

Safety data sheet for chemical products

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: PC-8K 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. : 010260A_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-8K 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. : 010261A_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-8K 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. : 010262A_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 |
| 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 |
|---------------|--|---|

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-8K 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. : 010263A_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) 15mg/m3 PEL (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 | : 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-8K 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. : 010264A_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 |
|---------------|--|--|

Chronic toxicity and long term toxicity

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

Signs and Symptoms of overexposure and aggravated by exposure

| | | |
|--------------|---|--|
| 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 |
|------------------|-------------------------------|---------------------------|

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-8K 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. : 010266A_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/m3 TWA (Total dust) 1000ppm TWA 400 ppm TWA, 500ppm STEL | Titanium dioxide Ethyl alcohol 2-Propanol |
| ACGIH | 10mg/m3 TWA 1000ppm TWA 100mg/m3 ceiling (particulate)(aerosol) 200ppm TWA, 400ppm STEL | Titanium dioxide 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 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.

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 >15000mg/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 redness,swelling | Resin Ethyl alcohol / Ethylene glycol 2-Propanol Coloring agent |
| 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 / Coloring agent 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 / 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-8K 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. : 010267A_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-8K 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. : 010268A_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) 5mg/m ³ (Respirable fraction), 15mg/m ³ (Total dust) [Nuisance Dust] 1000ppm TWA | Titanium dioxide Coloring agent Ethyl alcohol |
| ACGIH | 10mg/m ³ TWA 100mg/m ³ ceiling (particulate)(aerosol) 1000ppm TWA | Titanium dioxide / Coloring agent 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 | : 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-8K 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. : 010269A_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) 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 | : 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-8K 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. : 010270A_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. |

11. TOXICOLOGICAL INFORMATION

(Information of components)

Acute toxicity

| | | |
|-----------------|--|--|
| Ingestion LD50 | >24000mg/kg-Rat 1000mg/kg-Mouse 1650mg/kg-Cat, 4700mg/kg-Rat 3450mg/kg-Mouse 2950mg/kg-Mouse 1310mg/kg-Rat | Titanium dioxide Resin Ethylene glycol Ethyl alcohol Coloring agent Polyoxyethylene nonylphenyl ether |
| Inhalation LC50 | 6820mg/m ³ -4H-Rat 20000ppm-10H-Rat | Titanium dioxide Ethyl alcohol |
| Skin LD50 | 9530uL/kg-Rabbit 2ml/kg-Rabbit | Ethylene glycol Polyoxyethylene nonylphenyl ether |

| | | |
|---------------|--|--|
| Local effects | Irritant:inhalation, skin, eye Irritant:eye | Ethylene glycol / Ethyl alcohol Polyoxyethylene nonylphenyl ether |
|---------------|--|--|

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 | Titanium dioxide / Resin / Ethylene glycol / Ethyl alcohol Coloring agent Polyoxyethylene nonylphenyl ether |
| Skin contact | mechanical abrasion,irritation irritation,dry redness,swelling of skin irritation | Resin Ethylene glycol / Ethyl alcohol Coloring agent Polyoxyethylene nonylphenyl ether |
| Eye contact | irritation,redness irritation irritation,eye damage | Titanium dioxide / Ethylene glycol Ethyl alcohol Resin Polyoxyethylene nonylphenyl ether |
| Ingestion | physiologically inert,intestinal digestive discomfort nausea,vomiting rash,vomiting digestive disorders,diarrhea | Titanium dioxide Resin Ethylene glycol / Coloring agent Ethyl alcohol Polyoxyethylene nonylphenyl ether |
| Specific effects | IARC Group 2B IARC Group 3 | Titanium dioxide Resin |

12. ECOLOGICAL INFORMATION

Not available.

13. DISPOSAL CONSIDERATIONS

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

14. TRANSPORT INFORMATION

HS Code : 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-8K 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. : 010271A_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-8K 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. : 010272A_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/m ³ TWA (Total dust) 5mg/m ³ (Respirable fraction), 15mg/m ³ (Total dust) [Nuisance Dust] 1000ppm TWA | Titanium dioxide Coloring agent Ethyl alcohol |
| ACGIH | 10mg/m ³ TWA 100mg/m ³ ceiling (particulate)(aerosol) 1000ppm TWA | Titanium dioxide / Coloring agent 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 | : 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-8K 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. : 010273A_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/m ³ TWA (Total dust) 1000ppm TWA 400 ppm TWA, 500ppm STEL 3.5mg/m ³ TWA | Titanium dioxide Ethyl alcohol 2-Propanol Carbon Black |
| ACGIH | 10mg/m ³ TWA 1000ppm TWA 100mg/m ³ ceiling (particulate)(aerosol) 200ppm TWA, 400ppm STEL 3.5mg/m ³ TWA | Titanium dioxide Ethyl alcohol Ethylene glycol 2-Propanol Carbon Black |
| EC | 6mg/m ³ 1000ppm 52mg/m ³ (20ppm) TWA(skin), 104mg/m ³ (40ppm) STEL(skin) 3.5mg/m ³ 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 |
|---------------|---|---|

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 |
|------------------|-------------------------------|---|

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-8K 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. : 010274A_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 |
|---------------|--|---|

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 | 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 |
|------------------|-------------------------------|--------------------------------|

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.