

Safety data sheet for chemical products

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: PC-5M Black [POSCA]

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
BAN : 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 : August 24, 2001
Revision Date : March 7, 2014
File No. : 010243_Aus Rev. 3.6.06.05

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	EINECS No.	Concentration range (wt%)
Water	7732-18-5	Registered	2317912	50- 80
Carbon Black	1333-86-4	Registered	2156099	< 10
Resin	Registered	Registered	Registered	< 10
Ethylene glycol	107-21-1	Registered	2034733	< 10
Ethyl alcohol	64-17-5	Registered	2005786	< 10
2-Propanol	67-63-0	Registered	2006617	< 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 product : about 3.6g]

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.

: 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.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Engineering measures : Not required.

Control parameters (Information of components.)

OSHA	3.5mg/m ³ TWA 1000ppm TWA 400 ppm TWA, 500ppm STEL	Carbon Black Ethyl alcohol 2-Propanol
ACGIH	3.5mg/m ³ TWA 100mg/m ³ ceiling (particulate)(aerosol) 1000ppm TWA 200ppm TWA, 400ppm STEL	Carbon Black Ethylene glycol Ethyl alcohol 2-Propanol
EC	3.5mg/m ³ TWA 52mg/m ³ (20ppm) TWA(skin), 104mg/m ³ (40ppm) STEL(skin) 1000ppm	Carbon Black Ethylene glycol Ethyl alcohol

Personal protective equipment : Not required.

9. PHYSICAL AND CHEMICAL PROPERTIES

[] : Information of components.

Physical state and form	: Liquid.
Color	: Black.
Odor	: Faint odor.
pH	: about 8.5
Boiling point	: Not available. [Water/ 100 C]
Melting point	: <-10 C
Flash point	: Not applicable. [2-Propanol/ 11.7 C]
Auto ignition temperature	: Not applicable. [Ethyl alcohol/ 363 C]
Explosion limits	: Not applicable. [Lower flammable limit / 2.0% , Upper flammable limit / 12.7 % <2-Propanol>]
Density	: about 1.1 / 25 C
Vapor density (air=1)	: Not available. [2-Propanol/ 2.07-2.10]
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

Ingestion LD50	>10000mg/kg-Rat 1650mg/kg-Cat, 4700mg/kg-Rat 3450mg/kg-Mouse 3600mg/kg-Mouse	Carbon Black Ethylene glycol Ethyl alcohol 2-Propanol
Inhalation LC50	20000ppm-10H-Rat 11100ppm-4H-Mouse	Ethyl alcohol 2-Propanol
Skin LD50	>3000mg/kg-Rabbit 9530uL/kg-Rabbit 12800mg/kg-Rabbit	Carbon Black Ethylene glycol 2-Propanol

Local effects

Irritant:inhalation, skin	Carbon Black
Irritant:inhalation, skin, eye	Ethylene glycol / Ethyl alcohol
Irritant:inhalation, eye	2-Propanol

Chronic toxicity and long term toxicity

Lungs may be affected by repeated or prolonged exposure at very high concentrations. Respiratory disorders. Carbon Black

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

The liquid defats the skin. The substance may have effects on the upper respiratory tract and central nervous system, resulting in irritation, headache, fatigue and lack of concentration. Ethyl alcohol

The liquid defats the skin. 2-Propanol

Signs and Symptoms of overexposure and aggravated by exposure

Inhalation	irritation irritation,cough irritation,nausea	Carbon Black / Resin Ethylene glycol / Ethyl alcohol 2-Propanol
Skin contact	irritation irritation,dry irritation,absorption	Carbon Black / Resin Ethylene glycol / Ethyl alcohol 2-Propanol
Eye contact	mechanical irritation, discoloration of lids irritation irritation,redness irritation,pain	Carbon Black Resin Ethylene glycol / Ethyl alcohol 2-Propanol
Ingestion	nausea,vomiting rash,vomiting nausea,stomach pain	Ethylene glycol Ethyl alcohol 2-Propanol

Specific effects

IARC Group 2B	Carbon Black
IARC Group 3	2-Propanol

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 : 960820

15. REGULATORY INFORMATION

Regulations (Information of components)

Hazardous chemicals (OSHA HCS)

: Carbon Black / Ethylene glycol / Ethyl alcohol / 2-Propanol

EU labeling : Not restricted.

CANADA Hazardous Products Act - Ingredient Disclosure List

1%over

Carbon Black / Ethylene glycol / 2-Propanol

0.1%over

Ethyl alcohol

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 : (March 7, 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: PC-5M Red [POSCA]

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
BAN : 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 : August 24, 2001
Revision Date : March 7, 2014
File No. : 010244A_Aus Rev. 3.6.08.05

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	EINECS No.	Concentration range (wt%)
Water	7732-18-5	Registered	2317912	50- 80
Titanium dioxide	13463-67-7	Registered	2366755	10- 30
Coloring agent	Registered	Registered	Registered	< 10
Resins	Registered	Registered	Registered	< 10
Ethylene glycol	107-21-1	Registered	2034733	< 10
Ethyl alcohol	64-17-5	Registered	2005786	< 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 product : about 3.7g]

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.

: 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.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Engineering measures : Not required.

Control parameters (Information of components.)

OSHA	15mg/m ³ TWA (Total dust) 1000ppm TWA	Titanium dioxide Ethyl alcohol
ACGIH	10mg/m ³ TWA 100mg/m ³ ceiling (particulate)(aerosol) 1000ppm TWA	Titanium dioxide Ethylene glycol Ethyl alcohol
EC	6mg/m ³ 52mg/m ³ (20ppm) TWA(skin), 104mg/m ³ (40ppm) STEL(skin) 1000ppm	Titanium dioxide Ethylene glycol Ethyl alcohol

Personal protective equipment : Not required.

9. PHYSICAL AND CHEMICAL PROPERTIES

[] : Information of components.

Physical state and form	: Liquid.
Color	: Red.
Odor	: Faint odor.
pH	: about 8.2
Boiling point	: Not available. [Water/ 100 C]
Melting point	: <-10 C
Flash point	: Not applicable. [Ethyl alcohol/ 12.2 C(CC)]
Auto ignition temperature	: Not applicable. [Ethyl alcohol/ 363 C]
Explosion limits	: Not applicable. [Lower flammable limit / 3.28% , Upper flammable limit / 19.0% <Ethyl alcohol>]
Density	: about 1.1 / 25 C
Vapor density (air=1)	: Not available. [Ethyl alcohol/ 1.59]
Solubility in water	: Soluble.
Evaporation rate	: Not available.
Volatile	: 72-75%

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	>24000mg/kg-Rat 1650mg/kg-Cat, 4700mg/kg-Rat 3450mg/kg-Mouse	Titanium dioxide Ethylene glycol Ethyl alcohol
Inhalation LC50	6820mg/m ³ -4H-Rat 20000ppm-10H-Rat	Titanium dioxide Ethyl alcohol
Skin LD50	9530uL/kg-Rabbit	Ethylene glycol

Local effects Irritant;inhalation, skin, eye Ethylene glycol / Ethyl alcohol

Chronic toxicity and long term toxicity

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

The liquid defats the skin. The substance may have effects on the upper respiratory tract and central nervous system, resulting in irritation, headache, fatigue and lack of concentration. Ethyl alcohol

Signs and Symptoms of overexposure and aggravated by exposure

Inhalation	irritation,cough	Titanium dioxide / Ethylene glycol Ethyl alcohol
	irritation headache,nausea	Coloring agent Resin
Skin contact	redness,swelling of skin irritation	Coloring agent Resin
	irritation,dry	Ethylene glycol / Ethyl alcohol
Eye contact	irritation,redness	Titanium dioxide / Ethylene glycol Ethyl alcohol
	irritation	Resin
Ingestion	physiologically inert,intestinal obstruction	Titanium dioxide
	nausea,vomiting	Coloring agent
	digestive discomfort	Resin
	nausea,vomiting	Ethylene glycol
	rash,vomiting	Ethyl alcohol

Specific effects IARC Group 2B Titanium dioxide

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 : 960820

15. REGULATORY INFORMATION

Regulations (Information of components)

Hazardous chemicals (OSHA HCS) : Titanium dioxide / Ethylene glycol / Ethyl alcohol

EU labeling : Not restricted.

CANADA Hazardous Products Act - Ingredient Disclosure List

1%over Ethylene glycol

0.1%over Ethyl alcohol

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 : (March 7, 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: PC-5M Blue [POSCA]

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
BAN : 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 : August 24, 2001
Revision Date : March 7, 2014
File No. : 010245A_Aus Rev. 3.6.06.03

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	EINECS No.	Concentration range (wt%)
Water	7732-18-5	Registered	2317912	50- 80
Titanium dioxide	13463-67-7	Registered	2366755	10- 30
Resins	Registered	Registered	Registered Polymer	< 10
Ethyl alcohol	64-17-5	Registered	2005786	< 10
2-Propanol	67-63-0	Registered	2006617	< 10
Coloring agents	Registered	Registered	Registered	< 10
Ethylene glycol	107-21-1	Registered	2034733	< 10
Silica (amorphous)	7631-86-9	Registered	2315454	< 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 product : about 4.1g]

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.

: 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.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Engineering measures : Not required.

Control parameters (Information of components.)

OSHA	15mg/m ³ TWA (Total dust) 1000ppm TWA 400 ppm TWA, 500ppm STEL 5mg/m ³ (Respirable fraction), 15mg/m ³ (Total dust) [Nuisance Dust] 5mg/m ³ (as Mo), 1mg/m ³ (as W) [Soluble compounds] 20mppcf TWA (<1% crystalline silica)	Titanium dioxide Ethyl alcohol 2-Propanol Coloring agent
ACGIH	10mg/m ³ TWA 1000ppm TWA 200ppm TWA, 400ppm STEL 5mg/m ³ (as Mo), 1mg/m ³ (as W) [Soluble compounds] 100mg/m ³ ceiling (particulate)(aerosol)	Titanium dioxide Coloring agent Ethyl alcohol 2-Propanol Ethylene glycol
EC	6mg/m ³ 1000ppm 52mg/m ³ (20ppm) TWA(skin), 104mg/m ³ (40ppm) STEL(skin)	Titanium dioxide Ethyl alcohol Ethylene glycol

Personal protective equipment : Not required.

9. PHYSICAL AND CHEMICAL PROPERTIES

[] : Information of components.

Physical state and form : Liquid.
Color : Not available.
Odor : Blue.
pH : about 8.4
Boiling point : Not available. [Water/ 100 C]
Melting point : <-10 C
Flash point : Not applicable. [2-Propanol/ 11.7 C]
Auto ignition temperature : Not applicable. [Ethyl alcohol/ 363 C]
Explosion limits : Not applicable.
[Lower flammable limit / 2.0% , Upper flammable limit / 12.7 % <2-Propanol>]
Density : about 1.2 / 25 C
Vapor density (air=1) : Not available. [2-Propanol/ 2.07-2.10]
Solubility in water : Soluble.
Evaporation rate : Not available.
Volatile : 63-66%

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	>24000mg/kg-Rat 3450mg/kg-Mouse 3600mg/kg-Mouse ≥5000mg/kg-Rat 1650mg/kg-Cat 4700mg/kg-Rat 3160mg/kg-Rat	Titanium dioxide Ethyl alcohol 2-Propanol Coloring agent Ethylene glycol Silica (amorphous)
Inhalation LC50	6820mg/m ³ -4H-Rat 20000ppm-10H-Rat 11100ppm-4H-Mouse	Titanium dioxide Ethyl alcohol 2-Propanol
Skin LD50	12800mg/kg-Rabbit 9530uL/kg-Rabbit	2-Propanol Ethylene glycol

Local effects	Irritant; inhalation, skin, eye Irritant;inhalation, eye	Ethyl alcohol / Ethylene glycol 2-Propanol
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Chronic toxicity and long term toxicity

The liquid defats the skin. The substance may have effects on the upper respiratory tract and central nervous system, resulting in irritation, headache, fatigue and lack of concentration. .

Ethyl alcohol

The liquid defats the skin.

2-Propanol

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

Inhalation	irritation,cough irritation irritation,nausea	Titanium dioxide / Ethyl alcohol Ethylene glycol / Silica (amorphous) Resin / Coloring agent 2-Propanol
Skin contact	irritation irritation,dry irritation,absorption	Resin Ethyl alcohol / Ethylene glycol Silica (amorphous) 2-Propanol
Eye contact	irritation,redness irritation irritation,pain	Titanium dioxide / Ethyl alcohol Ethylene glycol / Silica (amorphous) Resin / Coloring agent 2-Propanol

Ingestion	physiologically inert, intestinal obstruction rash,vomiting nausea,stomach pain gastric disturbances nausea,vomiting	Titanium dioxide Ethyl alcohol 2-Propanol Coloring agent Ethylene glycol
Specific effects	IARC Group 2B IARC Group 3	Titanium dioxide 2-Propanol / Silica (amorphous)

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 : 960820

15. REGULATORY INFORMATION

Regulations (Information of components)

Hazardous chemicals (OSHA HCS)

: Titanium dioxide / Ethyl alcohol / 2-Propanol / Ethylene glycol

EU labeling : Not restricted.

CANADA Hazardous Products Act - Ingredient Disclosure List

0.1%over

Ethyl alcohol

1%over

2-Propanol / Ethylene glycol / Silica (amorphous)

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 : (March 7, 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: PC-5M Green [POSCA]

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
BAN : 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 : August 24, 2001
Revision Date : March 7, 2014
File No. : 010246A_Aus Rev. 3.6.07.05

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	EINECS No.	Concentration range (wt%)
Water	7732-18-5	Registered	2317912	50- 80
Titanium dioxide	13463-67-7	Registered	2366755	10- 30
Resins	Registered	Registered	Registered	< 10
Coloring agents	Registered	Registered	Registered	< 10
Ethylene glycol	107-21-1	Registered	2034733	< 10
Ethyl alcohol	64-17-5	Registered	2005786	< 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 product : about 3.9g]

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.

: 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.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Engineering measures : Not required.

Control parameters (Information of components.)

OSHA	15mg/m3 TWA (Total dust)	Titanium dioxide
	15mg/m3 PEL (Nuisance Dust)	Coloring agent
	1000ppm TWA	Ethyl alcohol
ACGIH	10mg/m3 TWA	Titanium dioxide /
		Coloring agent
	100mg/m3 ceiling (particulate)(aerosol)	Ethylene glycol
EC	1000ppm TWA	Ethyl alcohol
	6mg/m3	Titanium dioxide
	52mg/m3(20ppm) TWA(skin),	Ethylene glycol
	104mg/m3(40ppm) STEL(skin)	
	1000ppm	Ethyl alcohol

Personal protective equipment : Not required.

9. PHYSICAL AND CHEMICAL PROPERTIES

[] : Information of components.

Physical state and form	: Liquid.
Color	: Green.
Odor	: Faint odor.
pH	: about 8.2
Boiling point	: Not available. [Water/ 100 C]
Melting point	: <-10 C
Flash point	: Not applicable. [Ethyl alcohol/ 12.2 C(CC)]
Auto ignition temperature	: Not applicable. [Ethyl alcohol/ 363 C]
Explosion limits	: Not applicable.
	[Lower flammable limit / 3.28% , Upper flammable limit / 19.0% <Ethyl alcohol>]
Density	: about 1.1 / 25 C
Vapor density (air=1)	: Not available. [Ethyl alcohol/ 1.59]
Solubility in water	: Soluble.
Evaporation rate	: Not available.
Volatile	: 73-76%

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	>24000mg/kg-Rat ≥ 5000mg/kg-Rat 1650mg/kg-Cat, 4700mg/kg-Rat 3450mg/kg-Mouse	Titanium dioxide Coloring agent Ethylene glycol Ethyl alcohol
Inhalation LC50	6820mg/m ³ -4H-Rat 20000ppm-10H-Rat	Titanium dioxide Ethyl alcohol
Skin LD50	9530uL/kg-Rabbit	Ethylene glycol

Local effects Irritant;inhalation, skin, eye Ethylene glycol / Ethyl alcohol

Chronic toxicity and long term toxicity

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

The liquid defats the skin. The substance may have effects on the upper respiratory tract and central nervous system, resulting in irritation, headache, fatigue and lack of concentration. Ethyl alcohol

Signs and Symptoms of overexposure and aggravated by exposure

Inhalation	irritation,cough headache,nausea irritation	Titanium dioxide / Ethylene glycol Ethyl alcohol Resin Coloring agent
Skin contact	irritation irritation,dry	Resin / Coloring agent Ethylene glycol / Ethyl alcohol
Eye contact	irritation,redness irritation	Titanium dioxide / Ethylene glycol Ethyl alcohol Resin / Coloring agent
Ingestion	physiologically inert,intestinal obstruction digestive discomfort nausea,vomiting rash,vomiting	Titanium dioxide Resin Coloring agent / Ethylene glycol Ethyl alcohol

Specific effects IARC Group 2B Titanium dioxide

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 : 960820

15. REGULATORY INFORMATION

Regulations (Information of components)

Hazardous chemicals (OSHA HCS) : Titanium dioxide / Ethylene glycol / Ethyl alcohol

EU labeling : Not restricted.

CANADA Hazardous Products Act - Ingredient Disclosure List

1%over Ethylene glycol

0.1%over Ethyl alcohol

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 : (March 7, 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: PC-5M Light green [POSCA]

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
BAN : 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 : August 24, 2001
Revision Date : March 7, 2014
File No. : 010247A_Aus Rev. 3.6.07.05

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	EINECS No.	Concentration range (wt%)
Water	7732-18-5	Registered	2317912	50- 80
Titanium dioxide	13463-67-7	Registered	2366755	10- 30
Resins	Registered	Registered	Registered	< 10
Ethylene glycol	107-21-1	Registered	2034733	< 10
Ethyl alcohol	64-17-5	Registered	2005786	< 10
Coloring agents	Registered	Registered	Registered	< 10
2-Propanol	67-63-0	Registered	2006617	< 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 product : about 4.1g]

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.

: 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.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Engineering measures : Not required.

Control parameters (Information of components.)

OSHA	15mg/m3 TWA (Total dust)	Titanium dioxide
	1000ppm TWA	Ethyl alcohol
	15mg/m3 PEL (Nuisance Dust)	Coloring agent
	400 ppm TWA, 500ppm STEL	2-Propanol
ACGIH	10mg/m3 TWA	Titanium dioxide /
		Coloring agent
	100mg/m3 ceiling (particulate)(aerosol)	Ethylene glycol
	1000ppm TWA	Ethyl alcohol
EC	200ppm TWA, 400ppm STEL	2-Propanol
	6mg/m3	Titanium dioxide
	52mg/m3(20ppm) TWA(skin), 104mg/m3(40ppm) STEL(skin)	Ethylene glycol
	1000ppm	Ethyl alcohol

Personal protective equipment : Not required.

9. PHYSICAL AND CHEMICAL PROPERTIES

[]: Information of components.

Physical state and form : Liquid.
Color : Light green.
Odor : Faint odor.
pH : about 8.5
Boiling point : Not available. [Water/ 100 C]
Melting point : <-10 C
Flash point : Not applicable. [2-Propanol/ 11.7 C]
Auto ignition temperature : Not applicable. [Ethyl alcohol/ 363 C]
Explosion limits : Not applicable.
[Lower flammable limit / 2.0% , Upper flammable limit / 12.7 % <2-Propanol>]
Density : about 1.2 / 25 C
Vapor density (air=1) : Not available. [2-Propanol/ 2.07-2.10]
Solubility in water : Soluble.
Evaporation rate : Not available.
Volatile : 69-72%

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	>24000mg/kg-Rat 1650mg/kg-Cat, 4700mg/kg-Rat 3450mg/kg-Mouse ≥ 5000mg/kg-Rat 3600mg/kg-Mouse	Titanium dioxide Ethylene glycol Ethyl alcohol Coloring agent 2-Propanol
Inhalation LC50	6820mg/m ³ -4H-Rat 20000ppm-10H-Rat 11100ppm-4H-Mouse	Titanium dioxide Ethyl alcohol 2-Propanol
Skin LD50	9530uL/kg-Rabbit 12800mg/kg-Rabbit	Ethylene glycol 2-Propanol

Local effects Irritant;inhalation, skin, eye Ethylene glycol / Ethyl alcohol
 Irritant;inhalation, eye 2-Propanol

Chronic toxicity and long term toxicity

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

Ethylene glycol

The liquid defats the skin. The substance may have effects on the upper respiratory tract and central nervous system, resulting in irritation, headache, fatigue and lack of concentration.

Ethyl alcohol

The liquid defats the skin.

2-Propanol

Signs and Symptoms of overexposure and aggravated by exposure

Inhalation	irritation,cough headache,nausea irritation irritation,nausea	Titanium dioxide / Ethylene glycol Ethyl alcohol Resin Coloring agent 2-Propanol
Skin contact	irritation irritation,dry redness,swelling irritation,absorption	Resin Ethylene glycol / Ethyl alcohol Coloring agent 2-Propanol
Eye contact	irritation,redness irritation irritation,pain	Titanium dioxide / Ethylene glycol Ethyl alcohol Resin / Coloring agent 2-Propanol
Ingestion	physiologically inert,intestinal obstruction digestive discomfort nausea,vomiting rash,vomiting nausea,stomach pain	Titanium dioxide Resin Ethylene glycol / Coloring agent Ethyl alcohol 2-Propanol

Specific effects IARC Group 2B Titanium dioxide
 IARC Group 3 2-Propanol

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 : 960820

15. REGULATORY INFORMATION

Regulations (Information of components)

Hazardous chemicals (OSHA HCS)

: Titanium dioxide / Ethylene glycol / Ethyl alcohol / 2-Propanol

EU labeling

: Not restricted.

CANADA Hazardous Products Act - Ingredient Disclosure List

1%over

Ethylene glycol / 2-Propanol

0.1%over

Ethyl alcohol

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 : (March 7, 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.

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 product : about 3.8g]

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.

: 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.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Engineering measures : Not required.

Control parameters (Information of components.)

OSHA	15mg/m3 TWA (Total dust)	Titanium dioxide
ACGIH	10mg/m3 TWA	Titanium dioxide / Coloring agent
	100mg/m3 ceiling (particulate)(aerosol)	Ethylene glycol
EC	6mg/m3 52mg/m3(20ppm) EC MAK TWA(skin), 104mg/m3(40ppm) EC MAK STEL(skin)	Titanium dioxide Ethylene glycol

Personal protective equipment : Not required.

9. PHYSICAL AND CHEMICAL PROPERTIES

[] : Information of components.

Physical state and form : Liquid.
Color : Violet.
Odor : Faint odor.
pH : about 8.3
Boiling point : Not available. [Water/ 100 C]
Melting point : <-10 C
Flash point : Not applicable. [Ethylene glycol/ 111 C(CC)]
Auto ignition temperature : Not applicable. [Ethylene glycol/ 398 C]
Explosion limits : Not applicable.
[Lower flammable limit / 3.2% , Upper flammable limit / 15.3% <Ethylene glycol>]
Density : about 1.1 / 25 C
Vapor density (air=1) : Not available. [Ethylene glycol/ 2.1]
Solubility in water : Soluble.
Evaporation rate : Not available.
Volatile : 72-75%

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	>24000mg/kg-Rat 1000mg/kg-Mouse 1650mg/kg-Cat, 4700mg/kg-Rat 2950mg/kg-Mouse 1310mg/kg-Rat	Titanium dioxide Resin Ethylene glycol Coloring agent Polyoxyethylene nonylphenyl ether
Inhalation LC50	6820mg/m ³ -4H-Rat	Titanium dioxide
Skin LD50	9530uL/kg-Rabbit 2ml/kg-Rabbit	Ethylene glycol Polyoxyethylene nonylphenyl ether

Local effects	Irritant;inhalation, skin, eye Irritant;eye	Ethylene glycol Polyoxyethylene nonylphenyl ether
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Chronic toxicity and long term toxicity

The substance may have effects on the central nervous system, resulting in abnormal eye movements (nystagmus).	Ethylene glycol
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Signs and Symptoms of overexposure and aggravated by exposure

Inhalation	irritation,cough irritation	Titanium dioxide / Resin Ethylene glycol Coloring agent Polyoxyethylene nonylphenyl
Skin contact	mechanical abrasion,irritation irritation,dry burns,corrosive irritation	Resin Ethylene glycol Coloring agent Polyoxyethylene nonylphenyl ether
Eye contact	irritation,redness irritation irritation,eye damage	Titanium dioxide / Ethylene glycol Resin Polyoxyethylene nonylphenyl ether
Ingestion	physiologically inert,intestinal obstruction digestive discomfort nausea,vomiting digestive disorders,diarrhea	Titanium dioxide Resin Ethylene glycol / Coloring agent Polyoxyethylene nonylphenyl ether

Specific effects	IARC Group 2B IARC Group 3	Titanium dioxide Resin
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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 : 960820

15. REGULATORY INFORMATION

Regulations (Information of components)

Hazardous chemicals (OSHA HCS) : Titanium dioxide / 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 : (March 7, 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: PC-5M Light orange [POSCA]

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
BAN : 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 : August 24, 2001
Revision Date : March 7, 2014
File No. : 010249A_Aus Rev. 3.6.07.05

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	EINECS No.	Concentration range (wt%)
Water	7732-18-5	Registered	2317912	50- 80
Titanium dioxide	13463-67-7	Registered	2366755	10- 30
Resins	Registered	Registered	Registered	< 10
Ethyl alcohol	64-17-5	Registered	2005786	< 10
Ethylene glycol	107-21-1	Registered	2034733	< 10
2-Propanol	67-63-0	Registered	2006617	< 10
Coloring agents	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 product : about 4.2g]

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.

: 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.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Engineering measures : Not required.

Control parameters (Information of components.)

OSHA	15mg/m ³ TWA (Total dust) 1000ppm TWA 400 ppm TWA, 500ppm STEL	Titanium dioxide Ethyl alcohol 2-Propanol
ACGIH	10mg/m ³ TWA 1000ppm TWA 100mg/m ³ ceiling (particulate)(aerosol) 200ppm TWA, 400ppm STEL	Titanium dioxide Ethyl alcohol Ethylene glycol 2-Propanol
EC	6mg/m ³ 1000ppm 52mg/m ³ (20ppm) TWA(skin), 104mg/m ³ (40ppm) STEL(skin)	Titanium dioxide Ethyl alcohol Ethylene glycol

Personal protective equipment : Not required.

9. PHYSICAL AND CHEMICAL PROPERTIES

[] : Information of components.

Physical state and form : Liquid.
Color : Light orange.
Odor : Faint odor.
pH : about 8.1
Boiling point : Not available. [Water/ 100 C]
Melting point : <-10 C
Flash point : Not applicable. [2-Propanol/ 11.7 C]
Auto ignition temperature : Not applicable. [Ethyl alcohol/ 363 C]
Explosion limits : Not applicable.
[Lower flammable limit / 2.0% , Upper flammable limit / 12.7 % <2-Propanol>]
Density : about 1.2 / 25 C
Vapor density (air=1) : Not available. [2-Propanol/ 2.07-2.10]
Solubility in water : Soluble.
Evaporation rate : Not available.
Volatile : 68-71%

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.

13. DISPOSAL CONSIDERATIONS

Waste from residues : Disposal in accordance with all current regulations and standards.
Contaminated packaging : Not applicable.

14. TRANSPORT INFORMATION

HS Code : 960820

15. REGULATORY INFORMATION

Regulations (Information of components)

Hazardous chemicals (OSHA HCS)

: Titanium dioxide / Ethyl alcohol / Ethylene glycol / 2-Propanol

EU labeling : Not restricted.

CANADA Hazardous Products Act - Ingredient Disclosure List

0.1%over

Ethyl alcohol

1%over

Ethylene glycol / 2-Propanol

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 : (March 7, 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: PC-5M Bright yellow [POSCA]

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
BAN : 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 : August 24, 2001
Revision Date : March 7, 2014
File No. : 010250A_Aus Rev. 3.6.07.05

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	EINECS No.	Concentration range (wt%)
Water	7732-18-5	Registered	2317912	50- 80
Titanium dioxide	13463-67-7	Registered	2366755	< 10
Coloring agents	Registered	Registered	Registered	< 10
Resins	Registered	Registered	Registered	< 10
Ethylene glycol	107-21-1	Registered	2034733	< 10
Ethyl alcohol	64-17-5	Registered	2005786	< 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 product : about 3.8g]

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.

: 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.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Engineering measures : Not required.

Control parameters (Information of components.)

OSHA	15mg/m3 TWA (Total dust) 5mg/m3(Respirable fraction), 15mg/m3(Total dust) [Nuisance Dust] 1000ppm TWA	Titanium dioxide Coloring agent Ethyl alcohol
ACGIH	10mg/m3 TWA 100mg/m3 ceiling (particulate)(aerosol) 1000ppm TWA	Titanium dioxide / Coloring agent Ethylene glycol Ethyl alcohol
EC	6mg/m3 52mg/m3(20ppm) TWA(skin), 104mg/m3(40ppm) STEL(skin) 1000ppm	Titanium dioxide Ethylene glycol Ethyl alcohol

Personal protective equipment : Not required.

9. PHYSICAL AND CHEMICAL PROPERTIES

[] : Information of components.

Physical state and form	: Liquid.
Color	: Bright yellow.
Odor	: Faint odor.
pH	: about 8.3
Boiling point	: Not available. [Water/ 100 C]
Melting point	: <-10 C
Flash point	: Not applicable. [Ethyl alcohol/ 12.2 C(CC)]
Auto ignition temperature	: Not applicable. [Ethyl alcohol/ 363 C]
Explosion limits	: Not applicable. [Lower flammable limit / 3.28% , Upper flammable limit / 19.0% <Ethyl alcohol>]
Density	: about 1.1 / 25 C
Vapor density (air=1)	: Not available. [Ethyl alcohol/ 1.59]
Solubility in water	: Soluble.
Evaporation rate	: Not available.
Volatile	: 76-80%

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	>24000mg/kg-Rat ≥ 5000mg/kg-Rat 1650mg/kg-Cat, 4700mg/kg-Rat 3450mg/kg-Mouse	Titanium dioxide Coloring agent Ethylene glycol Ethyl alcohol
Inhalation LC50	6820mg/m ³ -4H-Rat 20000ppm-10H-Rat	Titanium dioxide Ethyl alcohol
Skin LD50	9530uL/kg-Rabbit	Ethylene glycol

Local effects Irritant;inhalation, skin, eye Ethylene glycol / Ethyl alcohol

Chronic toxicity and long term toxicity

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

The liquid defats the skin. The substance may have effects on the upper respiratory tract and central nervous system, resulting in irritation, headache, fatigue and lack of concentration. Ethyl alcohol

Signs and Symptoms of overexposure and aggravated by exposure

Inhalation	irritation,cough irritation headache,nausea	Titanium dioxide / Ethylene glycol Ethyl alcohol Coloring agent Resin
Skin contact	redness,swelling irritation irritation,dry	Coloring agent Resin Ethylene glycol / Ethyl alcohol
Eye contact	irritation,redness irritation	Titanium dioxide / Ethylene glycol Ethyl alcohol Resin
Ingestion	physiologically inert,intestinal obstruction nausea,vomiting digestive discomfort rash,vomiting	Titanium dioxide Coloring agent / Ethylene glycol Resin Ethyl alcohol

Specific effects IARC Group 2B Titanium dioxide

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 : 960820

15. REGULATORY INFORMATION

Regulations (Information of components)

Hazardous chemicals (OSHA HCS) : Titanium dioxide / Ethylene glycol / Ethyl alcohol

EU labeling : Not restricted.

CANADA Hazardous Products Act - Ingredient Disclosure List

1%over Ethylene glycol

0.1%over Ethyl alcohol

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 : (March 7, 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: PC-5M Yellow [POSCA]

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
BAN : 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 : August 24, 2001
Revision Date : March 7, 2014
File No. : 010251A_Aus Rev. 3.6.07.05

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	EINECS No.	Concentration range (wt%)
Water	7732-18-5	Registered	2317912	50- 80
Titanium dioxide	13463-67-7	Registered	2366755	< 10
Coloring agents	Registered	Registered	Registered	< 10
Resins	Registered	Registered	Registered	< 10
Ethylene glycol	107-21-1	Registered	2034733	< 10
Ethyl alcohol	64-17-5	Registered	2005786	< 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 product : about 3.8g]

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.

: 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.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Engineering measures : Not required.

Control parameters (Information of components.)

OSHA	15mg/m ³ TWA (Total dust)	Titanium dioxide Coloring agent
	5mg/m ³ (Respirable fraction),	
	15mg/m ³ (Total dust) [Nuisance Dust]	
	1000ppm TWA	
ACGIH	10mg/m ³ TWA	Titanium dioxide / Coloring agent Ethylene glycol Ethyl alcohol
	100mg/m ³ ceiling (particulate)(aerosol)	
	1000ppm TWA	
EC	6mg/m ³	Titanium dioxide Ethylene glycol
	52mg/m ³ (20ppm) TWA(skin),	
	104mg/m ³ (40ppm) STEL(skin)	
	1000ppm	
		Ethyl alcohol

Personal protective equipment : Not required.

9. PHYSICAL AND CHEMICAL PROPERTIES

[] : Information of components.

Physical state and form	: Liquid.
Color	: Yellow.
Odor	: Faint odor.
pH	: about 8.3
Boiling point	: Not available. [Water/ 100 C]
Melting point	: <-10 C
Flash point	: Not applicable. [Ethyl alcohol/ 12.2 C(CC)]
Auto ignition temperature	: Not applicable. [Ethyl alcohol/ 363 C]
Explosion limits	: Not applicable. [Lower flammable limit / 3.28% , Upper flammable limit / 19.0% <Ethyl alcohol>]
Density	: about 1.1 / 25 C
Vapor density (air=1)	: Not available. [Ethyl alcohol/ 1.59]
Solubility in water	: 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

Ingestion LD50	>24000mg/kg-Rat ≥ 5000mg/kg-Rat 1650mg/kg-Cat, 4700mg/kg-Rat 3450mg/kg-Mouse	Titanium dioxide Coloring agent Ethylene glycol Ethyl alcohol
Inhalation LC50	6820mg/m ³ -4H-Rat 20000ppm-10H-Rat	Titanium dioxide Ethyl alcohol
Skin LD50	9530uL/kg-Rabbit	Ethylene glycol

Local effects Irritant;inhalation, skin, eye Ethylene glycol / Ethyl alcohol

Chronic toxicity and long term toxicity

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

The liquid defats the skin. The substance may have effects on the upper respiratory tract and central nervous system, resulting in irritation, headache, fatigue and lack of concentration. Ethyl alcohol

Signs and Symptoms of overexposure and aggravated by exposure

Inhalation	irritation,cough irritation headache,nausea	Titanium dioxide / Ethylene glycol Ethyl alcohol Coloring agent Resin
Skin contact	redness,swelling irritation irritation,dry	Coloring agent Resin Ethylene glycol / Ethyl alcohol
Eye contact	irritation,redness irritation	Titanium dioxide / Ethylene glycol Ethyl alcohol Resin
Ingestion	physiologically inert,intestinal obstruction nausea,vomiting digestive discomfort rash,vomiting	Titanium dioxide Coloring agent / Ethylene glycol Resin Ethyl alcohol

Specific effects IARC Group 2B Titanium dioxide

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 : 960820

15. REGULATORY INFORMATION

Regulations (Information of components)

Hazardous chemicals (OSHA HCS)

: Titanium dioxide / Ethylene glycol / Ethyl alcohol

EU labeling : Not restricted.

CANADA Hazardous Products Act - Ingredient Disclosure List

1%over Ethylene glycol

0.1%over Ethyl alcohol

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 : (March 7, 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: PC-5M Orange [POSCA]

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
BAN : 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 : August 24, 2001
Revision Date : March 7, 2014
File No. : 010252A_Aus Rev. 3.6.08.05

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	EINECS No.	Concentration range (wt%)
Water	7732-18-5	Registered	2317912	50- 80
Titanium dioxide	13463-67-7	Registered	2366755	10- 30
Resins	Registered	Registered	Registered	< 10
Coloring agents	Registered	Registered	Registered	< 10
Ethylene glycol	107-21-1	Registered	2034733	< 10
Ethyl alcohol	64-17-5	Registered	2005786	< 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 product : about 3.8g]

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.

: 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.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Engineering measures : Not required.

Control parameters (Information of components.)

OSHA	15mg/m3 TWA (Total dust)	Titanium dioxide Coloring agent
	5mg/m3(Respirable fraction),	
	15mg/m3(Total dust) [Nuisance Dust]	
	1000ppm TWA	
ACGIH	10mg/m3 TWA	Titanium dioxide / Coloring agent Ethylene glycol Ethyl alcohol
	100mg/m3 ceiling (particulate)(aerosol)	
	1000ppm TWA	
EC	6mg/m3	Titanium dioxide Ethylene glycol Ethyl alcohol
	52mg/m3(20ppm) TWA(skin),	
	104mg/m3(40ppm) STEL(skin)	
	1000ppm	

Personal protective equipment : Not required.

9. PHYSICAL AND CHEMICAL PROPERTIES

[] : Information of components.

Physical state and form	: Liquid.
Color	: Orange.
Odor	: Faint odor.
pH	: about 8.3
Boiling point	: Not available. [Water/ 100 C]
Melting point	: <-10 C
Flash point	: Not applicable. [Ethyl alcohol/ 12.2 C(CC)]
Auto ignition temperature	: Not applicable. [Ethyl alcohol/ 363 C]
Explosion limits	: Not applicable. [Lower flammable limit / 3.28% , Upper flammable limit / 19.0% <Ethyl alcohol>]
Density	: about 1.1 / 25 C
Vapor density (air=1)	: Not available. [Ethyl alcohol/ 1.59]
Solubility in water	: Soluble.
Evaporation rate	: Not available.
Volatile	: 73-76%

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	>24000mg/kg-Rat ≥ 5000mg/kg-Rat 1650mg/kg-Cat, 4700mg/kg-Rat 3450mg/kg-Mouse	Titanium dioxide Coloring agent Ethylene glycol Ethyl alcohol
Inhalation LC50	6820mg/m ³ -4H-Rat 20000ppm-10H-Rat	Titanium dioxide Ethyl alcohol
Skin LD50	9530uL/kg-Rabbit	Ethylene glycol

Local effects Irritant; inhalation, skin, eye Ethylene glycol / Ethyl alcohol

Chronic toxicity and long term toxicity

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

The liquid defats the skin. The substance may have effects on the upper respiratory tract and central nervous system, resulting in irritation, headache, fatigue and lack of concentration. Ethyl alcohol

Signs and Symptoms of overexposure and aggravated by exposure

Inhalation	irritation,cough headache,nausea irritation	Titanium dioxide / Ethylene glycol Ethyl alcohol Resin Coloring agent
Skin contact	irritation redness,swelling of skin irritation,dry	Resin Coloring agent Ethylene glycol / Ethyl alcohol
Eye contact	irritation,redness irritation	Titanium dioxide / Ethylene glycol Ethyl alcohol Resin
Ingestion	physiologically inert, intestinal obstruction digestive discomfort nausea,vomiting rash,vomiting	Titanium dioxide Resin Coloring agent / Ethylene glycol Ethyl alcohol

Specific effects IARC Group 2B Titanium dioxide

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 : 960820

15. REGULATORY INFORMATION

Regulations (Information of components)

Hazardous chemicals (OSHA HCS)

: Titanium dioxide / Ethylene glycol / Ethyl alcohol

EU labeling : Not restricted.

CANADA Hazardous Products Act - Ingredient Disclosure List

1%over Ethylene glycol

0.1%over Ethyl alcohol

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 : (March 7, 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: PC-5M Pink [POSCA]

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
BAN : 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 : August 24, 2001
Revision Date : March 7, 2014
File No. : 010253A_Aus Rev. 3.6.07.06

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	EINECS No.	Concentration range (wt%)
Water	7732-18-5	Registered	2317912	50- 80
Titanium dioxide	13463-67-7	Registered	2366755	10- 30
Resins	Registered	Registered	Registered	10- 30
Ethylene glycol	107-21-1	Registered	2034733	< 10
Ethyl alcohol	64-17-5	Registered	2005786	< 10
Coloring agents	Registered	Registered	Registered	< 10
Polyoxyethylene nonylphenyl ether	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 product : about 3.9g]

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.
: 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.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Engineering measures : Not required.

Control parameters (Information of components.)

OSHA	15mg/m3 TWA	Titanium dioxide / Coloring agent Ethyl alcohol
	1000ppm TWA	
ACGIH	10mg/m3 TWA	Titanium dioxide / Coloring agent Ethyl alcohol Ethylene glycol
	1000ppm TWA	
	100mg/m3 ceiling (particulate)(aerosol)	
EC	6mg/m3	Titanium dioxide Ethylene glycol Ethyl alcohol
	52mg/m3(20ppm) TWA(skin),	
	104mg/m3(40ppm) STEL(skin)	
	1000ppm	

Personal protective equipment : Not required.

9. PHYSICAL AND CHEMICAL PROPERTIES

[] : Information of components.

Physical state and form	: Liquid.
Color	: Pink.
Odor	: Faint odor.
pH	: about 8.0
Boiling point	: Not available. [Water/ 100 C]
Melting point	: <-10 C
Flash point	: Not applicable. [Ethyl alcohol/ 12.2 C(CC)]
Auto ignition temperature	: Not applicable. [Ethyl alcohol/ 363 C]
Explosion limits	: Not applicable. [Lower flammable limit / 3.28% , Upper flammable limit / 19.0% <Ethyl alcohol>]
Density	: about 1.2 / 25 C
Vapor density (air=1)	: Not available. [Ethyl alcohol/ 1.59]
Solubility in water	: Soluble.
Evaporation rate	: Not available.
Volatile	: 68-71%

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.

13. DISPOSAL CONSIDERATIONS

Waste from residues : Disposal in accordance with all current regulations and standards.
Contaminated packaging : Not applicable.

14. TRANSPORT INFORMATION

HS Code : 960820

15. REGULATORY INFORMATION

Regulations (Information of components)

Hazardous chemicals (OSHA HCS) : Titanium dioxide / Ethylene glycol / Ethyl alcohol

EU labeling : Not restricted.

CANADA Hazardous Products Act - Ingredient Disclosure List

1%over Ethylene glycol

0.1%over Ethyl alcohol

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 : (March 7, 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: PC-5M Light blue [POSCA]

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
BAN : 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 : August 24, 2001
Revision Date : March 7, 2014
File No. : 010254A_Aus Rev. 3.6.07.05

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	EINECS No.	Concentration range (wt%)
Water	7732-18-5	Registered	2317912	50- 80
Titanium dioxide	13463-67-7	Registered	2366755	10- 30
Resins	Registered	Registered	Registered	< 10
Ethyl alcohol	64-17-5	Registered	2005786	< 10
Ethylene glycol	107-21-1	Registered	2034733	< 10
2-Propanol	67-63-0	Registered	2006617	< 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 product : about 4.2g]

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.

: 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.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Engineering measures : Not required.

Control parameters (Information of components.)

OSHA	15mg/m3 TWA (Total dust) 1000ppm TWA 400 ppm TWA, 500ppm STEL 5mg/m3(Respirable fraction), 15mg/m3(Total dust) [Nuisance Dust]	Titanium dioxide Ethyl alcohol 2-Propanol Coloring agent
ACGIH	10mg/m3 TWA 1000ppm TWA 100mg/m3 ceiling (particulate)(aerosol) 200ppm TWA, 400ppm STEL	Titanium dioxide / Coloring agent Ethyl alcohol Ethylene glycol 2-Propanol
EC	6mg/m3 1000ppm 52mg/m3(20ppm) TWA(skin), 104mg/m3(40ppm) STEL(skin)	Titanium dioxide Ethyl alcohol Ethylene glycol

Personal protective equipment : Not required.

9. PHYSICAL AND CHEMICAL PROPERTIES

[] : Information of components.

Physical state and form : Liquid.
 Color : Light blue.
 Odor : Faint odor.
 pH : about 8.4
 Boiling point : Not available. [Water/ 100 C]
 Melting point : <-10 C
 Flash point : Not applicable. [2-Propanol/ 11.7 C]
 Auto ignition temperature : Not applicable. [Ethyl alcohol/ 363 C]
 Explosion limits : Not applicable.
 [Lower flammable limit / 2.0% , Upper flammable limit / 12.7 % <2-Propanol>]
 Density : about 1.2 / 25 C
 Vapor density (air=1) : Not available. [2-Propanol/ 2.07-2.10]
 Solubility in water : Soluble.
 Evaporation rate : Not available.
 Volatile : 69-72%

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	>24000mg/kg-Rat 3450mg/kg-Mouse 1650mg/kg-Cat, 4700mg/kg-Rat 3600mg/kg-Mouse >5000mg/kg-Rat	Titanium dioxide Ethyl alcohol Ethylene glycol 2-Propanol Coloring agent
Inhalation LC50	6820mg/m ³ -4H-Rat 20000ppm-10H-Rat 11100ppm-4H-Mouse	Titanium dioxide Ethyl alcohol 2-Propanol
Skin LD50	9530uL/kg-Rabbit 12800mg/kg-Rabbit	Ethylene glycol 2-Propanol

Local effects Irritant:inhalation, skin, eye Ethyl alcohol / Ethylene glycol
 Irritant:inhalation, eye 2-Propanol

Chronic toxicity and long term toxicity

The liquid defats the skin. The substance may have effects on the upper respiratory tract and central nervous system, resulting in irritation, headache, fatigue and lack of concentration. Ethyl alcohol

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

The liquid defats the skin. 2-Propanol

Signs and Symptoms of overexposure and aggravated by exposure

Inhalation	irritation,cough headache,nausea irritation,nausea irritation	Titanium dioxide / Ethyl alcohol Ethylene glycol Resin 2-Propanol Coloring agent
Skin contact	irritation irritation,dry irritation,absorption	Resin Ethyl alcohol / Ethylene glycol 2-Propanol
Eye contact	irritation,redness irritation irritation,pain	Titanium dioxide / Ethyl alcohol Ethylene glycol Resin / Coloring agent 2-Propanol
Ingestion	physiologically inert,intestinal obstruction digestive discomfort rash,vomiting nausea,vomiting nausea,stomach pain gastric disturbances	Titanium dioxide Resin Ethyl alcohol Ethylene glycol 2-Propanol Coloring agent

Specific effects IARC Group 2B Titanium dioxide
 IARC Group 3 2-Propanol

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 : 960820

15. REGULATORY INFORMATION

Regulations (Information of components)

Hazardous chemicals (OSHA HCS)

: Titanium dioxide / Ethyl alcohol / Ethylene glycol / 2-Propanol

EU labeling : Not restricted.

CANADA Hazardous Products Act - Ingredient Disclosure List

0.1%over

Ethyl alcohol

1%over

Ethylene glycol / 2-Propanol

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 : (March 7, 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: PC-5M Brown [POSCA]

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
BAN : 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 : August 24, 2001
Revision Date : March 7, 2014
File No. : 010255A_Aus Rev. 3.6.07.05

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	EINECS No.	Concentration range (wt%)
Water	7732-18-5	Registered	2317912	50- 80
Titanium dioxide	13463-67-7	Registered	2366755	10- 30
Resins	Registered	Registered	Registered	< 10
Coloring agents	Registered	Registered	Registered	< 10
Ethylene glycol	107-21-1	Registered	2034733	< 10
Ethyl alcohol	64-17-5	Registered	2005786	< 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 product : about 3.8g]

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.

: 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.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Engineering measures : Not required.

Control parameters (Information of components.)

OSHA	15mg/m3 TWA (Total dust) 5mg/m3(Respirable fraction), 15mg/m3(Total dust) [Nuisance Dust] 1000ppm TWA	Titanium dioxide Coloring agent Ethyl alcohol
ACGIH	10mg/m3 TWA 100mg/m3 ceiling (particulate)(aerosol) 1000ppm TWA	Titanium dioxide / Coloring agent Ethylene glycol Ethyl alcohol
EC	6mg/m3 52mg/m3(20ppm) TWA(skin), 104mg/m3(40ppm) STEL(skin) 1000ppm	Titanium dioxide Ethylene glycol Ethyl alcohol

Personal protective equipment : Not required.

9. PHYSICAL AND CHEMICAL PROPERTIES

[] : Information of components.

Physical state and form	: Liquid.
Color	: Brown.
Odor	: Faint odor.
pH	: about 8.3
Boiling point	: Not available. [Water/ 100 C]
Melting point	: <-10 C
Flash point	: Not applicable. [Ethyl alcohol/ 12.2 C(CC)]
Auto ignition temperature	: Not applicable. [Ethyl alcohol/ 363 C]
Explosion limits	: Not applicable. [Lower flammable limit / 3.28% , Upper flammable limit / 19.0% <Ethyl alcohol>]
Density	: about 1.1 / 25 C
Vapor density (air=1)	: Not available. [Ethyl alcohol/ 1.59]
Solubility in water	: 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

Ingestion LD50	>24000mg/kg-Rat >5000mg/kg-Rat 1650mg/kg-Cat, 4700mg/kg-Rat 3450mg/kg-Mouse	Titanium dioxide Coloring agent Ethylene glycol Ethyl alcohol
Inhalation LC50	6820mg/m ³ -4H-Rat 20000ppm-10H-Rat	Titanium dioxide Ethyl alcohol
Skin LD50	9530uL/kg-Rabbit	Ethylene glycol

Local effects Irritant;inhalation, skin, eye Ethylene glycol / Ethyl alcohol

Chronic toxicity and long term toxicity

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

The liquid defats the skin. The substance may have effects on the upper respiratory tract and central nervous system, resulting in irritation, headache, fatigue and lack of concentration. Ethyl alcohol

Signs and Symptoms of overexposure and aggravated by exposure

Inhalation	irritation,cough headache,nausea irritation	Titanium dioxide / Ethylene glycol Ethyl alcohol Resin Coloring agent
Skin contact	irritation redness,swelling irritation,dry	Resin Coloring agent Ethylene glycol / Ethyl alcohol
Eye contact	irritation,redness irritation	Titanium dioxide / Ethylene glycol Ethyl alcohol Resin / Coloring agent
Ingestion	physiologically inert,intestinal obstruction digestive discomfort nausea,vomiting rash,vomiting	Titanium dioxide Resin Coloring agent / Ethylene glycol Ethyl alcohol

Specific effects IARC Group 2B Titanium dioxide

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 : 960820

15. REGULATORY INFORMATION

Regulations (Information of components)

Hazardous chemicals (OSHA HCS) : Titanium dioxide / Ethylene glycol / Ethyl alcohol

EU labeling : Not restricted.

CANADA Hazardous Products Act - Ingredient Disclosure List

1%over Ethylene glycol

0.1%over Ethyl alcohol

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 : (March 7, 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: PC-5M Grey [POSCA]

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
BAN : 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 : August 24, 2001
Revision Date : March 7, 2014
File No. : 010256A_Aus Rev. 3.6.07.05

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	EINECS No.	Concentration range (wt%)
Water	7732-18-5	Registered	2317912	50- 80
Titanium dioxide	13463-67-7	Registered	2366755	10- 30
Resins	Registered	Registered	Registered	< 10
Ethyl alcohol	64-17-5	Registered	2005786	< 10
Ethylene glycol	107-21-1	Registered	2034733	< 10
2-Propanol	67-63-0	Registered	2006617	< 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 product : about 4.3g]

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.

: 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.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Engineering measures : Not required.

Control parameters (Information of components.)

OSHA	15mg/m3 TWA (Total dust) 1000ppm TWA 400 ppm TWA, 500ppm STEL 3.5mg/m3 TWA	Titanium dioxide Ethyl alcohol 2-Propanol Carbon Black
ACGIH	10mg/m3 TWA 1000ppm TWA 100mg/m3 ceiling (particulate)(aerosol) 200ppm TWA, 400ppm STEL 3.5mg/m3 TWA	Titanium dioxide Ethyl alcohol Ethylene glycol 2-Propanol Carbon Black
EC	6mg/m3 1000ppm 52mg/m3(20ppm) TWA(skin), 104mg/m3(40ppm) STEL(skin) 3.5mg/m3 TWA	Titanium dioxide Ethyl alcohol Ethylene glycol Carbon Black

Personal protective equipment : Not required.

9. PHYSICAL AND CHEMICAL PROPERTIES

[] : Information of components.

Physical state and form : Liquid.
 Color : Grey.
 Odor : Faint odor.
 pH : about 8.5
 Boiling point : Not available. [Water/ 100 C]
 Melting point : <-10 C
 Flash point : Not applicable. [2-Propanol/ 11.7 C]
 Auto ignition temperature : Not applicable. [Ethyl alcohol/ 363 C]
 Explosion limits : Not applicable.
 [Lower flammable limit / 2.0% , Upper flammable limit / 12.7 % <2-Propanol>]
 Density : about 1.3 / 25 C
 Vapor density (air=1) : Not available. [2-Propanol/ 2.07-2.10]
 Solubility in water : Soluble.
 Evaporation rate : Not available.
 Volatile : 65-68%

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	>24000mg/kg-Rat 3450mg/kg-Mouse 1650mg/kg-Cat, 4700mg/kg-Rat 3600mg/kg-Mouse >10000mg/kg-Rat	Titanium dioxide Ethyl alcohol Ethylene glycol 2-Propanol Carbon Black
Inhalation LC50	6820mg/m ³ -4H-Rat 20000ppm-10H-Rat 11100ppm-4H-Mouse	Titanium dioxide Ethyl alcohol 2-Propanol
Skin LD50	9530uL/kg-Rabbit 12800mg/kg-Rabbit >3000mg/kg-Rabbit	Ethylene glycol 2-Propanol Carbon Black

Local effects	Irritant;inhalation, skin, eye Irritant;inhalation, eye Irritant;inhalation, skin	Ethyl alcohol / Ethylene glycol 2-Propanol Carbon Black
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Chronic toxicity and long term toxicity

The liquid defats the skin. The substance may have effects on the upper respiratory tract and central nervous system, resulting in irritation, headache, fatigue and lack of concentration.

Ethyl alcohol

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

Ethylene glycol

The liquid defats the skin.

2-Propanol

Lungs may be affected by repeated or prolonged exposure at very high concentrations. Respiratory disorders.

Carbon Black

Signs and Symptoms of overexposure and aggravated by exposure

Inhalation	irritation,cough headache,nausea irritation,nausea irritation	Titanium dioxide / Ethyl alcohol Ethylene glycol Resin 2-Propanol Carbon Black
Skin contact	irritation irritation,dry irritation,absorption	Resin / Carbon Black Ethyl alcohol / Ethylene glycol 2-Propanol
Eye contact	irritation,redness irritation irritation,pain mechanical irritation,discoloration of lids	Titanium dioxide / Ethyl alcohol Ethylene glycol Resin 2-Propanol Carbon Black
Ingestion	physiologically inert,intestinal obstruction digestive discomfort rash,vomiting nausea,vomiting nausea,stomach pain	Titanium dioxide Resin Ethyl alcohol Ethylene glycol 2-Propanol

Specific effects	IARC Group 2B IARC Group 3	Titanium dioxide / Carbon Black 2-Propanol
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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 : 960820

15. REGULATORY INFORMATION

Regulations (Information of components)

Hazardous chemicals (OSHA HCS)

: Titanium dioxide / Ethyl alcohol / Ethylene glycol / 2-Propanol / Carbon Black

EU labeling : Not restricted.

CANADA Hazardous Products Act - Ingredient Disclosure List

0.1%over

Ethyl alcohol

1%over

Ethylene glycol / 2-Propanol / 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 : (March 7, 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: PC-5M White [POSCA]

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
BAN : 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 : August 24, 2001
Revision Date : March 7, 2014
File No. : 010257A_Aus Rev. 3.6.07.05

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	EINECS No.	Concentration range (wt%)
Water	7732-18-5	Registered	2317912	50- 80
Titanium dioxide	13463-67-7	Registered	2366755	10- 30
Resins	Registered	Registered	Registered	< 10
Ethyl alcohol	64-17-5	Registered	2005786	< 10
Ethylene glycol	107-21-1	Registered	2034733	< 10
2-Propanol	67-63-0	Registered	2006617	< 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 product : about 4.3g]

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.

: 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.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Engineering measures : Not required.

Control parameters (Information of components.)

OSHA	15mg/m ³ TWA (Total dust) 1000ppm TWA 400 ppm TWA, 500ppm STEL	Titanium dioxide Ethyl alcohol 2-Propanol
ACGIH	10mg/m ³ TWA 1000ppm TWA 100mg/m ³ ceiling (particulate)(aerosol) 200ppm TWA, 400ppm STEL	Titanium dioxide Ethyl alcohol Ethylene glycol 2-Propanol
EC	6mg/m ³ 1000ppm 52mg/m ³ (20ppm) TWA(skin), 104mg/m ³ (40ppm) STEL(skin)	Titanium dioxide Ethyl alcohol Ethylene glycol

Personal protective equipment : Not required.

9. PHYSICAL AND CHEMICAL PROPERTIES

[] : Information of components.

Physical state and form	: Liquid.
Color	: White.
Odor	: Faint odor.
pH	: about 8.1
Boiling point	: Not available. [Water/ 100 C]
Melting point	: <-10 C
Flash point	: Not applicable. [2-Propanol/ 11.7 C]
Auto ignition temperature	: Not applicable. [Ethyl alcohol/ 363 C]
Explosion limits	: Not applicable. [Lower flammable limit / 2.0% , Upper flammable limit / 12.7 % <2-Propanol>]
Density	: about 1.3 / 25 C
Vapor density (air=1)	: Not available. [2-Propanol/ 2.07-2.10]
Solubility in water	: Soluble.
Evaporation rate	: Not available.
Volatile	: 65-68%

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	>24000mg/kg-Rat 3450mg/kg-Mouse 1650mg/kg-Cat, 4700mg/kg-Rat 3600mg/kg-Mouse	Titanium dioxide Ethyl alcohol Ethylene glycol 2-Propanol
Inhalation LC50	6820mg/m ³ -4H-Rat 20000ppm-10H-Rat 11100ppm-4H-Mouse	Titanium dioxide Ethyl alcohol 2-Propanol
Skin LD50	9530uL/kg-Rabbit 12800mg/kg-Rabbit	Ethylene glycol 2-Propanol

Local effects	Irritant:inhalation, skin, eye Irritant:inhalation, eye	Ethyl alcohol / Ethylene glycol 2-Propanol
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Chronic toxicity and long term toxicity

The liquid defats the skin. The substance may have effects on the upper respiratory tract and central nervous system, resulting in irritation, headache, fatigue and lack of concentration.	Ethyl alcohol
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The substance may have effects on the central nervous system, resulting in abnormal eye movements (nystagmus).	Ethylene glycol
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The liquid defats the skin.	2-Propanol
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Signs and Symptoms of overexposure and aggravated by exposure

Inhalation	irritation,cough headache,nausea irritation,nausea	Titanium dioxide / Ethyl alcohol Ethylene glycol Resin 2-Propanol
Skin contact	irritation irritation,dry irritation,absorption	Resin Ethyl alcohol / Ethylene glycol 2-Propanol
Eye contact	irritation,redness irritation irritation,pain	Titanium dioxide / Ethyl alcohol Ethylene glycol Resin 2-Propanol
Ingestion	physiologically inert,intestinal obstruction digestive discomfort rash,vomiting nausea,vomiting nausea,stomach pain	Titanium dioxide Resin Ethyl alcohol Ethylene glycol 2-Propanol

Specific effects	IARC Group 2B IARC Group 3	Titanium dioxide 2-Propanol
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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 : 960820

15. REGULATORY INFORMATION

Regulations (Information of components)

Hazardous chemicals (OSHA HCS)

: Titanium dioxide / Ethyl alcohol / Ethylene glycol / 2-Propanol

EU labeling : Not restricted.

CANADA Hazardous Products Act - Ingredient Disclosure List

0.1%over

Ethyl alcohol

1%over

Ethylene glycol / 2-Propanol

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 : (March 7, 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: PC-5M Gold [POSCA]

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
BAN : 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 : August 24, 2001
Revision Date : March 7, 2014
File No. : 010258A_Aus Rev. 3.6.02.06

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	EINECS No.	Concentration range (wt%)
Water	7732-18-5	Registered	2317912	50- 80
Resin	Registered	Registered	Polymer	10- 30
Aluminum paste	7429-90-5	Registered	2310723	< 10
Coloring agents	Registered	Registered	Registered	< 10
Ethylene glycol	107-21-1	Registered	2034733	< 10
Additive	Registered	Registered	Registered	< 10
Petroleum solvents	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 product : about 3.7g]

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.

: 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.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Engineering measures : Not required.

Control parameters (Information of components.)

OSHA	15mg/m ³ (total dust), 5mg/m ³ (respirable fraction) 15mg/m ³ PEL (Nuisance Dust) 500ppm	Aluminum paste Coloring agent Petroleum solvents
ACGIH	10mg/m ³ TWA (metal particulate) 10mg/m ³ TWA(Nuisance Dust) 100mg/m ³ ceiling (particulate)(aerosol) 100ppm	Aluminum paste Coloring agent Ethylene glycol Petroleum solvents
EC	52mg/m ³ (20ppm) TWA(skin), 104mg/m ³ (40ppm) STEL(skin)	Ethylene glycol

Personal protective equipment : Not required.

9. PHYSICAL AND CHEMICAL PROPERTIES

[]: Information of components.

Physical state and form : Liquid.
 Color : Gold.
 Odor : Faint odor.
 pH : about 8.2
 Boiling point : Not available. [Water/ 100 C]
 Melting point : <-10 C
 Flash point : Not applicable. [Petroleum solvents/ 40 C]
 Auto ignition temperature : Not applicable. [Petroleum solvents/ 245 C]
 Explosion limits : Not applicable.
 [Lower flammable limit / 1% , Upper flammable limit / 7% <Petroleum solvents>]
 Density : about 1.1 / 25 C
 Vapor density (air=1) : Not available. [Petroleum solvents/ 5.3]
 Solubility in water : Soluble.
 Evaporation rate : Not available.
 Volatile : 70-73%

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	>5000mg/kg-Rat 1650mg/kg-Cat, 4700mg/kg-Rat >2000mg/kg-Rat 28000mg/kg-Rat	Aluminum paste / Coloring agent Ethylene glycol Additive Petroleum solvents
Inhalation LC50	Not available.	
Skin LD50	9530uL/kg-Rabbit >2000mg/kg-Rabbit 28000m g /kg-Rabbit	Ethylene glycol Additive Petroleum solvents

Local effects

Irritant;inhalation	Aluminum paste
Irritant;inhalation, skin, eye	Ethylene glycol

Chronic toxicity and long term toxicity

Lungs may be affected by repeated or prolonged exposure to dust particles. The substance may have effects on the nervous system, resulting in impaired functions.	Aluminum paste
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

Inhalation	irritation,cough irritation irritation,nausea	Aluminum paste / Ethylene glycol Coloring agent Petroleum solvents
Skin contact	irritation,itching allergic contact dermatitis irritation,dry irritation irritation,headache	Aluminum paste Coloring agent Ethylene glycol Additive Petroleum solvents
Eye contact	irritation,eye damage irritation,redness irritation	Aluminum paste Ethylene glycol Additive
Ingestion	irritation,digestive disorders nausea,vomiting irritation,nausea	Aluminum paste Coloring agent / Ethylene glycol Petroleum solvents

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 : 960820

15. REGULATORY INFORMATION

Regulations (Information of components)

Hazardous chemicals (OSHA HCS) : Aluminum paste / Ethylene glycol

EU labeling : Not restricted.

CANADA Hazardous Products Act - Ingredient Disclosure List

1%over Aluminum paste / 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 : (March 7, 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: PC-5M Silver [POSCA]

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

Creation Date : August 24, 2001
Revision Date : March 7, 2014
File No. : 010259A_Aus Rev. 3.6.01.05

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	EINECS No.	Concentration range (wt%)
Water	7732-18-5	Registered	2317912	50- 80
Aluminum paste	7429-90-5	Registered	2310723	10- 30
Resin	Registered	Registered	Polymer	< 10
Ethylene glycol	107-21-1	Registered	2034733	< 10
Petroleum solvents	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 product : about 3.6g]

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.

: 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.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Engineering measures : Not required.

Control parameters (Information of components.)

OSHA	15mg/m ³ (total dust), 5mg/m ³ (respirable fraction) 500ppm	Aluminum paste Petroleum solvents
ACGIH	10mg/m ³ TWA (metal particulate) 100mg/m ³ ceiling (particulate)(aerosol) 100ppm	Aluminum paste Ethylene glycol Petroleum solvents
EC	52mg/m ³ (20ppm) TWA(skin), 104mg/m ³ (40ppm) STEL(skin)	Ethylene glycol

Personal protective equipment : Not required.

9. PHYSICAL AND CHEMICAL PROPERTIES

[]: Information of components.

Physical state and form	: Liquid.
Color	: Silver.
Odor	: Faint odor.
pH	: about 8.6
Boiling point	: Not available. [Water/ 100 C]
Melting point	: <-10 C
Flash point	: Not applicable. [Petroleum solvents/ 40 C]
Auto ignition temperature	: Not applicable. [Petroleum solvents/ 245 C]
Explosion limits	: Not applicable. [Lower flammable limit / 1% , Upper flammable limit / 7% <Petroleum solvents>]
Density	: about 1.1 / 25 C
Vapor density (air=1)	: Not available. [Petroleum solvents/ 5.3]
Solubility in water	: 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

Ingestion LD50	>5000mg/kg-Rat 1650mg/kg-Cat, 4700mg/kg-Rat 28000mg/kg-Rat	Aluminum paste Ethylene glycol Petroleum solvents
Inhalation LC50	Not available.	
Skin LD50	9530uL/kg-Rabbit 28000mg/kg-Rabbit	Ethylene glycol Petroleum solvents

Local effects

Irritant;inhalation
Irritant;inhalation, skin, eye

Aluminum paste
Ethylene glycol

Chronic toxicity and long term toxicity

Lungs may be affected by repeated or prolonged exposure to dust particles. The substance may have effects on the nervous system, resulting in impaired functions.

Aluminum paste

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

Inhalation	irritation,cough irritation,nausea	Aluminum paste / Ethylene glycol Petroleum solvents
Skin contact	irritation,itching irritation,dry irritation,headache irritation	Aluminum paste Ethylene glycol Petroleum solvents Additive
Eye contact	irritation,eye damage irritation,redness irritation	Aluminum paste Ethylene glycol Additive
Ingestion	irritation,digestive disorders nausea,vomiting irritation,nausea	Aluminum paste Ethylene glycol Petroleum solvents

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 : 960820

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Regulations (Information of components)

Hazardous chemicals (OSHA HCS) : Aluminum paste / Ethylene glycol

EU labeling : Not restricted.

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