Not required.

9. PHYSICAL AND CHEMICAL PROPERTIES

[]: Information of components.

Physical state and form : Liquid.
Color : Red.
Odor : None odor.
pH : about 8.4

Boiling point : Not available. [Water/ 100 C]

Melting point : < -10 C

Flash point : Not applicable. Autoignition temperature : Not applicable. Explosion limits : Not applicable. Density : about 1.1/25 C Vapor density (air=1) : Not applicable. Solubility in water : Soluble. Evaporation rate : Not available. Volatile 85-88%

10. STABILITY AND REACTIVITY

Stability : Stability.

Hazardous reactions : Will not occur.

Conditions to avoid : Avoid heat, flames, sparks and other sources of ignition.

Avoid contact with incompatible materials.

Materials to avoid : Not available. Hazardous decomposition products : Not available.

11.TOXICOLOGICAL INFORMATION

(Information of components)

Acute toxicity

owed comorely			
Ingestion LD50	1650mg/kg-Cat,	Ethylene glycol	
	4700mg/kg·Rat		
	>=5000mg/kg·Rat	Coloring agent	
Inhalation LC50	Not available.		
Skin LD50	9530uL/kg·Rabbit	Ethylene glycol	

Local effects Irritant; inhalation, skin, eye Ethylene glycol

Chronic toxicity and long term toxicity

The substance may have effects on the central nervous system,

Ethylene glycol

resulting in abnormal eye movements (nystagmus).

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Signs and Symptoms of overexposure and aggravated by exposure

Inhalation	irritation, cough	Ethylene glycol
Innaiation	irritation	Coloring agent / Resin
Skin contact	irritation,dry	Ethylene glycol
	redness,swelling	Coloring agent
	irritation	Resin
Eye contact	irritation,redness	Ethylene glycol
	irritation	Resin
Ingestion	nausea,vomiting	Ethylene glycol / Coloring agent
		A

Specific effects Not available.

12. ECOLOGICAL INFORMATION

Not available.

13. DISPOSAL CONSIDERATIONS

Waste from residues : Disposal in accordance with all current regulations and standards.

Contaminated packaging: Not applicable.

14. TRANSPORT INFORMATION

HS Code : 960810

15. REGULATORY INFORMATION

Regulations (Information of components)

Hazardous chemicals (OSHA HCS) : Ethylene glycol

EU labeling : Not restricted.

R36/38: Irritating to eyes and skin.

CANADA Hazardous Products Act - Ingredient Disclosure List

: Not restricted.

Hazard and safety information

Products are manufactured in accordance with ISO 8124-3 " Safety of Toys - Part 3"

16. OTHER INFORMATION

This sheet completes the technical sheet of use but it doesn't replace it. The information contained in this sheet are based knowledge of the products at the data: (July 2, 2014). They are given quite sincerely. Moreover the attention of the users is drawn on the risks possibly taken, when a product is used for other utilization than these which it is intended.

Safety data sheet for chemical products

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: UM-120 Orange [uni-ball Signo]

JAPAN

Manufacture's name : MITSUBISHI PENCIL CO.,LTD.

Address : 5-23-37, HIGASHIOHI, SHINAGAWA, TOKYO, JAPAN Telephone number : 03-3458-6281 Telefax number : 03-3450-0363

AUSTRALIA

Australian importer : Mitsubishi Pencil Australia

ABN : 31 085 515 671

Address : 674 Lorimar Street, Port Melbourne VIC 3207

Telephone Number : 03 9646 5630

Emergency Telephone Number: 03 9646 5630

(Monday to Friday 9:00am · 5.00pm, general information only)

Creation Date : July 2, 2014

Revision Date

File No. : 067425A_Aus Rev. 3.6.02.01

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

No hazardous product as specified in Directive 67/548/EEC or 1999/45/EC

Label elements : •

Other hazards : Not available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

The chemical product is a substance or a mixture : Mixture

Chemical nature: Component parts : Ink

Chemical or generic name	CAS No.	TSCA	EINECSNo.	Concentration range (wt%)
Water	7732-18-5	Registered	2317912	50- 80
Ethylene glycol	107-21-1	Registered	2034733	10- 30
Additives	Registered	Registered	Registered Polymer	10- 30
Coloring agent	Registered	Registered	Registered	< 10

Other parts : Other parts are excluded from 'chemical substances'.

4. FIRST-AID MEASURES

Inhalation:

Not applicable.

(Due to its low vapor pressure. Inhalation is unlikely at room temperature.)

Skin contact:

Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention, if needed. Thoroughly clean and dry contaminated clothing and shoes before reuse.

Eye contact:

Flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.

Ingestion:

If swallowed, seek medical advice, and show the MSDS to the physician then.

[Ink quantity of refill: about 1.1g]

5. FIRE-FIGHTING MEASURES

Fire and explosion measures : Slight fire hazard.

Extinguishing media:

Suitable : regular dry chemical, carbon dioxide, water, regular foam.

Large fires : Use regular foam or flood with fine water spray.

Fire fighting : The Products is no flammable.

Use extinguishing agents appropriate for surrounding fire. Avoid inhalation of material or combustion by products.

Stay upwind and keep out of low areas.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions : Not available.

Environmental precautions: Do not wash away into shower or water way. Methods for cleaning up: Wipe off by dry cloth and wash with water.

In accordance with national, state and local regulations.

7. HANDLING AND STORAGE

Store and handle in accordance with all current regulations and standards.

Keep separated from incompatible substances.

Handling:

Technical measures : Don't swallow ink.

Recap after use.
Don't shake.

Keep out of the reach of infants.

Avoid contact with skin and eyes.

Precautions : Not available.
Safe handling advice : Not available.

Storage:

Technical measures : Keep away from oxidizing materials, ignition sources and

high temperature.

Storage condition : Avoid direct sunlight.

: Do not leave the products in high temperature space.

Recommended temperature: 0-30 C.

Incompatible products : Not available. Packaging materials : Not applicable.

Engineering measures : Not required.

Control parameters (Information of components.)

OSHA	15mg/m3 PEL(Nuisance Dust)	Coloring agent
ACGIH	100mg/m3 ceiling (particulate)(aerosol)	Ethylene glycol
	10mg/m3(Nuisance particulate)	Coloring agent
EC	52mg/m3(20ppm) TWA, 104mg/m3(40ppm) STEL(skin)	Ethylene glycol

Personal protective equipment : Not required.

9. PHYSICAL AND CHEMICAL PROPERTIES

ſ]: Information of components.

Physical state and form : Liquid. Color : Orange. Odor : None odor. Hq: about 8.4

Boiling point : Not available. [Water/ 100 C]

Melting point :<-10 C

Flash point : Not applicable. Autoignition temperature : Not applicable. : Not applicable. Explosion limits : about 1.1/25 C Density Vapor density (air=1) : Not applicable. Solubility in water

: Soluble. : Not available. Evaporation rate Volatile 66-69%

10. STABILITY AND REACTIVITY

Stability Stability.

Hazardous reactions Will not occur.

Avoid heat, flames, sparks and other sources of ignition. Conditions to avoid

Avoid contact with incompatible materials.

Materials to avoid : Not available.

Hazardous decomposition products : Not available.

11.TOXICOLOGICAL INFORMATION

(Information of components)

Acute toxicity

Ingestion LD50	1650mg/kg-Cat, 4700mg/kg-Rat	Ethylene glycol	
	>5000mg/kg-Rat	Coloring agent	
Inhalation LC50	Not available.		
Skin LD50	9530uL/kg-Rabbit	Ethylene glycol	

Local effects Irritant;inhalation, skin, eye Ethylene glycol

dehydration Additive

Chronic toxicity and long term toxicity

The substance may have effects on the central nervous system, resulting in abnormal eye movements (nystagmus).

Ethylene glycol

Signs and Symptoms of overexposure and aggravated by exposure

	, • •
irritation,cough	Ethylene glycol
irritation	Coloring agent
irritation,dry	Ethylene glycol
allergic contact dermatitis	Coloring agent
sensitization	Additive
irritation,redness	Ethylene glycol
nausea,vomiting	Ethylene glycol / Coloring agent
	irritation,cough irritation irritation,dry allergic contact dermatitis sensitization irritation,redness

Specific effects Not available.

12. ECOLOGICAL INFORMATION

Not available.

13. DISPOSAL CONSIDERATIONS

Waste from residues : Disposal in accordance with all current regulations and standards.

Contaminated packaging: Not applicable.

14. TRANSPORT INFORMATION

HS Code : 960810

15. REGULATORY INFORMATION

Regulations (Information of components)

Hazardous chemicals (OSHA HCS) : Ethylene glycol
EU labeling : Not restricted.

CANADA Hazardous Products Act - Ingredient Disclosure List

1%over : Ethylene glycol

Hazard and safety information

Products are manufactured in accordance with ISO 8124-3" Safety of Toys · Part 3"

16. OTHER INFORMATION

This sheet completes the technical sheet of use but it doesn't replace it. The information contained in this sheet are based knowledge of the products at the data: (July 2, 2014). They are given quite sincerely. Moreover the attention of the users is drawn on the risks possibly taken, when a product is used for other utilization than these which it is intended.

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Safety data sheet for chemical products

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: UM-120 Light blue [uni-ball Signo]

JAPAN

Manufacture's name : MITSUBISHI PENCIL CO.,LTD.

Address : 5-23-37, HIGASHIOHI, SHINAGAWA, TOKYO, JAPAN Telephone number : 03-3458-6281 Telefax number : 03-3450-0363

AUSTRALIA

Australian importer : Mitsubishi Pencil Australia

ABN : 31 085 515 671

Address : 674 Lorimar Street, Port Melbourne VIC 3207

Telephone Number : 03 9646 5630

Emergency Telephone Number: 03 9646 5630

(Monday to Friday 9:00am - 5.00pm, general information only)

Creation Date

Revision Date

File No. : 067426A_Aus Rev. 3.6.02.01

: July 2, 2014

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

No hazardous product as specified in Directive 67/548/EEC or 1999/45/EC

Label elements : ·

Other hazards : Not available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

The chemical product is a substance or a mixture : Mixture

Chemical nature: Component parts : Ink

Chemical or generic name	CAS No.	TSCA	EINECSNo.	Concentration range (wt%)
Water	7732-18-5	Registered	2317912	50- 80
Additives	Registered	Registered	Registered Polymer	10- 30
1,2-Propanediol	57-55-6	Registered	2003380	10- 30
Resin	Registered	Registered	polymer	< 10
Coloring agent	Registered	Registered	Registered	< 10

Other parts : Other parts are excluded from 'chemical substances'.

4. FIRST-AID MEASURES

Inhalation:

Not applicable.

(Due to its low vapor pressure. Inhalation is unlikely at room temperature.)

Skin contact:

Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention, if needed. Thoroughly clean and dry contaminated clothing and shoes before reuse.

Eye contact:

Flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.

Ingestion:

If swallowed, seek medical advice, and show the MSDS to the physician then.

[Ink quantity of refill: about 1.1g]

5. FIRE-FIGHTING MEASURES

Fire and explosion measures : Slight fire hazard.

Extinguishing media:

Suitable : regular dry chemical, carbon dioxide, water, regular foam.

Large fires : Use regular foam or flood with fine water spray.

Fire fighting : The Products is no flammable.

Use extinguishing agents appropriate for surrounding fire. Avoid inhalation of material or combustion by products.

Stay upwind and keep out of low areas.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions : Not available.

Environmental precautions: Do not wash away into shower or water way. Methods for cleaning up: Wipe off by dry cloth and wash with water.

In accordance with national, state and local regulations.

7. HANDLING AND STORAGE

Store and handle in accordance with all current regulations and standards.

Keep separated from incompatible substances.

Handling:

Technical measures : Don't swallow ink.

Recap after use.

Don't shake.

Keep out of the reach of infants.

Avoid contact with skin and eyes.

Precautions : Not available. Safe handling advice : Not available.

Storage:

Technical measures : Keep away from oxidizing materials, ignition sources and

high temperature.

Storage condition : Avoid direct sunlight.

: Do not leave the products in high temperature space.

Recommended temperature: 0-30 C.

Incompatible products : Not available. Packaging materials : Not applicable.

Engineering measures : Not required.

Control parameters (Information of components.)

OSHA	5mg/m3(Respirable fraction), 15mg/m3(Total dust)[Nuisance Dust]	Coloring agent
ACGIH	10mg/m3(Nuisance particulate)	Coloring agent
EC	Not available	

Personal protective equipment : Not required.

9. PHYSICAL AND CHEMICAL PROPERTIES

[]: Information of components.

Physical state and form

Color

Odor

pH

Liquid.

Light blue.

None odor.

about 8.4

Boiling point : Not available. [Water/ 100 C]

Melting point : < ·10 C

Flash point
Autoignition temperature
Explosion limits
Density
Vapor density (air=1)
Solubility in water

Not applicable.
Soluble.
Not applicable.
Soluble.

Evaporation rate : Not available. Volatile : 65-68%

volatile . 50 00%

10. STABILITY AND REACTIVITY

Stability: Stability.

Hazardous reactions : Will not occur.

Conditions to avoid : Avoid heat, flames, sparks and other sources of ignition.

Avoid contact with incompatible materials.

Materials to avoid : Not available. Hazardous decomposition products : Not available.

11.TOXICOLOGICAL INFORMATION

(Information of components)

Acute toxicity

20000mg/kg-Rat	1,2-Propanediol	
>5000mg/kg·Rat	Coloring agent	
Not available.		
20800mg/kg-Rabbit	1,2-Propanediol	
	>5000mg/kg-Rat Not available.	>5000mg/kg·Rat Coloring agent Not available.

Local effects dehydration Additive

Chronic toxicity and long term toxicity

Repeated or prolonged contact may cause skin sensitization. 1,2-Propanediol

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Signs and Symptos of overexposure and aggravated by exposure

Inhalation	nausea,headache	1,2-Propanediol	
	irritation	Coloring agent	
Skin contact	sensitization	Additive	
	irritation, allergic reaction	1,2-Propanediol	
Eye contact	irritation,pain	1,2-Propanediol	
•	irritation	Coloring agent	
Ingestion	allergic reaction, vomiting	1,2-Propanediol	
.,	gastric disturbances	Coloring agent	

Specific effects Not available.

12. ECOLOGICAL INFORMATION

Not available.

13. DISPOSAL CONSIDERATIONS

Waste from residues : Disposal in accordance with all current regulations and standards.

Contaminated packaging: Not applicable.

14. TRANSPORT INFORMATION

HS Code : 960810

15. REGULATORY INFORMATION

Regulations (Information of components)

Hazardous chemicals (OSHA HCS) : Not restricted.

EU labeling

10%<=Xi;R36/38 : Not restricted.

R36/38: Irritating to eyes and skin.

CANADA Hazardous Products Act · Ingredient Disclosure List

1%over : 1,2-Propanediol

Hazard and safety information

Products are manufactured in accordance with ISO 8124-3 "Safety of Toys - Part 3"

16. OTHER INFORMATION

This sheet completes the technical sheet of use but it doesn't replace it. The information contained in this sheet are based knowledge of the products at the data: (July 2, 2014). They are given quite sincerely. Moreover the attention of the users is drawn on the risks possibly taken, when a product is used for other utilization than these which it is intended.

Safety data sheet for chemical products

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: UM-120 Violet [uni-ball Signo]

JAPAN

Manufacture's name : MITSUBISHI PENCIL CO.,LTD.

Address : 5-23-37, HIGASHIOHI, SHINAGAWA, TOKYO, JAPAN Telephone number : 03-3458-6281 Telefax number : 03-3450-0363

AUSTRALIA

Australian importer : Mitsubishi Pencil Australia

ABN : 31 085 515 671

Address : 674 Lorimar Street, Port Melbourne VIC 3207

Telephone Number : 03 9646 5630

Emergency Telephone Number: 03 9646 5630

(Monday to Friday 9:00am - 5.00pm, general information only)

Creation Date

Revision Date

File No. : 067427A_Aus Rev. 3.6.01.01

: July 2, 2014

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

No hazardous product as specified in Directive 67/548/EEC or 1999/45/EC

Label elements :-

Other hazards Not available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

The chemical product is a substance or a mixture : Mixture

Chemical nature: Component parts: Ink

Chemical or generic name	CAS No.	TSCA	EINECSNo.	Concentration range (wt%)
Water	7732-18-5	Registered	2317912	50- 80
Ethylene glycol	107-21-1	Registered	2034733	10- 30
Coloring agent	Registered	Registered	Registered	< 10
Additive	Registered	Registered	Registered	< 10

Other parts : Other parts are excluded from 'chemical substances'.

4. FIRST-AID MEASURES

Inhalation:

Not applicable.

(Due to its low vapor pressure. Inhalation is unlikely at room temperature.)

Skin contact:

Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention, if needed. Thoroughly clean and dry contaminated clothing and shoes before reuse.

Eye contact:

Flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.

Ingestion:

If swallowed, seek medical advice, and show the MSDS to the physician then.

[Ink quantity of refill: about 1.1g]

5. FIRE-FIGHTING MEASURES

Fire and explosion measures : Slight fire hazard.

Extinguishing media:

Suitable : regular dry chemical, carbon dioxide, water, regular foam.

Large fires : Use regular foam or flood with fine water spray.

Fire fighting : The Products is no flammable.

Use extinguishing agents appropriate for surrounding fire. Avoid inhalation of material or combustion by products.

Stay upwind and keep out of low areas.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions : Not available.

Environmental precautions: Do not wash away into shower or water way. Methods for cleaning up: Wipe off by dry cloth and wash with water.

: In accordance with national, state and local regulations.

7. HANDLING AND STORAGE

Store and handle in accordance with all current regulations and standards.

Keep separated from incompatible substances.

Handling:

Technical measures : Don't swallow ink.

Recap after use.Don't shake.

Keep out of the reach of infants.Avoid contact with skin and eyes.

Precautions : Not available.
Safe handling advice : Not available.

Storage:

Technical measures : Keep away from oxidizing materials, ignition sources and

high temperature.

Storage condition : Avoid direct sunlight.

Do not leave the products in high temperature space.

Recommended temperature: 0.30 C.

Incompatible products : Not available. Packaging materials : Not applicable.

Engineering measures : Not required.

Control parameters (Information of components.)

OSHA	Not available.	
ACGIH	100mg/m3 ceiling (particulate)(aerosol)	Ethylene glycol
EC	52mg/m3(20ppm) TWA,	Ethylene glycol
	104mg/m3(40ppm) STEL(skin)	

Personal protective equipment : Not required.

9. PHYSICAL AND CHEMICAL PROPERTIES

[]: Information of components.

Physical state and form : Lliquid.
Color : Violet.
Odor : None odor.
pH : about 8.4

Boiling point : Not available. [Water/ 100 C]

Melting point : < -10 C

Flash point
Autoignition temperature
Explosion limits
Density
Vapor density (air=1)
Solubility in water

Not applicable.
Not applicable.
Not applicable.
Soluble.

Evaporation rate : Not available.

Volatile .74-77%

10. STABILITY AND REACTIVITY

Stability: Stability.

Hazardous reactions : Will not occur.

Conditions to avoid : Avoid heat, flames, sparks and other sources of ignition.

Avoid contact with incompatible materials.

Materials to avoid : Not available.

Hazardous decomposition products : Not available.

11.TOXICOLOGICAL INFORMATION

(Information of components)

Acute toxicity

touto tonicity		
Ingestion LD50	1650mg/kg-Cat,	Ethylene glycol
	4700mg/kg-Rat	
	>10000mg/kg-Rat	Coloring agent
Inhalation LC50	Not available.	
Skin LD50	9530uL/kg·Rabbit	Ethylene glycol

Local effects Irritant; inhalation, skin, eye Ethylene glycol

Chronic toxicity and long term toxicity

The substance may have effects on the central nervous Ethylene glycol

system, resulting in abnormal eye movements (nystagmus).

Signs and Symptoms of overexposure and aggravated by exposure

Inhalation	irritation,cough	Ethylene glycol	
	irritation	Coloring agent	
Skin contact	irritation,dry	Ethylene glycol	
Eye contact	irritation,redness	Ethylene glycol	
Ingestion	nausea, vomiting	Ethylene glycol	

Specific effects Not available.

12. ECOLOGICAL INFORMATION

Not available.

13. DISPOSAL CONSIDERATIONS

Waste from residues : Disposal in accordance with all current regulations and standards.

Contaminated packaging: Not applicable.

14. TRANSPORT INFORMATION

HS Code : 960810

15. REGULATORY INFORMATION

Regulations (Information of components)

Hazardous chemicals (OSHA HCS) : Ethylene glycol EU labeling : Not restricted.

CANADA Hazardous Products Act - Ingredient Disclosure List

1%over : Ethylene glycol

Hazard and safety information

Products are manufactured in accordance with ISO 8124-3 "Safety of Toys · Part 3"

16. OTHER INFORMATION

This sheet completes the technical sheet of use but it doesn't replace it. The information contained in this sheet are based knowledge of the products at the data: (July 2, 2014). They are given quite sincerely. Moreover the attention of the users is drawn on the risks possibly taken,

when a product is used for other utilization than these which it is intended.

Safety data sheet for chemical products

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: UM-120 Pink [uni-ball Signo]

JAPAN

Manufacture's name : MITSUBISHI PENCIL CO.,LTD.

Address : 5-23-37, HIGASHIOHI, SHINAGAWA, TOKYO, JAPAN Telephone number : 03-3458-6281 Telefax number : 03-3450-0363

AUSTRALIA

Australian importer : Mitsubishi Pencil Australia

ABN : 31 085 515 671

Address : 674 Lorimar Street, Port Melbourne VIC 3207

Telephone Number : 03 9646 5630

Emergency Telephone Number: 03 9646 5630

(Monday to Friday 9:00am · 5.00pm, general information only)

Creation Date : July 2, 2014

Revision Date

File No. : 067428A_Aus Rev. 3.6.01.01

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

No hazardous product as specified in Directive 67/548/EEC or 1999/45/EC

Label elements

Other hazards Not available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

The chemical product is a substance or a mixture : Mixture

Chemical nature: Component parts : Ink

Chemical or generic name	CAS No.	TSCA	EINECSNo.	Concentration range (wt%)
Water	7732-18-5	Registered	2317912	10- 30
Ethylene glycol	107-21-1	Registered	2034733	10- 30
Coloring agents	Registered	Registered	Registered	10- 30
Glycerine	56-81-5	Registered	2002895	10- 30
Additive	Registered	Registered	Registered	< 10
Resins	Registered	Registered	polymer	< 10

Other parts : Other parts are excluded from 'chemical substances'.

4. FIRST-AID MEASURES

Inhalation:

Not applicable.

(Due to its low vapor pressure. Inhalation is unlikely at room temperature.)

Skin contact:

Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention, if needed. Thoroughly clean and dry contaminated clothing and shoes before reuse.

Eye contact:

Flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.

Ingestion:

If swallowed, seek medical advice, and show the MSDS to the physician then.

[Ink quantity of refill: about 1.1g]

5. FIRE-FIGHTING MEASURES

Fire and explosion measures : Slight fire hazard.

Extinguishing media:

Suitable : regular dry chemical, carbon dioxide, water, regular foam.

Large fires : Use regular foam or flood with fine water spray.

Fire fighting : The Products is no flammable.

Use extinguishing agents appropriate for surrounding fire. Avoid inhalation of material or combustion by products.

Stay upwind and keep out of low areas.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions : Not available.

Environmental precautions: Do not wash away into shower or water way. Methods for cleaning up: Wipe off by dry cloth and wash with water.

In accordance with national, state and local regulations.

7. HANDLING AND STORAGE

Store and handle in accordance with all current regulations and standards.

Keep separated from incompatible substances.

Handling:

Technical measures : Don't swallow ink.

Recap after use.
Don't shake.

· Don i snake.

Keep out of the reach of infants.

Avoid contact with skin and eyes.

Precautions : Not available.
Safe handling advice : Not available.

Storage:

Technical measures : Keep away from oxidizing materials, ignition sources and

high temperature.

Storage condition : Avoid direct sunlight.

: Do not leave the products in high temperature space.

Recommended temperature: 0-30 C.

Incompatible products : Not available.
Packaging materials : Not applicable.

Engineering measures : Not required.

Control parameters (Information of components.)

OSHA	5mg/m3 TWA(respirable dust fraction), 15mg/m3 TWA (total dust)	Glycerine
ACGIH	100mg/m3 ceiling (particulate)(aerosol)	Ethylene glycol
	10mg/m3 TWA	Glycerine
EC	52mg/m3(20ppm) TWA, 104mg/m3(40ppm) STEL(skin)	Ethylene glycol

Personal protective equipment : Not required.

9. PHYSICAL AND CHEMICAL PROPERTIES

[]: Information of components.

Physical state and form : Liquid.
Color : Pink.
Odor : None odor.
pH : about 8.4

Boiling point : Not available. [Water/ 100 C]

Melting point : < ·10 C

Flash point

Flash point

Autoignition temperature

Explosion limits

Density

Vapor density (air=1)

Not applicable.

Not applicable.

Not applicable.

Vapor density (air=1) : Not applicable
Solubility in water : Soluble.
Evaporation rate : Not available.
Volatile : 78-81%

10. STABILITY AND REACTIVITY

Stability : Stability.

Hazardous reactions : Will not occur.

Conditions to avoid : Avoid heat, flames, sparks and other sources of ignition.

Avoid contact with incompatible materials.

Materials to avoid : Not available. Hazardous decomposition products : Not available.

11.TOXICOLOGICAL INFORMATION

(Information of components)

Acute toxicity

cute toxicity			
Ingestion LD50	1650mg/kg-Cat,	Ethylene glycol	
	4700mg/kg-Rat		
	2950mg/kg-Mouse	Coloring agent	
	4090mg/kg-Mouse	Glycerine	
Inhalation LC50	>570mg/m3 1H-Rat	Glycerine	
Skin LD50	9530uL/kg-Rabbit	Ethylene glycol	
	>10000mg/kg·Rabbit	Glycerine	

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Local effects Irritant; inhalation, skin, eye Ethylene glycol

Chronic toxicity and long term toxicity

The substance may have effects on the central nervous system, resulting in abnormal eye movements (nystagmus).

Ethylene glycol

Signs and Symptoms of overexposure and aggravated by exposure

uene ana chimbon	is of overexposare and aggravace	a by exposure
Inhalation	irritation, cough	Ethylene glycol
	irritation, pneumonitis	Resin
	irritation, difficulty breathing	Glycerine
Skin contact	irritation,dry	Ethylene glycol
	irritation, sensitization	Resin
	burns,corrosive	Coloring agent
	irritation,redness	Glycerine
Eye contact	irritation,redness	Ethylene glycol
-	irritation	Resin
	tearing, stinging	Glycerine
Ingestion	nausea, vomiting	Ethylene glycol / Coloring agent /
0		Glycerine
	diarrhea,pneumonitis	Resin
n .e. ee .	IADOG	

Specific effects IARC Group 3 Resin

12. ECOLOGICAL INFORMATION

Not available.

13. DISPOSAL CONSIDERATIONS

Waste from residues : Disposal in accordance with all current regulations and standards.

Contaminated packaging: Not applicable.

14. TRANSPORT INFORMATION

HS Code : 960810

15. REGULATORY INFORMATION

Regulations (Information of components)

Hazardous chemicals (OSHA HCS)

: Ethylene glycol / Glycerine

EU labeling : Not restricted.

CANADA Hazardous Products Act - Ingredient Disclosure List

1%over : Ethylene glycol

Hazard and safety information

Products are manufactured in accordance with ISO 8124-3" Safety of Toys · Part 3"

16. OTHER INFORMATION

This sheet completes the technical sheet of use but it doesn't replace it. The information contained in this sheet are based knowledge of the products at the data: (July 2, 2014). They are given quite sincerely.

Moreover the attention of the users is drawn on the risks possibly taken, when a product is used for other utilization than these which it is intended.



Safety data sheet for chemical products

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: UM-120 Green [uni-ball Signo]

JAPAN

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Manufacture's name : MITSUBISHI PENCIL CO.,LTD.

Address : 5-23-37, HIGASHIOHI, SHINAGAWA, TOKYO, JAPAN Telephone number : 03-3458-6281 Telefax number : 03-3450-0363

AUSTRALIA

Australian importer : Mitsubishi Pencil Australia

ABN : 31 085 515 671

Address : 674 Lorimar Street, Port Melbourne VIC 3207

Telephone Number : 03 9646 5630

Emergency Telephone Number: 03 9646 5630

(Monday to Friday 9:00am - 5.00pm, general information only)

Creation Date : July 2, 2014

Revision Date

File No. : 067429A_Aus Rev. 3.6.02.01

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

No hazardous product as specified in Directive 67/548/EEC or 1999/45/EC

Label elements :

Other hazards Not available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

The chemical product is a substance or a mixture : Mixture

Chemical nature: Component parts : Ink

Homiour Havaro	Compositorio	21.00		
Chemical or generic name	CAS No.	TSCA	EINECSNo.	Concentration range (wt%)
Water	7732-18-5	Registered	2317912	50- 80
Additives	Registered	Registered	Registered Polymer	10- 30
Ethylene glycol	107-21-1	Registered	2034733	< 10
Coloring agent	Registered	Registered	Registered	< 10
Resin	Registered	Registered	polymer	< 10
Polyethylene glycol nonylphenylether	9016-45-9	Registered	Registered	< 1

Other parts : Other parts are excluded from 'chemical substances'.

4. FIRST-AID MEASURES

Inhalation:

Not applicable.

(Due to its low vapor pressure. Inhalation is unlikely at room temperature.)

Skin contact:

Wash skin with soap and water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention, if needed. Thoroughly clean and dry contaminated clothing and shoes before reuse.

Eye contact:

Flush eyes with plenty of water for at least 15 minutes. Then get immediate medical attention.

Ingestion:

If swallowed, seek medical advice, and show the MSDS to the physician then.

[Ink quantity of refill: about 1.1g]

5. FIRE-FIGHTING MEASURES

Fire and explosion measures : Slight fire hazard.

Extinguishing media:

Suitable : regular dry chemical, carbon dioxide, water, regular foam.

Large fires : Use regular foam or flood with fine water spray.

Fire fighting : The Products is no flammable.

Use extinguishing agents appropriate for surrounding fire. Avoid inhalation of material or combustion by products.

Stay upwind and keep out of low areas.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions : Not available.

Environmental precautions: Do not wash away into shower or water way. Methods for cleaning up: Wipe off by dry cloth and wash with water.

: In accordance with national, state and local regulations.

7. HANDLING AND STORAGE

Store and handle in accordance with all current regulations and standards.

Keep separated from incompatible substances.

Handling:

Technical measures : Don't swallow ink.

Recap after use.

Don't shake.

Keep out of the reach of infants.

Avoid contact with skin and eyes.

Precautions : Not available.
Safe handling advice : Not available.

Storage:

Technical measures : Keep away from oxidizing materials, ignition sources and

high temperature.

Storage condition : Avoid direct sunlight.

: Do not leave the products in high temperature space.

: Recommended temperature: 0-30 C.

Incompatible products : Not available.
Packaging materials : Not applicable.

Engineering measures : Not required.

Control parameters (Information of components.)

OSHA	15mg/m3 PEL(Nuisance Dust)	Coloring agent
ACGIH	100mg/m3 ceiling (particulate)(aerosol)	Ethylene glycol
	10mg/m3(Nuisance particulate)	Coloring agent
EC	52mg/m3(20ppm) TWA,	Ethylene glycol
_	104mg/m3(40ppm) STEL(skin)	

Personal protective equipment : Not required.

9. PHYSICAL AND CHEMICAL PROPERTIES

]: Information of components.

Physical state and form : Liquid. Color : Green. Odor : None odor. pH: about 8.4

Boiling point : Not available. [Water/ 100 C]

Melting point :<-10 C Flash point : Not applicable. Autoignition temperature : Not applicable. Explosion limits : Not applicable. Density : about 1.1/25 C Vapor density (air=1) : Not available.

Solubility in water : Soluble. Evaporation rate Not available.

Volatile 71-74%

10. STABILITY AND REACTIVITY

Stability Stability.

Hazardous reactions : Will not occur.

Conditions to avoid Avoid heat, flames, sparks and other sources of ignition.

Avoid contact with incompatible materials.

Materials to avoid Not available.

Hazardous decomposition products : Not available.

11.TOXICOLOGICAL INFORMATION

(Information of components)

Acute toxicity

Ingestion LD50	1650mg/kg-Cat, 4700mg/kg-Rat	Ethylene glycol
	>=5000mg/kg-Rat	Coloring agent / Resin
Inhalation LC50	Not available.	
Skin LD50	9530uL/kg-Rabbit	Ethylene glycol
1 00 .		

Local effects Irritant; inhalation, skin, eve Ethylene glycol

dehydration Additive

Chronic toxicity and long term toxicity

The substance may have effects on the central nervous system, resulting in abnormal eye movements (nystagmus).

Ethylene glycol

Signs and Symptoms of overexposure and aggravated by exposure

0 2 1		, v *
Inhalation	irritation,cough	Ethylene glycol
	irritation	Coloring agent
Skin contact	irritation,dry	Ethylene glycol
	irritation	Coloring agent / Resin
	sensitization	Additive
Eye contact	irritation,redness	Ethylene glycol
	irritation	Coloring agent / Resin
Ingestion	nausea,vomiting	Ethylene glycol
••	gastric disturbances	Coloring agent

Specific effects Not available.

12. ECOLOGICAL INFORMATION

Not available.

13. DISPOSAL CONSIDERATIONS

Waste from residues : Disposal in accordance with all current regulations and standards.

Contaminated packaging: Not applicable.

14. TRANSPORT INFORMATION

HS Code : 960810

15. REGULATORY INFORMATION

Regulations (Information of components)
Hazardous chemicals (OSHA HCS)

Ethylene glycol

EU labeling

: Not restricted.

CANADA Hazardous Products Act · Ingredient Disclosure List

1%over : Ethylene glycol

Hazard and safety information

Products are manufactured in accordance with ISO 8124-3 "Safety of Toys - Part 3"

16. OTHER INFORMATION

This sheet completes the technical sheet of use but it doesn't replace it. The information contained in this sheet are based knowledge of the products at the data: (July 2, 2014). They are given quite sincerely. Moreover the attention of the users is drawn on the risks possibly taken, when a product is used for other utilization than these which it is intended.