

Safety data sheet for chemical products

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: PX-21 Black [PAINT MARKER]

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
Telex number : 2422337 MBPENC J.

Creation Date : May 14, 2001
Revision Date : January 10, 2013
File No. : 030113A Rev. 2.5.03.08

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Classification in accordance with Directive 67/548/EEC or 1999/45/EC

R11, R20/21, R41

Label elements

Labeling according to Directive 67/548/EEC

Hazard symbols



Highly flammable



Harmful

Risk phrases

R11 : Highly flammable.
R20/21 : Harmful by inhalation and in contact with skin.
R41 : Risk of serious damage to eyes.

Labeling information

The data subject of this section refer to the ink contained in this product.

Other hazards : Not available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

The chemical product is a substance or a mixture : Mixture

Chemical nature: Component parts : Ink

Chemical or generic name	CAS No.	TSCA	EINECSNo.	Concentration range (wt%)
Xylenes (Benzene, ethyl-)	1330-20-7	Registered	2155357	50- 80
	100-41-4	Registered	2028494	
Resins	Registered	Registered	Polymer	10- 30
1-Propanol, 2-methyl-	78-83-1	Registered	2011480	< 10
Coloring agents	Registered	Registered	Registered	< 10

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

4. FIRST-AID MEASURES

Inhalation:

Remove from exposure area to fresh air immediately. Give artificial respiration if not breathing. Treat symptomatically and supportively. Get medical attention immediately.

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:

Wash eyes immediately with large amounts of water or normal saline, occasionally lifting upper and lower lids, until no evidence of chemical remains. (at least 15-20 minutes)
Get medical attention immediately.

Ingestion:

Contact local poison control center or physician immediately. Never make an unconscious person vomit or drink fluids. When vomiting occurs, keep head lower than hips to help prevent aspiration. If person is unconscious, turn head to side. Get medical attention immediately, and show the SDS to the physician then.

[Ink quantity of product : about 7.8g]

5. FIRE-FIGHTING MEASURES

Extinguishing media:

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

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

Fire fighting : Move container from fire area if it can be done without risk.
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 : Take/Soak up with absorbent.

: In accordance with national, state and local regulations.

: Don't dispose in fire.

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 children.

: Avoid contact with skin and eyes.

Precautions : Use only in well-ventilated areas.

: Don't breathe the vapor.

Safe handling advice : Not available.

Storage:

- Technical measures : Keep away from oxidizing materials, ignition sources and high temperature.
- Storage condition : Avoid direct sunlight.
: Keep away from heat sources.
: Recommended temperature: 0-30 C.
- Incompatible products : Not available.
- Packaging materials : Not applicable.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

- Engineering measures : Local exhaust ventilation system are not required, but recommended.

Control parameters (Information of components.)

OSHA	100ppm(435mg/m ³) TWA 100ppm(300mg/m ³) TWA	Xylene / Benzene, ethyl- 1-Propanol, 2-methyl-
ACGIH	100ppm TWA, 150ppm STEL 100ppm TWA, 125ppm STEL 50ppm TWA	Xylene Benzene, ethyl- 1-Propanol, 2-methyl-
EC	50ppm TWA, 100ppm STEL 100ppm TWA, 200ppm STEL	Xylene Benzene, ethyl-

- Personal protective equipment : General persons are not required, but alcohol allergy persons recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

[] : Information of components.

- Physical state and form : Liquid.
- Color : Black.
- Odor : Aromatic odor.
- pH : Not applicable.
- Boiling point : Not available. [1-Propanol, 2-methyl-/ 108 C]
- Melting point : Not available.
- Flash point : Not available. [Benzene, ethyl-/ 15 C(CC)]
- Autoignition temperature : Not available. [1-Propanol, 2-methyl-/ 415 C]
- Explosion limits : Not applicable.
[Lower flammable limit / 0.8% , Upper flammable limit / 6.7% <Benzene, ethyl->]
- Density : about 0.9 / 25 C
- Vapor density (air=1) : Not available. [Benzene, ethyl-/ 3.7]
- Solubility in water : Not available. [Benzene, ethyl-/ 0.015%]
- Evaporation rate : Not available. [Xylene/ 0.6]
- Volatile : 70-73%

10. STABILITY AND REACTIVITY

Stability	: Stability.
Hazardous reactions	: Will not occur.
Conditions to avoid	: Avoid heat, flames, sparks and other sources of ignition. Avoid contact with incompatible materials.
Materials to avoid	: Not available.
Hazardous decomposition products	: Not available.

11. TOXICOLOGICAL INFORMATION

(Information of components)

Acute toxicity

Ingestion LD50	2119mg/kg-Mouse 3500mg/kg-Rat 2460mg/kg-Rat >2000mg/kg	Xylene Benzene, ethyl- 1-Propanol, 2-methyl- Coloring agent
Inhalation LC50	5000ppm-4H-Rat	Xylene
Skin LD50	>1700mg/kg-Rabbit 17800uL/kg-Rabbit 3400mg/kg-Rabbit >2000mg/kg	Xylene Benzene, ethyl- 1-Propanol, 2-methyl- Coloring agent

Local effects	Irritant;inhalation, skin, eye	Xylene / Benzene, ethyl- / 1-Propanol, 2-methyl- / Resin
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Chronic toxicity and long term toxicity

The liquid defats the skin. The substance may have effects on the central nervous system. Exposure to the substance may enhance hearing damage caused by exposure to noise. Animal tests show that this substance possibly causes toxicity to human reproduction or development.

Signs and Symptoms of overexposure and aggravated by exposure

Inhalation	irritation,nausea irritation,cough irritation,difficulty breathing	Xylene / 1-Propanol, 2-methyl- / Resin Resin Benzene, ethyl-
Skin contact	irritation,blisters irritation, absorption irritation irritation,redness	Xylene Benzene, ethyl- Resin / Coloring agent 1-Propanol, 2-methyl-
Eye contact	irritation,burn irritation,tearing irritation,redness irritation	Xylene Benzene, ethyl- Resin / 1-Propanol, 2-methyl- Coloring agent
Ingestion	irritation,nausea nausea,vomiting abdominal pain, headache	Xylene Benzene, ethyl- 1-Propanol, 2-methyl-

Specific effects	IARC Group 3 IARC Group 2B	Xylene Benzene, ethyl-
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12. ECOLOGICAL INFORMATION

Not available.

13. DISPOSAL CONSIDERATIONS

Waste from residues : Disposal in accordance with all current regulations and standards.
: Don't dispose in fire.
Contaminated packaging : Not applicable.

14. TRANSPORT INFORMATION

HS Code : 960820

15. REGULATORY INFORMATION

Regulations (Information of components)

Hazardous chemicals (OSHA HCS) : Xylene / Benzene, ethyl- / 1-Propanol, 2-methyl-

EU labeling

12.5%<=Xn;R20/21<20%<=Xn;R20/21-38, R10 : Xylene
25%<=Xn;R20, F;R11 : Benzene, ethyl-
Xi;R37/38-41, R67, R10 : 1-Propanol, 2-methyl-

CANADA Hazardous Products Act - Ingredient Disclosure List

0.1%over : Benzene, ethyl-
1%over : 1-Propanol, 2-methyl-

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 : (January 10, 2013). 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: PX-21 Red [PAINT MARKER]

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
Telex number : 2422337 MBPENC J.

Creation Date : May 14, 2001
Revision Date : January 10, 2013
File No. : 030103A Rev. 2.5.23.08

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Classification in accordance with Directive 67/548/EEC or 1999/45/EC

R11, R20/21

Label elements

Labeling according to Directive 67/548/EEC

Hazard symbols



Highly flammable



Harmful

Risk phrases

R11 : Highly flammable.

R20/21 : Harmful by inhalation and in contact with skin.

Labeling information

The data subject of this section refer to the ink contained in this product.

Other hazards : Not available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

The chemical product is a substance or a mixture : Mixture

Chemical nature: Component parts : Ink

Chemical or generic name	CAS No.	TSCA	EINECSNo.	Concentration range (wt%)
Titanium dioxide	13463-67-7	Registered	2366755	30- 50
Xylenes	1330-20-7	Registered	2155357	30- 50
(Benzene, ethyl-)	100-41-4	Registered	2028494	
Resins	Registered	Registered	Polymer	10- 30
Coloring agents	Registered	Registered	Registered	< 10

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

4. FIRST-AID MEASURES

Inhalation:

Remove from exposure area to fresh air immediately. Give artificial respiration if not breathing. Treat symptomatically and supportively. Get medical attention immediately.

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:

Wash eyes immediately with large amounts of water or normal saline, occasionally lifting upper and lower lids, until no evidence of chemical remains. (at least 15-20 minutes)
Get medical attention immediately.

Ingestion:

Contact local poison control center or physician immediately. Never make an unconscious person vomit or drink fluids. When vomiting occurs, keep head lower than hips to help prevent aspiration. If person is unconscious, turn head to side. Get medical attention immediately, and show the SDS to the physician then.

[Ink quantity of product : about 8.2g]

5. FIRE-FIGHTING MEASURES

Extinguishing media:

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

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

Fire fighting : Move container from fire area if it can be done without risk.
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 : Take/Soak up with absorbent.
: In accordance with national, state and local regulations.
: Don't dispose in fire.

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 children.
: Avoid contact with skin and eyes.

Precautions : Use only in well-ventilated areas.
: Don't breathe the vapor.

Safe handling advice : Not available.

Storage:

- Technical measures : Keep away from oxidizing materials, ignition sources and high temperature.
- Storage condition : Avoid direct sunlight.
: Keep away from heat sources.
: Recommended temperature: 0-30 C.
- Incompatible products : Not available.
- Packaging materials : Not applicable.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

- Engineering measures : Local exhaust ventilation system are not required, but recommended.

Control parameters (Information of components.)

OSHA	100ppm(435mg/m ³) TWA	Xylene / Benzene, ethyl-
ACGIH	10mg/m ³ TWA	Titanium dioxide
	100ppm TWA, 150ppm STEL	Xylene
	100ppm TWA, 125ppm STEL	Benzene, ethyl-
EC	50ppm TWA, 100ppm STEL	Xylene
	100ppm TWA, 200ppm STEL	Benzene, ethyl-

- Personal protective equipment : General persons are not required, but alcohol allergy persons recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

[] : Information of components.

- Physical state and form : Liquid.
- Color : Red.
- Odor : Aromatic odor.
- pH : Not applicable.
- Boiling point : Not available. [Benzene, ethyl-/ 136 C]
- Melting point : Not available.
- Flash point : Not available. [Benzene, ethyl-/ 15 C(CC)]
- Autoignition temperature : Not available. [Benzene, ethyl-/ 432 C]
- Explosion limits : Not applicable.
[Lower flammable limit / 0.8% , Upper flammable limit / 6.7% <Benzene, ethyl->]
- Density : about 1.3 / 25 C
- Vapor density (air=1) : Not available. [Benzene, ethyl-/ 3.7]
- Solubility in water : Not available. [Benzene, ethyl-/ 0.015%]
- Evaporation rate : Not available. [Xylene/ 0.6]
- Volatile : 46-49%

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 2119mg/kg-Mouse 3500mg/kg-Rat	Titanium dioxide Xylene Benzene, ethyl-
Inhalation LC50	>6820mg/m ³ -4H-Rat 5000ppm-4H-Rat	Titanium dioxide Xylene
Skin LD50	>10000mg/m ³ -Rabbit >1700mg/kg-Rabbit 17800uL/kg-Rabbit	Titanium dioxide Xylene Benzene, ethyl-

Local effects Irritant:inhalation, skin, eye Xylene / Benzene, ethyl- / Resin

Chronic toxicity and long term toxicity

The liquid defats the skin. The substance may have effects on the central nervous system. Exposure to the substance may enhance hearing damage caused by exposure to noise. Animal tests show that this substance possibly causes toxicity to human reproduction or development. Xylene

Signs and Symptoms of overexposure and aggravated by exposure

Inhalation	irritation,cough irritation,nausea irritation,difficulty breathing	Titanium dioxide / Resin Xylene Benzene, ethyl-
Skin contact	irritation irritation,blisters irritation,absorption	Titanium dioxide / Resin / Coloring agent Xylene Benzene, ethyl-
Eye contact	irritation irritation,burn irritation, tearing irritation,redness	Titanium dioxide / Coloring agent Xylene Benzene, ethyl- Resin
Ingestion	irritation,nausea nausea,vomiting	Xylene Benzene, ethyl-

Specific effects IARC Group 3 Xylene
 IARC Group 2B Benzene, ethyl-

12. ECOLOGICAL INFORMATION

Not available.

13. DISPOSAL CONSIDERATIONS

Waste from residues : Disposal in accordance with all current regulations and standards.
 : Don't dispose in fire.

Contaminated packaging : Not applicable.

14. TRANSPORT INFORMATION

HS Code : 960820

15. REGULATORY INFORMATION

Regulations (Information of components)

Hazardous chemicals (OSHA HCS) : Titanium dioxide / Xylene / Benzene, ethyl-

EU labeling

12.5%<=Xn;R20/21<20%<=Xn;R20/21-38, R10 : Xylene

25%<=Xn;R20, F;R11 : Benzene, ethyl-

CANADA Hazardous Products Act - Ingredient Disclosure List

0.1%over : Benzene, ethyl-

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 : (January 10, 2013). 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: PX-21 Blue [PAINT MARKER]

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
Telex number : 2422337 MBPENC J.

Creation Date : May 14, 2001
Revision Date : January 10, 2013
File No. : 030104A Rev. 2.5.23.08

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Classification in accordance with Directive 67/548/EEC or 1999/45/EC

R11, R20/21

Label elements

Labeling according to Directive 67/548/EEC

Hazard symbols



Highly flammable



Harmful

Risk phrases

R11 : Highly flammable.

R20/21 : Harmful by inhalation and in contact with skin.

Labeling information

The data subject of this section refer to the ink contained in this product.

Other hazards : Not available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

The chemical product is a substance or a mixture : Mixture

Chemical nature: Component parts : Ink

Chemical or generic name	CAS No.	TSCA	EINECSNo.	Concentration range (wt%)
Titanium dioxide	13463-67-7	Registered	2366755	30- 50
Xylenes (Benzene, ethyl-)	1330-20-7 100-41-4	Registered Registered	2155357 2028494	30- 50
Resins	Registered	Registered	Polymer	10- 30
Coloring agents	Registered	Registered	Registered	< 10

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

4. FIRST-AID MEASURES

Inhalation:

Remove from exposure area to fresh air immediately. Give artificial respiration if not breathing. Treat symptomatically and supportively. Get medical attention immediately.

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:

Wash eyes immediately with large amounts of water or normal saline, occasionally lifting upper and lower lids, until no evidence of chemical remains. (at least 15-20 minutes)

Get medical attention immediately.

Ingestion:

Contact local poison control center or physician immediately. Never make an unconscious person vomit or drink fluids. When vomiting occurs, keep head lower than hips to help prevent aspiration. If person is unconscious, turn head to side. Get medical attention immediately, and show the SDS to the physician then.

[Ink quantity of product : about 8.2g]

5. FIRE-FIGHTING MEASURES

Extinguishing media:

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

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

Fire fighting : Move container from fire area if it can be done without risk.
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 : Take/Soak up with absorbent.

: In accordance with national, state and local regulations.

: Don't dispose in fire.

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 children.

: Avoid contact with skin and eyes.

Precautions : Use only in well-ventilated areas.

: Don't breathe the vapor.

Safe handling advice : Not available.

Storage:

- Technical measures : Keep away from oxidizing materials, ignition sources and high temperature.
- Storage condition : Avoid direct sunlight.
: Keep away from heat sources.
: Recommended temperature: 0-30 C.
- Incompatible products : Not available.
- Packaging materials : Not applicable.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

- Engineering measures : Local exhaust ventilation system are not required, but recommended.

Control parameters (Information of components.)

OSHA	100ppm(435mg/m ³) TWA	Xylene / Benzene, ethyl-
ACGIH	10mg/m ³ TWA 100ppm TWA, 150ppm STEL 100ppm TWA, 125ppm STEL	Titanium dioxide Xylene Benzene, ethyl-
EC	50ppm TWA, 100ppm STEL 100ppm TWA, 200ppm STEL	Xylene Benzene, ethyl-

- Personal protective equipment : General persons are not required, but alcohol allergy persons recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

[] : Information of components.

- Physical state and form : Liquid.
- Color : Blue.
- Odor : Aromatic odor.
- pH : Not applicable.
- Boiling point : Not available. [Benzene, ethyl-/ 136 C]
- Melting point : Not available.
- Flash point : Not available. [Benzene, ethyl-/ 15 C(CC)]
- Autoignition temperature : Not available. [Benzene, ethyl-/ 432 C]
- Explosion limits : Not applicable.
[Lower flammable limit / 0.8% , Upper flammable limit / 6.7% <Benzene, ethyl->]
- Density : about 1.3 / 25 C
- Vapor density (air=1) : Not available. [Benzene, ethyl-/ 3.7]
- Solubility in water : Not available. [Benzene, ethyl-/ 0.015%]
- Evaporation rate : Not available. [Xylene/ 0.6]
- Volatile : 46-49%

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 2119mg/kg-Mouse 3500mg/kg-Rat 525mg/kg-Rat	Titanium dioxide Xylene Benzene, ethyl- Coloring agent
Inhalation LC50	>6820mg/m ³ -4H-Rat 5000ppm-4H-Rat	Titanium dioxide Xylene
Skin LD50	>10000mg/m ³ -Rabbit >1700mg/kg-Rabbit 17800uL/kg-Rabbit >2000mg/kg	Titanium dioxide Xylene Benzene, ethyl- Coloring agent

Local effects Irritant;inhalation, skin, eye Xylene / Benzene, ethyl- / Resin

Chronic toxicity and long term toxicity

The liquid defats the skin. The substance may have effects on the central nervous system. Exposure to the substance may enhance hearing damage caused by exposure to noise. Animal tests show that this substance possibly causes toxicity to human reproduction or development. Xylene

Signs and Symptoms of overexposure and aggravated by exposure

Inhalation	irritation,cough irritation,nausea irritation,difficulty breathing	Titanium dioxide / Resin Xylene Benzene, ethyl-
Skin contact	irritation irritation,blisters irritation,absorption	Titanium dioxide / Resin / Coloring agent Xylene Benzene, ethyl-
Eye contact	irritation irritation,burn irritation,tearing irritation,redness	Titanium dioxide / Coloring agent Xylene Benzene, ethyl- Resin
Ingestion	irritation,nausea nausea,vomiting	Xylene Benzene, ethyl-
Specific effects	IARC Group 3 IARC Group 2B	Xylene Benzene, ethyl-

12. ECOLOGICAL INFORMATION

Not available.

13. DISPOSAL CONSIDERATIONS

Waste from residues : Disposal in accordance with all current regulations and standards.
 : Don't dispose in fire.

Contaminated packaging : Not applicable.

14. TRANSPORT INFORMATION

HS Code : 960820

15. REGULATORY INFORMATION

Regulations (Information of components)

Hazardous chemicals (OSHA HCS) : Titanium dioxide / Xylene / Benzene, ethyl-

EU labeling

12.5%<=Xn;R20/21<20%<=Xn;R20/21-38, R10 : Xylene

25%<=Xn;R20, F;R11 : Benzene, ethyl-

CANADA Hazardous Products Act - Ingredient Disclosure List

0.1%over : Benzene, ethyl-

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 : (January 10, 2013). 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: PX-21 Yellow [PAINT MARKER]

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
Telex number : 2422337 MBPENC J.

Creation Date : May 14, 2001
Revision Date : January 10, 2013
File No. : 030102A Rev. 2.5.23.08

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Classification in accordance with Directive 67/548/EEC or 1999/45/EC

R11, R20/21

Label elements

Labeling according to Directive 67/548/EEC

Hazard symbols



Highly flammable



Harmful

Risk phrases

R11 : Highly flammable.

R20/21 : Harmful by inhalation and in contact with skin.

Labeling information

The data subject of this section refer to the ink contained in this product.

Other hazards : Not available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

The chemical product is a substance or a mixture : Mixture

Chemical nature: Component parts : Ink

Chemical or generic name	CAS No.	TSCA	EINECSNo.	Concentration range (wt%)
Titanium dioxide	13463-67-7	Registered	2366755	30- 50
Xylenes	1330-20-7	Registered	2155357	30- 50
(Benzene, ethyl-)	100-41-4	Registered	2028494	
Resins	Registered	Registered	Polymer	10- 30
Coloring agent	Registered	Registered	Registered	< 10

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

4. FIRST-AID MEASURES

Inhalation:

Remove from exposure area to fresh air immediately. Give artificial respiration if not breathing. Treat symptomatically and supportively. Get medical attention immediately.

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:

Wash eyes immediately with large amounts of water or normal saline, occasionally lifting upper and lower lids, until no evidence of chemical remains. (at least 15-20 minutes)
Get medical attention immediately.

Ingestion:

Contact local poison control center or physician immediately. Never make an unconscious person vomit or drink fluids. When vomiting occurs, keep head lower than hips to help prevent aspiration. If person is unconscious, turn head to side. Get medical attention immediately, and show the SDS to the physician then.

[Ink quantity of product : about 8.5g]

5. FIRE-FIGHTING MEASURES

Extinguishing media:

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

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

Fire fighting : Move container from fire area if it can be done without risk.
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 : Take/Soak up with absorbent.
: In accordance with national, state and local regulations.
: Don't dispose in fire.

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 children.
: Avoid contact with skin and eyes.

Precautions : Use only in well-ventilated areas.
: Don't breathe the vapor.

Safe handling advice : Not available.

Storage:

- Technical measures : Keep away from oxidizing materials, ignition sources and high temperature.
- Storage condition : Avoid direct sunlight.
: Keep away from heat sources.
: Recommended temperature: 0-30 C.
- Incompatible products : Not available.
- Packaging materials : Not applicable.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

- Engineering measures : Local exhaust ventilation system are not required, but recommended.

Control parameters (Information of components.)

OSHA	100ppm(435mg/m ³) TWA	Xylene / Benzene, ethyl-
ACGIH	10mg/m ³ TWA 100ppm TWA, 150ppm STEL 100ppm TWA, 125ppm STEL	Titanium dioxide Xylene Benzene, ethyl-
EC	50ppm TWA, 100ppm STEL 100ppm TWA, 200ppm STEL	Xylene Benzene, ethyl-

- Personal protective equipment : General persons are not required, but alcohol allergy persons recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

[] : Information of components.

- Physical state and form : Liquid.
- Color : Yellow.
- Odor : Aromatic odor.
- pH : Not applicable.
- Boiling point : Not available. [Benzene, ethyl-/ 136 C]
- Melting point : Not available.
- Flash point : Not available. [Benzene, ethyl-/ 15 C(CC)]
- Autoignition temperature : Not available. [Benzene, ethyl-/ 432 C]
- Explosion limits : Not applicable.
[Lower flammable limit / 0.8% , Upper flammable limit / 6.7% <Benzene, ethyl->]
- Density : about 1.3 / 25 C
- Vapor density (air=1) : Not available. [Benzene, ethyl-/ 3.7]
- Solubility in water : Not available. [Benzene, ethyl-/ 0.015%]
- Evaporation rate : Not available. [Xylene/ 0.6]
- Volatile : 44-47%

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 2119mg/kg-Mouse 3500mg/kg-Rat	Titanium dioxide Xylene Benzene, ethyl-
Inhalation LC50	>6820mg/m ³ -4H-Rat 5000ppm-4H-Rat	Titanium dioxide Xylene
Skin LD50	>10000mg/m ³ -Rabbit >1700mg/kg-Rabbit 17800uL/kg-Rabbit	Titanium dioxide Xylene Benzene, ethyl-

Local effects Irritant:inhalation, skin, eye Xylene / Benzene, ethyl- / Resin

Chronic toxicity and long term toxicity

The liquid defats the skin. The substance may have effects on the central nervous system. Exposure to the substance may enhance hearing damage caused by exposure to noise. Animal tests show that this substance possibly causes toxicity to human reproduction or development. Xylene

Signs and Symptoms of overexposure and aggravated by exposure

Inhalation	irritation,cough irritation,nausea irritation,difficulty breathing	Titanium dioxide / Resin Xylene Benzene, ethyl-
Skin contact	irritation irritation,blisters irritation,absorption	Titanium dioxide / Resin / Coloring agent Xylene Benzene, ethyl-
Eye contact	irritation irritation,burn irritation,tearing irritation,redness	Titanium dioxide / Coloring agent Xylene Benzene, ethyl- Resin
Ingestion	irritation, nausea nausea,vomiting	Xylene Benzene, ethyl-

Specific effects IARC Group 3 Xylene
IARC Group 2B Benzene, ethyl-

12. ECOLOGICAL INFORMATION

Not available.

13. DISPOSAL CONSIDERATIONS

Waste from residues : Disposal in accordance with all current regulations and standards.
: Don't dispose in fire.
Contaminated packaging : Not applicable.

14. TRANSPORT INFORMATION

HS Code : 960820

15. REGULATORY INFORMATION

Regulations (Information of components)

Hazardous chemicals (OSHA HCS) : Titanium dioxide / Xylene / Benzene, ethyl-

EU labeling

12.5%<=Xn;R20/21<20%<=Xn;R20/21-38, R10 : Xylene

25%<=Xn;R20, F;R11 : Benzene, ethyl-

CANADA Hazardous Products Act - Ingredient Disclosure List

0.1%over : Benzene, ethyl-

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 : (January 10, 2013). 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: PX-21 Light green [PAINT MARKER]

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
Telex number : 2422337 MBPENC J.

Creation Date : May 14, 2001
Revision Date : January 10, 2013
File No. : 030109A Rev. 2.5.23.08

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Classification in accordance with Directive 67/548/EEC or 1999/45/EC

R11, R20/21

Label elements

Labeling according to Directive 67/548/EEC

Hazard symbols



Highly flammable



Harmful

Risk phrases

R11 : Highly flammable.

R20/21 : Harmful by inhalation and in contact with skin.

Labeling information

The data subject of this section refer to the ink contained in this product.

Other hazards : Not available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

The chemical product is a substance or a mixture : Mixture

Chemical nature: Component parts : Ink

Chemical or generic name	CAS No.	TSCA	EINECSNo.	Concentration range (wt%)
Titanium dioxide	13463-67-7	Registered	2366755	30- 50
Xylenes	1330-20-7	Registered	2155357	30- 50
(Benzene, ethyl-)	100-41-4	Registered	2028494	
Resins	Registered	Registered	Polymer	10- 30
Coloring agents	Registered	Registered	Registered	< 10

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

4. FIRST-AID MEASURES

Inhalation:

Remove from exposure area to fresh air immediately. Give artificial respiration if not breathing. Treat symptomatically and supportively. Get medical attention immediately.

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:

Wash eyes immediately with large amounts of water or normal saline, occasionally lifting upper and lower lids, until no evidence of chemical remains. (at least 15-20 minutes)
Get medical attention immediately.

Ingestion:

Contact local poison control center or physician immediately. Never make an unconscious person vomit or drink fluids. When vomiting occurs, keep head lower than hips to help prevent aspiration. If person is unconscious, turn head to side. Get medical attention immediately, and show the SDS to the physician then.

[Ink quantity of product : about 8.5g]

5. FIRE-FIGHTING MEASURES

Extinguishing media:

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

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

Fire fighting : Move container from fire area if it can be done without risk.
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 : Take/Soak up with absorbent.
: In accordance with national, state and local regulations.
: Don't dispose in fire.

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 children.
: Avoid contact with skin and eyes.

Precautions : Use only in well-ventilated areas.
: Don't breathe the vapor.

Safe handling advice : Not available.

Storage:

- Technical measures : Keep away from oxidizing materials, ignition sources and high temperature.
- Storage condition : Avoid direct sunlight.
: Keep away from heat sources.
: Recommended temperature: 0-30 C.
- Incompatible products : Not available.
- Packaging materials : Not applicable.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

- Engineering measures : Local exhaust ventilation system are not required, but recommended.

Control parameters (Information of components.)

OSHA	100ppm(435mg/m ³) TWA	Xylene / Benzene, ethyl-
ACGIH	10mg/m ³ TWA	Titanium dioxide
	100ppm TWA, 150ppm STEL	Xylene
	100ppm TWA, 125ppm STEL	Benzene, ethyl-
EC	50ppm TWA, 100ppm STEL	Xylene
	100ppm TWA, 200ppm STEL	Benzene, ethyl-

- Personal protective equipment : General persons are not required, but alcohol allergy persons recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

[] : Information of components.

- Physical state and form : Liquid.
- Color : Light green.
- Odor : Aromatic odor.
- pH : Not applicable.
- Boiling point : Not available. [Benzene, ethyl-/ 136 C]
- Melting point : Not available.
- Flash point : Not available. [Benzene, ethyl-/ 15 C(CC)]
- Autoignition temperature : Not available. [Benzene, ethyl-/ 432 C]
- Explosion limits : Not applicable.
[Lower flammable limit / 0.8% , Upper flammable limit / 6.7% <Benzene, ethyl->]
- Density : about 1.3 / 25 C
- Vapor density (air=1) : Not available. [Benzene, ethyl-/ 3.7]
- Solubility in water : Not available. [Benzene, ethyl-/ 0.015%]
- Evaporation rate : Not available. [Xylene/ 0.6]
- Volatile : 44-47%

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 2119mg/kg-Mouse 3500mg/kg-Rat >5000mg/kg-Rat	Titanium dioxide Xylene Benzene, ethyl- Coloring agent
Inhalation LC50	>6820mg/m ³ -4H-Rat 5000ppm-4H-Rat	Titanium dioxide Xylene
Skin LD50	>10000mg/m ³ -Rabbit >1700mg/kg-Rabbit 17800uL/kg-Rabbit	Titanium dioxide Xylene Benzene, ethyl-

Local effects Irritant:inhalation, skin, eye Xylene / Benzene, ethyl- / Resin

Chronic toxicity and long term toxicity

The liquid defats the skin. The substance may have effects on the central nervous system. Exposure to the substance may enhance hearing damage caused by exposure to noise. Animal tests show that this substance possibly causes toxicity to human reproduction or development. Xylene

Signs and Symptoms of overexposure and aggravated by exposure

Inhalation	irritation,cough irritation,nausea irritation,difficulty breathing	Titanium dioxide / Resin Xylene Benzene, ethyl-
Skin contact	irritation irritation,blisters irritation,absorption	Titanium dioxide / Resin / Coloring agent Xylene Benzene, ethyl-
Eye contact	irritation irritation,burn irritation, tearing irritation,redness	Titanium dioxide / Coloring agent Xylene Benzene, ethyl- Resin
Ingestion	irritation,nausea nausea,vomiting	Xylene Benzene, ethyl-

Specific effects IARC Group 3 Xylene
 IARC Group 2B Benzene, ethyl-

12. ECOLOGICAL INFORMATION

Not available.

13. DISPOSAL CONSIDERATIONS

Waste from residues : Disposal in accordance with all current regulations and standards.
 : Don't dispose in fire.
Contaminated packaging : Not applicable.

14. TRANSPORT INFORMATION

HS Code : 960820

15. REGULATORY INFORMATION

Regulations (Information of components)

Hazardous chemicals (OSHA HCS) : Titanium dioxide / Xylene / Benzene, ethyl-

EU labeling

12.5%<=Xn;R20/21<20%<=Xn;R20/21-38, R10 : Xylene

25%<=Xn;R20, F;R11 : Benzene, ethyl-

CANADA Hazardous Products Act - Ingredient Disclosure List

0.1%over : Benzene, ethyl-

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 : (January 10, 2013). 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: PX-21 Green [PAINT MARKER]

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
Telex number : 2422337 MBPENC J.

Creation Date : May 14, 2001
Revision Date : January 10, 2013
File No. : 030105A Rev. 2.5.24.08

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Classification in accordance with Directive 67/548/EEC or 1999/45/EC

R11, R20/21

Label elements

Labeling according to Directive 67/548/EEC

Hazard symbols



Highly flammable



Harmful

Risk phrases

R11 : Highly flammable.

R20/21 : Harmful by inhalation and in contact with skin.

Labeling information

The data subject of this section refer to the ink contained in this product.

Other hazards : Not available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

The chemical product is a substance or a mixture : Mixture

Chemical nature: Component parts : Ink

Chemical or generic name	CAS No.	TSCA	EINECSNo.	Concentration range (wt%)
Titanium dioxide	13463-67-7	Registered	2366755	30- 50
Xylenes	1330-20-7	Registered	2155357	30- 50
(Benzene, ethyl-)	100-41-4	Registered	2028494	
Resins	Registered	Registered	Polymer	10- 30
Coloring agents	Registered	Registered	Registered	< 10

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

4. FIRST-AID MEASURES

Inhalation:

Remove from exposure area to fresh air immediately. Give artificial respiration if not breathing. Treat symptomatically and supportively. Get medical attention immediately.

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:

Wash eyes immediately with large amounts of water or normal saline, occasionally lifting upper and lower lids, until no evidence of chemical remains. (at least 15-20 minutes)
Get medical attention immediately.

Ingestion:

Contact local poison control center or physician immediately. Never make an unconscious person vomit or drink fluids. When vomiting occurs, keep head lower than hips to help prevent aspiration. If person is unconscious, turn head to side. Get medical attention immediately, and show the SDS to the physician then.

[Ink quantity of product : about 8.2g]

5. FIRE-FIGHTING MEASURES

Extinguishing media:

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

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

Fire fighting : Move container from fire area if it can be done without risk.
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 : Take/Soak up with absorbent.
: In accordance with national, state and local regulations.
: Don't dispose in fire.

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 children.
: Avoid contact with skin and eyes.

Precautions : Use only in well-ventilated areas.
: Don't breathe the vapor.

Safe handling advice : Not available.

Storage:

- Technical measures : Keep away from oxidizing materials, ignition sources and high temperature.
- Storage condition : Avoid direct sunlight.
: Keep away from heat sources.
: Recommended temperature: 0-30 C.
- Incompatible products : Not available.
- Packaging materials : Not applicable.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

- Engineering measures : Local exhaust ventilation system are not required, but recommended.

Control parameters (Information of components.)

OSHA	100ppm(435mg/m ³) TWA	Xylene / Benzene, ethyl-
ACGIH	10mg/m ³ TWA 100ppm TWA, 150ppm STEL 100ppm TWA, 125ppm STEL	Titanium dioxide Xylene Benzene, ethyl-
EC	50ppm TWA, 100ppm STEL 100ppm TWA, 200ppm STEL	Xylene Benzene, ethyl-

- Personal protective equipment : General persons are not required, but alcohol allergy persons recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

[] : Information of components.

- Physical state and form : Liquid.
- Color : Green.
- Odor : Aromatic odor.
- pH : Not applicable.
- Boiling point : Not available. [Benzene, ethyl-/ 136 C]
- Melting point : Not available.
- Flash point : Not available. [Benzene, ethyl-/ 15 C(CC)]
- Autoignition temperature : Not available. [Benzene, ethyl-/ 432 C]
- Explosion limits : Not applicable.
[Lower flammable limit / 0.8% , Upper flammable limit / 6.7% <Benzene, ethyl->]
- Density : about 1.3 / 25 C
- Vapor density (air=1) : Not available. [Benzene, ethyl-/ 3.7]
- Solubility in water : Not available. [Benzene, ethyl-/ 0.015%]
- Evaporation rate : Not available. [Xylene/ 0.6]
- Volatile : 46-49%

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 2119mg/kg-Mouse 3500mg/kg-Rat >5000mg/kg-Rat	Titanium dioxide Xylene Benzene, ethyl- Coloring agent
Inhalation LC50	>6820mg/m ³ -4H-Rat 5000ppm-4H-Rat	Titanium dioxide Xylene
Skin LD50	>10000mg/m ³ -Rabbit >1700mg/kg-Rabbit 17800uL/kg-Rabbit	Titanium dioxide Xylene Benzene, ethyl-

Local effects Irritant:inhalation, skin, eye Xylene / Benzene, ethyl- / Resin

Chronic toxicity and long term toxicity

The liquid defats the skin. The substance may have effects on the central nervous system. Exposure to the substance may enhance hearing damage caused by exposure to noise. Animal tests show that this substance possibly causes toxicity to human reproduction or development. Xylene

Signs and Symptoms of overexposure and aggravated by exposure

Inhalation	irritation,cough irritation,nausea irritation,difficulty breathing	Titanium dioxide / Resin Xylene Benzene, ethyl-
Skin contact	irritation irritation,blisters irritation,absorption	Titanium dioxide / Resin / Coloring agent Xylene Benzene, ethyl-
Eye contact	irritation irritation, burn irritation,tearing irritation,redness	Titanium dioxide / Coloring agent Xylene Benzene, ethyl- Resin
Ingestion	irritation,nausea nausea,vomiting	Xylene Benzene, ethyl-

Specific effects IARC Group 3 Xylene
 IARC Group 2B Benzene, ethyl-

12. ECOLOGICAL INFORMATION

Not available.

13. DISPOSAL CONSIDERATIONS

Waste from residues : Disposal in accordance with all current regulations and standards.
 : Don't dispose in fire.

Contaminated packaging : Not applicable.

14. TRANSPORT INFORMATION

HS Code : 960820

15. REGULATORY INFORMATION

Regulations (Information of components)

Hazardous chemicals (OSHA HCS) : Titanium dioxide / Xylene / Benzene, ethyl-

EU labeling

12.5%<=Xn;R20/21<20%<=Xn;R20/21-38, R10 : Xylene

25%<=Xn;R20, F;R11 : Benzene, ethyl-

CANADA Hazardous Products Act - Ingredient Disclosure List

0.1%over : Benzene, ethyl-

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 : (January 10, 2013). 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: PX-21 Violet [PAINT MARKER]

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
Telex number : 2422337 MBPENC J.

Creation Date : May 14, 2001
Revision Date : January 10, 2013
File No. : 030110A Rev .2.5.22.08

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Classification in accordance with Directive 67/548/EEC or 1999/45/EC

R11, R20/21

Label elements

Labeling according to Directive 67/548/EEC

Hazard symbols



Highly flammable



Harmful

Risk phrases

R11 : Highly flammable.

R20/21 : Harmful by inhalation and in contact with skin.

Labeling information

The data subject of this section refer to the ink contained in this product.

Other hazards : Not available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

The chemical product is a substance or a mixture : Mixture

Chemical nature: Component parts : Ink

Chemical or generic name	CAS No.	TSCA	EINECSNo.	Concentration range (wt%)
Titanium dioxide	13463-67-7	Registered	2366755	30- 50
Xylenes	1330-20-7	Registered	2155357	30- 50
(Benzene, ethyl-)	100-41-4	Registered	2028494	
Resins	Registered	Registered	Polymer	10- 30
Coloring agents	Registered	Registered	Registered	< 10

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

4. FIRST-AID MEASURES

Inhalation:

Remove from exposure area to fresh air immediately. Give artificial respiration if not breathing. Treat symptomatically and supportively. Get medical attention immediately.

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:

Wash eyes immediately with large amounts of water or normal saline, occasionally lifting upper and lower lids, until no evidence of chemical remains. (at least 15-20 minutes)
Get medical attention immediately.

Ingestion:

Contact local poison control center or physician immediately. Never make an unconscious person vomit or drink fluids. When vomiting occurs, keep head lower than hips to help prevent aspiration. If person is unconscious, turn head to side. Get medical attention immediately, and show the SDS to the physician then.

[Ink quantity of product : about 8.3g]

5. FIRE-FIGHTING MEASURES

Extinguishing media:

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

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

Fire fighting : Move container from fire area if it can be done without risk.
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 : Take/Soak up with absorbent.

: In accordance with national, state and local regulations.

: Don't dispose in fire.

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 children.
: Avoid contact with skin and eyes.

Precautions : Use only in well-ventilated areas.

: Don't breathe the vapor.

Safe handling advice : Not available.

Storage:

- Technical measures : Keep away from oxidizing materials, ignition sources and high temperature.
- Storage condition : Avoid direct sunlight.
: Keep away from heat sources.
: Recommended temperature: 0-30 C.
- Incompatible products : Not available.
- Packaging materials : Not applicable.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

- Engineering measures : Local exhaust ventilation system are not required, but recommended.

Control parameters (Information of components.)

OSHA	100ppm(435mg/m ³) TWA	Xylene / Benzene, ethyl-
ACGIH	10mg/m ³ TWA 100ppm TWA, 150ppm STEL 100ppm TWA, 125ppm STEL	Titanium dioxide Xylene Benzene, ethyl-
EC	50ppm TWA, 100ppm STEL 100ppm TWA, 200ppm STEL	Xylene Benzene, ethyl-

- Personal protective equipment : General persons are not required, but alcohol allergy persons recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

[] : Information of components.

- Physical state and form : Liquid.
- Color : Violet.
- Odor : Aromatic odor.
- pH : Not applicable.
- Boiling point : Not available. [Benzene, ethyl-/ 136 C]
- Melting point : Not available.
- Flash point : Not available. [Benzene, ethyl-/ 15 C(CC)]
- Autoignition temperature : Not available. [Benzene, ethyl-/ 432 C]
- Explosion limits : Not applicable.
[Lower flammable limit / 0.8% , Upper flammable limit / 6.7% <Benzene, ethyl->]
- Density : about 1.3 / 25 C
- Vapor density (air=1) : Not available. [Benzene, ethyl-/ 3.7]
- Solubility in water : Not available. [Benzene, ethyl-/ 0.015%]
- Evaporation rate : Not available. [Xylene/ 0.6]
- Volatile : 45-48%

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.

14. TRANSPORT INFORMATION

HS Code : 960820

15. REGULATORY INFORMATION

Regulations (Information of components)

Hazardous chemicals (OSHA HCS) : Titanium dioxide / Xylene / Benzene, ethyl-

EU labeling

12.5%<=Xn;R20/21<20%<=Xn;R20/21-38, R10 : Xylene

25%<=Xn;R20, F;R11 : Benzene, ethyl-

CANADA Hazardous Products Act - Ingredient Disclosure List

0.1%over : Benzene, ethyl-

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 : (January 10, 2013). 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: PX-21 Orange [PAINT MARKER]

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
Telex number : 2422337 MBPENC J.

Creation Date : May 14, 2001
Revision Date : January 10, 2013
File No. : 030107A Rev. 2.5.22.08

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Classification in accordance with Directive 67/548/EEC or 1999/45/EC

R11, R20/21

Label elements

Labeling according to Directive 67/548/EEC

Hazard symbols



Highly flammable



Harmful

Risk phrases

R11 : Highly flammable.

R20/21 : Harmful by inhalation and in contact with skin.

Labeling information

The data subject of this section refer to the ink contained in this product.

Other hazards : Not available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

The chemical product is a substance or a mixture : Mixture

Chemical nature: Component parts : Ink

Chemical or generic name	CAS No.	TSCA	EINECSNo.	Concentration range (wt%)
Titanium dioxide	13463-67-7	Registered	2366755	30- 50
Xylenes	1330-20-7	Registered	2155357	30- 50
(Benzene, ethyl-)	100-41-4	Registered	2028494	
Resins	Registered	Registered	Polymer	10- 30
Coloring agents	Registered	Registered	Registered	< 10

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

4. FIRST-AID MEASURES

Inhalation:

Remove from exposure area to fresh air immediately. Give artificial respiration if not breathing. Treat symptomatically and supportively. Get medical attention immediately.

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:

Wash eyes immediately with large amounts of water or normal saline, occasionally lifting upper and lower lids, until no evidence of chemical remains. (at least 15-20 minutes)
Get medical attention immediately.

Ingestion:

Contact local poison control center or physician immediately. Never make an unconscious person vomit or drink fluids. When vomiting occurs, keep head lower than hips to help prevent aspiration. If person is unconscious, turn head to side. Get medical attention immediately, and show the SDS to the physician then.

[Ink quantity of product : about 8.5g]

5. FIRE-FIGHTING MEASURES

Extinguishing media:

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

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

Fire fighting : Move container from fire area if it can be done without risk.
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 : Take/Soak up with absorbent.

: In accordance with national, state and local regulations.

: Don't dispose in fire.

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 children.
: Avoid contact with skin and eyes.

Precautions : Use only in well-ventilated areas.

: Don't breathe the vapor.

Safe handling advice : Not available.

Storage:

- Technical measures : Keep away from oxidizing materials, ignition sources and high temperature.
- Storage condition : Avoid direct sunlight.
: Keep away from heat sources.
: Recommended temperature: 0-30 C.
- Incompatible products : Not available.
- Packaging materials : Not applicable.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

- Engineering measures : Local exhaust ventilation system are not required, but recommended.

Control parameters (Information of components.)

OSHA	100ppm(435mg/m ³) TWA	Xylene / Benzene, ethyl-
ACGIH	10mg/m ³ TWA 100ppm TWA, 150ppm STEL 100ppm TWA, 125ppm STEL	Titanium dioxide Xylene Benzene, ethyl-
EC	50ppm TWA, 100ppm STEL 100ppm TWA, 200ppm STEL	Xylene Benzene, ethyl-

- Personal protective equipment : General persons are not required, but alcohol allergy persons recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

[] : Information of components.

- Physical state and form : Liquid.
- Color : Orange.
- Odor : Aromatic odor.
- pH : Not applicable.
- Boiling point : Not available. [Benzene, ethyl-/ 136 C]
- Melting point : Not available.
- Flash point : Not available. [Benzene, ethyl-/ 15 C(CC)]
- Autoignition temperature : Not available. [Benzene, ethyl-/ 432 C]
- Explosion limits : Not applicable.
[Lower flammable limit / 0.8% , Upper flammable limit / 6.7% <Benzene, ethyl->]
- Density : about 1.3 / 25 C
- Vapor density (air=1) : Not available. [Benzene, ethyl-/ 3.7]
- Solubility in water : Not available. [Benzene, ethyl-/ 0.015%]
- Evaporation rate : Not available. [Xylene/ 0.6]
- Volatile : 42-45%

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 2119mg/kg-Mouse 3500mg/kg-Rat	Titanium dioxide Xylene Benzene, ethyl-
Inhalation LC50	>6820mg/m ³ -4H-Rat 5000ppm-4H-Rat	Titanium dioxide Xylene
Skin LD50	>10000mg/m ³ -Rabbit >1700mg/kg-Rabbit 17800uL/kg-Rabbit	Titanium dioxide Xylene Benzene, ethyl-

Local effects Irritant:inhalation, skin, eye Xylene / Benzene, ethyl- / Resin

Chronic toxicity and long term toxicity

The liquid defats the skin. The substance may have effects on the central nervous system. Exposure to the substance may enhance hearing damage caused by exposure to noise. Animal tests show that this substance possibly causes toxicity to human reproduction or development. Xylene

Signs and Symptoms of overexposure and aggravated by exposure

Inhalation	irritation,cough irritation,nausea irritation,difficulty breathing	Titanium dioxide / Resin Xylene Benzene, ethyl-
Skin contact	irritation irritation,blisters irritation,absorption	Titanium dioxide / Resin / Coloring agent Xylene Benzene, ethyl-
Eye contact	irritation irritation,burn irritation,tearing irritation, redness	Titanium dioxide / Coloring agent Xylene Benzene, ethyl- Resin
Ingestion	irritation,nausea nausea,vomiting	Xylene Benzene, ethyl-

Specific effects IARC Group 3 Xylene
 IARC Group 2B Benzene, ethyl-

12. ECOLOGICAL INFORMATION

Not available.

13. DISPOSAL CONSIDERATIONS

Waste from residues : Disposal in accordance with all current regulations and standards.
 : Don't dispose in fire.

Contaminated packaging : Not applicable.

14. TRANSPORT INFORMATION

HS Code : 960820

15. REGULATORY INFORMATION

Regulations (Information of components)

Hazardous chemicals (OSHA HCS) : Titanium dioxide / Xylene / Benzene, ethyl-

EU labeling

12.5%<=Xn;R20/21<20%<=Xn;R20/21-38, R10 : Xylene

25%<=Xn;R20, F;R11 : Benzene, ethyl-

CANADA Hazardous Products Act - Ingredient Disclosure List

0.1%over : Benzene, ethyl-

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 : (January 10, 2013). 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: PX-21 Pink [PAINT MARKER]

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
Telex number : 2422337 MBPENC J.

Creation Date : May 14, 2001
Revision Date : January 10, 2013
File No. : 030106A Rev. 2.5.22.08

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Classification in accordance with Directive 67/548/EEC or 1999/45/EC

R11, R20/21

Label elements

Labeling according to Directive 67/548/EEC

Hazard symbols



Highly flammable



Harmful

Risk phrases

R11 : Highly flammable.

R20/21 : Harmful by inhalation and in contact with skin.

Labeling information

The data subject of this section refer to the ink contained in this product.

Other hazards : Not available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

The chemical product is a substance or a mixture : Mixture

Chemical nature: Component parts : Ink

Chemical or generic name	CAS No.	TSCA	EINECSNo.	Concentration range (wt%)
Titanium dioxide	13463-67-7	Registered	2366755	30- 50
Xylenes	1330-20-7	Registered	2155357	30- 50
(Benzene, ethyl-)	100-41-4	Registered	2028494	
Resins	Registered	Registered	Polymer	10- 30
Coloring agent	Registered	Registered	Registered	< 10

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

4. FIRST-AID MEASURES

Inhalation:

Remove from exposure area to fresh air immediately. Give artificial respiration if not breathing. Treat symptomatically and supportively. Get medical attention immediately.

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:

Wash eyes immediately with large amounts of water or normal saline, occasionally lifting upper and lower lids, until no evidence of chemical remains. (at least 15-20 minutes)
Get medical attention immediately.

Ingestion:

Contact local poison control center or physician immediately. Never make an unconscious person vomit or drink fluids. When vomiting occurs, keep head lower than hips to help prevent aspiration. If person is unconscious, turn head to side. Get medical attention immediately, and show the SDS to the physician then.

[Ink quantity of product : about 8.5g]

5. FIRE-FIGHTING MEASURES

Extinguishing media:

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

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

Fire fighting : Move container from fire area if it can be done without risk.
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 : Take/Soak up with absorbent.

: In accordance with national, state and local regulations.

: Don't dispose in fire.

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 children.
: Avoid contact with skin and eyes.

Precautions : Use only in well-ventilated areas.

: Don't breathe the vapor.

Safe handling advice : Not available.

Storage:

- Technical measures : Keep away from oxidizing materials, ignition sources and high temperature.
- Storage condition : Avoid direct sunlight.
: Keep away from heat sources.
: Recommended temperature: 0-30 C.
- Incompatible products : Not available.
- Packaging materials : Not applicable.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

- Engineering measures : Local exhaust ventilation system are not required, but recommended.

Control parameters (Information of components.)

OSHA	100ppm(435mg/m ³) TWA	Xylene / Benzene, ethyl-
ACGIH	10mg/m ³ TWA 100ppm TWA, 150ppm STEL 100ppm TWA, 125ppm STEL	Titanium dioxide Xylene Benzene, ethyl-
EC	50ppm TWA, 100ppm STEL 100ppm TWA, 200ppm STEL	Xylene Benzene, ethyl-

- Personal protective equipment : General persons are not required, but alcohol allergy persons recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

[] : Information of components.

- Physical state and form : Liquid.
- Color : Pink.
- Odor : Aromatic odor.
- pH : Not applicable.
- Boiling point : Not available. [Benzene, ethyl-/ 136 C]
- Melting point : Not available.
- Flash point : Not available. [Benzene, ethyl-/ 15 C(CC)]
- Autoignition temperature : Not available. [Benzene, ethyl-/ 432 C]
- Explosion limits : Not applicable.
[Lower flammable limit / 0.8% , Upper flammable limit / 6.7% <Benzene, ethyl->]
- Density : about 1.3 / 25 C
- Vapor density (air=1) : Not available. [Benzene, ethyl-/ 3.7]
- Solubility in water : Not available. [Benzene, ethyl-/ 0.015%]
- Evaporation rate : Not available. [Xylene/ 0.6]
- Volatile : 42-45%

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 2119mg/kg-Mouse 3500mg/kg-Rat	Titanium dioxide Xylene Benzene, ethyl-
Inhalation LC50	>6820mg/m ³ -4H-Rat 5000ppm-4H-Rat	Titanium dioxide Xylene
Skin LD50	>10000mg/m ³ -Rabbit >1700mg/kg-Rabbit 17800uL/kg-Rabbit	Titanium dioxide Xylene Benzene, ethyl-

Local effects Irritant:inhalation, skin, eye Xylene / Benzene, ethyl- / Resin

Chronic toxicity and long term toxicity

The liquid defats the skin. The substance may have effects on the central nervous system. Exposure to the substance may enhance hearing damage caused by exposure to noise. Animal tests show that this substance possibly causes toxicity to human reproduction or development. Xylene

Signs and Symptoms of overexposure and aggravated by exposure

Inhalation	irritation,cough irritation,nausea irritation,difficulty breathing	Titanium dioxide / Resin Xylene Benzene, ethyl-
Skin contact	irritation irritation,blisters irritation,absorption	Titanium dioxide / Resin / Coloring agent Xylene Benzene, ethyl-
Eye contact	irritation irritation, burn irritation,tearing irritation,redness	Titanium dioxide / Coloring agent Xylene Benzene, ethyl- Resin
Ingestion	irritation,nausea nausea,vomiting	Xylene Benzene, ethyl-

Specific effects IARC Group 3 Xylene
 IARC Group 2B Benzene, ethyl-

12. ECOLOGICAL INFORMATION

Not available.

13. DISPOSAL CONSIDERATIONS

Waste from residues : Disposal in accordance with all current regulations and standards.
 : Don't dispose in fire.
Contaminated packaging : Not applicable.

14. TRANSPORT INFORMATION

HS Code : 960820

15. REGULATORY INFORMATION

Regulations (Information of components)

Hazardous chemicals (OSHA HCS) : Titanium dioxide / Xylene / Benzene, ethyl-

EU labeling

12.5%<=Xn;R20/21<20%<=Xn;R20/21-38, R10 : Xylene

25%<=Xn;R20, F;R11 : Benzene, ethyl-

CANADA Hazardous Products Act - Ingredient Disclosure List

0.1%over : Benzene, ethyl-

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 : (January 10, 2013). 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: PX-21 Light blue [PAINT MARKER]

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
Telex number : 2422337 MBPENC J.

Creation Date : May 14, 2001
Revision Date : January 10, 2013
File No. : 030108A Rev. 2.5.23.08

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Classification in accordance with Directive 67/548/EEC or 1999/45/EC

R11, R20/21

Label elements

Labeling according to Directive 67/548/EEC

Hazard symbols



Highly flammable



Harmful

Risk phrases

R11 : Highly flammable.

R20/21 : Harmful by inhalation and in contact with skin.

Labeling information

The data subject of this section refer to the ink contained in this product.

Other hazards : Not available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

The chemical product is a substance or a mixture : Mixture

Chemical nature: Component parts : Ink

Chemical or generic name	CAS No.	TSCA	EINECSNo.	Concentration range (wt%)
Titanium dioxide	13463-67-7	Registered	2366755	30- 50
Xylenes	1330-20-7	Registered	2155357	30- 50
(Benzene, ethyl-)	100-41-4	Registered	2028494	
Resins	Registered	Registered	Polymer	10- 30
Coloring agents	Registered	Registered	Registered	< 10

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

4. FIRST-AID MEASURES

Inhalation:

Remove from exposure area to fresh air immediately. Give artificial respiration if not breathing. Treat symptomatically and supportively. Get medical attention immediately.

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:

Wash eyes immediately with large amounts of water or normal saline, occasionally lifting upper and lower lids, until no evidence of chemical remains. (at least 15-20 minutes)
Get medical attention immediately.

Ingestion:

Contact local poison control center or physician immediately. Never make an unconscious person vomit or drink fluids. When vomiting occurs, keep head lower than hips to help prevent aspiration. If person is unconscious, turn head to side. Get medical attention immediately, and show the SDS to the physician then.

[Ink quantity of product : about 8.4g]

5. FIRE-FIGHTING MEASURES

Extinguishing media:

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

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

Fire fighting : Move container from fire area if it can be done without risk.
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 : Take/Soak up with absorbent.

: In accordance with national, state and local regulations.

: Don't dispose in fire.

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 children.
: Avoid contact with skin and eyes.

Precautions : Use only in well-ventilated areas.

: Don't breathe the vapor.

Safe handling advice : Not available.

Storage:

- Technical measures : Keep away from oxidizing materials, ignition sources and high temperature.
- Storage condition : Avoid direct sunlight.
: Keep away from heat sources.
: Recommended temperature: 0-30 C.
- Incompatible products : Not available.
- Packaging materials : Not applicable.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

- Engineering measures : Local exhaust ventilation system are not required, but recommended.

Control parameters (Information of components.)

OSHA	100ppm(435mg/m ³) TWA	Xylene / Benzene, ethyl-
ACGIH	10mg/m ³ TWA 100ppm TWA, 150ppm STEL 100ppm TWA, 125ppm STEL	Titanium dioxide Xylene Benzene, ethyl-
EC	50ppm TWA, 100ppm STEL 100ppm TWA, 200ppm STEL	Xylene Benzene, ethyl-

- Personal protective equipment : General persons are not required, but alcohol allergy persons recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

[] : Information of components.

- Physical state and form : Liquid.
- Color : Light blue.
- Odor : Aromatic odor.
- pH : Not applicable.
- Boiling point : Not available. [Benzene, ethyl-/ 136 C]
- Melting point : Not available.
- Flash point : Not available. [Benzene, ethyl-/ 15 C(CC)]
- Autoignition temperature : Not available. [Benzene, ethyl-/ 432 C]
- Explosion limits : Not applicable.
[Lower flammable limit / 0.8% , Upper flammable limit / 6.7% <Benzene, ethyl->]
- Density : about 1.3 / 25 C
- Vapor density (air=1) : Not available. [Benzene, ethyl-/ 3.7]
- Solubility in water : Not available. [Benzene, ethyl-/ 0.015%]
- Evaporation rate : Not available. [Xylene/ 0.6]
- Volatile : 45-48%

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 2119mg/kg-Mouse 3500mg/kg-Rat 525mg/kg-Rat, >5000mg/kg-Rat	Titanium dioxide Xylene Benzene, ethyl- Coloring agent
Inhalation LC50	>6820mg/m ³ -4H-Rat 5000ppm-4H-Rat	Titanium dioxide Xylene
Skin LD50	>10000mg/m ³ -Rabbit >1700mg/kg-Rabbit 17800uL/kg-Rabbit >2000mg/kg	Titanium dioxide Xylene Benzene, ethyl- Coloring agent

Local effects Irritant:inhalation, skin, eye Xylene / Benzene, ethyl- / Resin

Chronic toxicity and long term toxicity

The liquid defats the skin. The substance may have effects on the central nervous system. Exposure to the substance may enhance hearing damage caused by exposure to noise. Animal tests show that this substance possibly causes toxicity to human reproduction or development. Xylene

Signs and Symptoms of overexposure and aggravated by exposure

Inhalation	irritation,cough irritation,nausea irritation,difficulty breathing	Titanium dioxide / Resin Xylene Benzene, ethyl-
Skin contact	irritation irritation,blisters irritation,absorption	Titanium dioxide / Resin / Coloring agent Xylene Benzene, ethyl-
Eye contact	irritation irritation,burn irritation,tearing irritation,redness	Titanium dioxide / Coloring agent Xylene Benzene, ethyl- Resin
Ingestion	irritation,nausea nausea,vomiting	Xylene Benzene, ethyl-

Specific effects IARC Group 3
IARC Group 2B Xylene
Benzene, ethyl-

12. ECOLOGICAL INFORMATION

Not available.

13. DISPOSAL CONSIDERATIONS

Waste from residues : Disposal in accordance with all current regulations and standards.
: Don't dispose in fire.
Contaminated packaging : Not applicable.

14. TRANSPORT INFORMATION

HS Code : 960820

15. REGULATORY INFORMATION

Regulations (Information of components)

Hazardous chemicals (OSHA HCS) : Titanium dioxide / Xylene / Benzene, ethyl-

EU labeling

12.5%<=Xn;R20/21<20%<=Xn;R20/21-38, R10 : Xylene

25%<=Xn;R20, F;R11 : Benzene, ethyl-

CANADA Hazardous Products Act - Ingredient Disclosure List

0.1%over : Benzene, ethyl-

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 : (January 10, 2013). 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: PX-21 Brown [PAINT MARKER]

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
Telex number : 2422337 MBPENC J.

Creation Date : May 14, 2001
Revision Date : January 10, 2013
File No. : 030111A Rev. 2.5.23.08

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Classification in accordance with Directive 67/548/EEC or 1999/45/EC

R11, R20/21

Label elements

Labeling according to Directive 67/548/EEC

Hazard symbols



Highly flammable



Harmful

Risk phrases

R11 : Highly flammable.

R20/21 : Harmful by inhalation and in contact with skin.

Labeling information

The data subject of this section refer to the ink contained in this product.

Other hazards : Not available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

The chemical product is a substance or a mixture : Mixture

Chemical nature: Component parts : Ink

Chemical or generic name	CAS No.	TSCA	EINECSNo.	Concentration range (wt%)
Titanium dioxide	13463-67-7	Registered	2366755	30- 50
Xylenes	1330-20-7	Registered	2155357	30- 50
(Benzene, ethyl-)	100-41-4	Registered	2028494	
Resins	Registered	Registered	Polymer	10- 30
Coloring agents	Registered	Registered	Registered	< 10

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

4. FIRST-AID MEASURES

Inhalation:

Remove from exposure area to fresh air immediately. Give artificial respiration if not breathing. Treat symptomatically and supportively. Get medical attention immediately.

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:

Wash eyes immediately with large amounts of water or normal saline, occasionally lifting upper and lower lids, until no evidence of chemical remains. (at least 15-20 minutes)

Get medical attention immediately.

Ingestion:

Contact local poison control center or physician immediately. Never make an unconscious person vomit or drink fluids. When vomiting occurs, keep head lower than hips to help prevent aspiration. If person is unconscious, turn head to side. Get medical attention immediately, and show the SDS to the physician then.

[Ink quantity of product : about 8.3g]

5. FIRE-FIGHTING MEASURES

Extinguishing media:

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

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

Fire fighting : Move container from fire area if it can be done without risk.
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 : Take/Soak up with absorbent.

: In accordance with national, state and local regulations.

: Don't dispose in fire.

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 children.

: Avoid contact with skin and eyes.

Precautions : Use only in well-ventilated areas.

: Don't breathe the vapor.

Safe handling advice : Not available.

Storage:

- Technical measures : Keep away from oxidizing materials, ignition sources and high temperature.
- Storage condition : Avoid direct sunlight.
: Keep away from heat sources.
: Recommended temperature: 0-30 C.
- Incompatible products : Not available.
- Packaging materials : Not applicable.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

- Engineering measures : Local exhaust ventilation system are not required, but recommended.

Control parameters (Information of components.)

OSHA	100ppm(435mg/m ³) TWA	Xylene / Benzene, ethyl-
ACGIH	10mg/m ³ TWA	Titanium dioxide
	100ppm TWA, 150ppm STEL	Xylene
	100ppm TWA, 125ppm STEL	Benzene, ethyl-
EC	50ppm TWA, 100ppm STEL	Xylene
	100ppm TWA, 200ppm STEL	Benzene, ethyl-

- Personal protective equipment : General persons are not required, but alcohol allergy persons recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

[] : Information of components.

- Physical state and form : Liquid.
- Color : Brown.
- Odor : Aromatic odor.
- pH : Not applicable.
- Boiling point : Not available. [Benzene, ethyl-/ 136 C]
- Melting point : Not available.
- Flash point : Not available. [Benzene, ethyl-/ 15 C(CC)]
- Autoignition temperature : Not available. [Benzene, ethyl-/ 432 C]
- Explosion limits : Not applicable.
[Lower flammable limit / 0.8% , Upper flammable limit / 6.7% <Benzene, ethyl->]
- Density : about 1.3 / 25 C
- Vapor density (air=1) : Not available. [Benzene, ethyl-/ 3.7]
- Solubility in water : Not available. [Benzene, ethyl-/ 0.015%]
- Evaporation rate : Not available. [Xylene/ 0.6]
- Volatile : 44-47%

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 2119mg/kg-Mouse 3500mg/kg-Rat >2000mg/kg	Titanium dioxide Xylene Benzene, ethyl- Coloring agent
Inhalation LC50	>6820mg/m ³ -4H-Rat 5000ppm-4H-Rat	Titanium dioxide Xylene
Skin LD50	>10000mg/m ³ -Rabbit >1700mg/kg-Rabbit 17800uL/kg-Rabbit >2000mg/kg	Titanium dioxide Xylene Benzene, ethyl- Coloring agent

Local effects Irritant;inhalation, skin, eye Xylene / Benzene, ethyl- / Resin

Chronic toxicity and long term toxicity

The liquid defats the skin. The substance may have effects on the central nervous system. Exposure to the substance may enhance hearing damage caused by exposure to noise. Animal tests show that this substance possibly causes toxicity to human reproduction or development. Xylene

Signs and Symptoms of overexposure and aggravated by exposure

Inhalation	irritation,cough irritation,nausea irritation,difficulty breathing	Titanium dioxide / Resin Xylene Benzene, ethyl-
Skin contact	irritation irritation,blisters irritation, absorption	Titanium dioxide / Resin / Coloring agent Xylene Benzene, ethyl-
Eye contact	irritation irritation,burn irritation,tearing irritation,redness	Titanium dioxide / Coloring agent Xylene Benzene, ethyl- Resin
Ingestion	irritation,nausea nausea,vomiting	Xylene Benzene, ethyl-

Specific effects IARC Group 3
IARC Group 2B Xylene
Benzene, ethyl-

12. ECOLOGICAL INFORMATION

Not available.

13. DISPOSAL CONSIDERATIONS

Waste from residues : Disposal in accordance with all current regulations and standards.
: Don't dispose in fire.

Contaminated packaging : Not applicable.

14. TRANSPORT INFORMATION

HS Code : 960820

15. REGULATORY INFORMATION

Regulations (Information of components)

Hazardous chemicals (OSHA HCS) : Titanium dioxide / Xylene / Benzene, ethyl-

EU labeling

12.5%<=Xn;R20/21<20%<=Xn;R20/21-38, R10 : Xylene

25%<=Xn;R20, F;R11 : Benzene, ethyl-

CANADA Hazardous Products Act - Ingredient Disclosure List

0.1%over : Benzene, ethyl-

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 : (January 10, 2013). 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: PX-21 Grey [PAINT MARKER]

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
Telex number : 2422337 MBPENC J.

Creation Date : May 14, 2001
Revision Date : January 10, 2013
File No. : 030112A Rev. 2.5.23.08

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Classification in accordance with Directive 67/548/EEC or 1999/45/EC

R11, R20/21

Label elements

Labeling according to Directive 67/548/EEC

Hazard symbols



Highly flammable



Harmful

Risk phrases

R11 : Highly flammable.

R20/21 : Harmful by inhalation and in contact with skin.

Labeling information

The data subject of this section refer to the ink contained in this product.

Other hazards : Not available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

The chemical product is a substance or a mixture : Mixture

Chemical nature: Component parts : Ink

Chemical or generic name	CAS No.	TSCA	EINECSNo.	Concentration range (wt%)
Titanium dioxide	13463-67-7	Registered	2366755	30- 50
Xylenes	1330-20-7	Registered	2155357	30- 50
(Benzene, ethyl-)	100-41-4	Registered	2028494	
Resins	Registered	Registered	Polymer	10- 30
Coloring agents	Registered	Registered	Registered	< 10

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

4. FIRST-AID MEASURES

Inhalation:

Remove from exposure area to fresh air immediately. Give artificial respiration if not breathing. Treat symptomatically and supportively. Get medical attention immediately.

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:

Wash eyes immediately with large amounts of water or normal saline, occasionally lifting upper and lower lids, until no evidence of chemical remains. (at least 15-20 minutes)
Get medical attention immediately.

Ingestion:

Contact local poison control center or physician immediately. Never make an unconscious person vomit or drink fluids. When vomiting occurs, keep head lower than hips to help prevent aspiration. If person is unconscious, turn head to side. Get medical attention immediately, and show the SDS to the physician then.

[Ink quantity of product : about 8.3g]

5. FIRE-FIGHTING MEASURES

Extinguishing media:

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

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

Fire fighting : Move container from fire area if it can be done without risk.
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 : Take/Soak up with absorbent.

: In accordance with national, state and local regulations.

: Don't dispose in fire.

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 children.

: Avoid contact with skin and eyes.

Precautions : Use only in well-ventilated areas.

: Don't breathe the vapor.

Safe handling advice : Not available.

Storage:

- Technical measures : Keep away from oxidizing materials, ignition sources and high temperature.
- Storage condition : Avoid direct sunlight.
: Keep away from heat sources.
: Recommended temperature: 0-30 C.
- Incompatible products : Not available.
- Packaging materials : Not applicable.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

- Engineering measures : Local exhaust ventilation system are not required, but recommended.

Control parameters (Information of components.)

OSHA	100ppm(435mg/m ³) TWA	Xylene / Benzene, ethyl-
ACGIH	10mg/m ³ TWA 100ppm TWA, 150ppm STEL 100ppm TWA, 125ppm STEL	Titanium dioxide Xylene Benzene, ethyl-
EC	50ppm TWA, 100ppm STEL 100ppm TWA, 200ppm STEL	Xylene Benzene, ethyl-

- Personal protective equipment : General persons are not required, but alcohol allergy persons recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

[] : Information of components.

- Physical state and form : Liquid.
- Color : Grey.
- Odor : Aromatic odor.
- pH : Not applicable.
- Boiling point : Not available. [Benzene, ethyl-/ 136 C]
- Melting point : Not available.
- Flash point : Not available. [Benzene, ethyl-/ 15 C(CC)]
- Autoignition temperature : Not available. [Benzene, ethyl-/ 432 C]
- Explosion limits : Not applicable.
[Lower flammable limit / 0.8% , Upper flammable limit / 6.7% <Benzene, ethyl->]
- Density : about 1.3 / 25 C
- Vapor density (air=1) : Not available. [Benzene, ethyl-/ 3.7]
- Solubility in water : Not available. [Benzene, ethyl-/ 0.015%]
- Evaporation rate : Not available. [Xylene/ 0.6]
- Volatile : 45-48%

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.

14. TRANSPORT INFORMATION

HS Code : 960820

15. REGULATORY INFORMATION

Regulations (Information of components)

Hazardous chemicals (OSHA HCS) : Titanium dioxide / Xylene / Benzene, ethyl-

EU labeling

12.5%<=Xn;R20/21<20%<=Xn;R20/21-38, R10 : Xylene

25%<=Xn;R20, F;R11 : Benzene, ethyl-

CANADA Hazardous Products Act - Ingredient Disclosure List

0.1%over : Benzene, ethyl-

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 : (January 10, 2013). 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: PX-21 White [PAINT MARKER]

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
Telex number : 2422337 MBPENC J.

Creation Date : May 14, 2001
Revision Date : January 10, 2013
File No. : 030101A Rev. 2.5.23.08

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Classification in accordance with Directive 67/548/EEC or 1999/45/EC

R11, R20/21

Label elements

Labeling according to Directive 67/548/EEC

Hazard symbols



Highly flammable



Harmful

Risk phrases

R11 : Highly flammable.

R20/21 : Harmful by inhalation and in contact with skin.

Labeling information

The data subject of this section refer to the ink contained in this product.

Other hazards : Not available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

The chemical product is a substance or a mixture : Mixture

Chemical nature: Component parts : Ink

Chemical or generic name	CAS No.	TSCA	EINECSNo.	Concentration range (wt%)
Titanium dioxide	13463-67-7	Registered	2366755	30- 50
Xylenes	1330-20-7	Registered	2155357	30- 50
(Benzene, ethyl-)	100-41-4	Registered	2028494	
Resins	Registered	Registered	Polymer	10- 30

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

4. FIRST-AID MEASURES

Inhalation:

Remove from exposure area to fresh air immediately. Give artificial respiration if not breathing. Treat symptomatically and supportively. Get medical attention immediately.

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:

Wash eyes immediately with large amounts of water or normal saline, occasionally lifting upper and lower lids, until no evidence of chemical remains. (at least 15-20 minutes)
Get medical attention immediately.

Ingestion:

Contact local poison control center or physician immediately. Never make an unconscious person vomit or drink fluids. When vomiting occurs, keep head lower than hips to help prevent aspiration. If person is unconscious, turn head to side. Get medical attention immediately, and show the SDS to the physician then.

[Ink quantity of product : about 8.5g]

5. FIRE-FIGHTING MEASURES

Extinguishing media:

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

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

Fire fighting : Move container from fire area if it can be done without risk.
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 : Take/Soak up with absorbent.
: In accordance with national, state and local regulations.
: Don't dispose in fire.

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 children.
: Avoid contact with skin and eyes.

Precautions : Use only in well-ventilated areas.

: Don't breathe the vapor.

Safe handling advice : Not available.

Storage:

- Technical measures : Keep away from oxidizing materials, ignition sources and high temperature.
- Storage condition : Avoid direct sunlight.
: Keep away from heat sources.
: Recommended temperature: 0-30 C.
- Incompatible products : Not available.
- Packaging materials : Not applicable.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

- Engineering measures : Local exhaust ventilation system are not required, but recommended.

Control parameters (Information of components.)

OSHA	100ppm(435mg/m ³) TWA	Xylene / Benzene, ethyl-
ACGIH	10mg/m ³ TWA	Titanium dioxide
	100ppm TWA, 150ppm STEL	Xylene
	100ppm TWA, 125ppm STEL	Benzene, ethyl-
EC	50ppm TWA, 100ppm STEL	Xylene
	100ppm TWA, 200ppm STEL	Benzene, ethyl-

- Personal protective equipment : General persons are not required, but alcohol allergy persons recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

[] : Information of components.

- Physical state and form : Liquid.
- Color : White.
- Odor : Aromatic odor.
- pH : Not applicable.
- Boiling point : Not available. [Benzene, ethyl-/ 136 C]
- Melting point : Not available.
- Flash point : Not available. [Benzene, ethyl-/ 15 C(CC)]
- Autoignition temperature : Not available. [Benzene, ethyl-/ 432 C]
- Explosion limits : Not applicable.
[Lower flammable limit / 0.8% , Upper flammable limit / 6.7% <Benzene, ethyl->]
- Density : about 1.3 / 25 C
- Vapor density (air=1) : Not available. [Benzene, ethyl-/ 3.7]
- Solubility in water : Not available. [Benzene, ethyl-/ 0.015%]
- Evaporation rate : Not available. [Xylene/ 0.6]
- Volatile : 43-46%

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 2119mg/kg-Mouse 3500mg/kg-Rat	Titanium dioxide Xylene Benzene, ethyl-
Inhalation LC50	>6820mg/m ³ -4H-Rat 5000ppm-4H-Rat	Titanium dioxide Xylene
Skin LD50	>10000mg/m ³ -Rabbit >1700mg/kg-Rabbit 17800uL/kg-Rabbit	Titanium dioxide Xylene Benzene, ethyl-

Local effects Irritant; inhalation, skin, eye Xylene / Benzene, ethyl- / Resin

Chronic toxicity and long term toxicity

The liquid defats the skin. The substance may have effects on the central nervous system. Exposure to the substance may enhance hearing damage caused by exposure to noise. Animal tests show that this substance possibly causes toxicity to human reproduction or development. Xylene

Signs and Symptoms of overexposure and aggravated by exposure

Inhalation	irritation, cough irritation, nausea irritation, difficulty breathing	Titanium dioxide / Resin Xylene Benzene, ethyl-
Skin contact	irritation irritation, blisters irritation, absorption	Titanium dioxide / Resin Xylene Benzene, ethyl-
Eye contact	irritation irritation, burn irritation, tearing irritation, redness	Titanium dioxide Xylene Benzene, ethyl- Resin
Ingestion	irritation, nausea nausea, vomiting	Xylene Benzene, ethyl-

Specific effects IARC Group 3 Xylene
IARC Group 2B Benzene, ethyl-

12. ECOLOGICAL INFORMATION

Not available.

13. DISPOSAL CONSIDERATIONS

Waste from residues : Disposal in accordance with all current regulations and standards.
: Don't dispose in fire.

Contaminated packaging : Not applicable.

14. TRANSPORT INFORMATION

HS Code : 960820

15. REGULATORY INFORMATION

Regulations (Information of components)

Hazardous chemicals (OSHA HCS) : Titanium dioxide / Xylene / Benzene, ethyl-

EU labeling

12.5%<=Xn;R20/21<20%<=Xn;R20/21-38, R10 : Xylene

25%<=Xn;R20, F;R11 : Benzene, ethyl-

CANADA Hazardous Products Act - Ingredient Disclosure List

0.1%over : Benzene, ethyl-

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 : (January 10, 2013). 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: PX-21 Gold [PAINT MARKER]

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
Telex number : 2422337 MBPENC J.

Creation Date : May 14, 2001
Revision Date : January 10, 2013
File No. : 030114A Rev. 2.5.04.08

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Classification in accordance with Directive 67/548/EEC or 1999/45/EC

R11, R20/21

Label elements

Labeling according to Directive 67/548/EEC

Hazard symbols



Highly flammable



Harmful

Risk phrases

R11 : Highly flammable.

R20/21 : Harmful by inhalation and in contact with skin.

Labeling information

The data subject of this section refer to the ink contained in this product.

Other hazards : Not available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

The chemical product is a substance or a mixture : Mixture

Chemical nature: Component parts : Ink

Chemical or generic name	CAS No.	TSCA	EINECSNo.	Concentration range (wt%)
Xylenes (Benzene, ethyl-)	1330-20-7	Registered	2155357	30- 50
	100-41-4	Registered	2028494	
Bronze powder	7440-66-6	Registered	2311753	10- 30
	7440-50-8	Registered	2311596	
Resin	Registered	Registered	Polymer	10- 30

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

4. FIRST-AID MEASURES

Inhalation:

Remove from exposure area to fresh air immediately. Give artificial respiration if not breathing. Treat symptomatically and supportively. Get medical attention immediately.

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:

Wash eyes immediately with large amounts of water or normal saline, occasionally lifting upper and lower lids, until no evidence of chemical remains. (at least 15-20 minutes)
Get medical attention immediately.

Ingestion:

Contact local poison control center or physician immediately. Never make an unconscious person vomit or drink fluids. When vomiting occurs, keep head lower than hips to help prevent aspiration. If person is unconscious, turn head to side. Get medical attention immediately, and show the SDS to the physician then.

[Ink quantity of product : about 8.1g]

5. FIRE-FIGHTING MEASURES

Extinguishing media:

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

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

Fire fighting : Move container from fire area if it can be done without risk.
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 : Take/Soak up with absorbent.
: In accordance with national, state and local regulations.
: Don't dispose in fire.

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 children.
: Avoid contact with skin and eyes.

Precautions : Use only in well-ventilated areas.
: Don't breathe the vapor.

Safe handling advice : Not available.

Storage:

- Technical measures : Keep away from oxidizing materials, ignition sources and high temperature.
- Storage condition : Avoid direct sunlight.
: Keep away from heat sources.
: Recommended temperature: 0-30 C.
- Incompatible products : Not available.
- Packaging materials : Not applicable.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

- Engineering measures : Local exhaust ventilation system are not required, but recommended.

Control parameters (Information of components.)

OSHA	100ppm(435mg/m ³) TWA	Xylene / Benzene, ethyl-
ACGIH	100ppm TWA, 150ppm STEL	Xylene
	100ppm TWA, 125ppm STEL	Benzene, ethyl-
	10mg/m ³ (Nuisance particulate)	Resin
EC	50ppm TWA, 100ppm STEL	Xylene
	100ppm TWA, 200ppm STEL	Benzene, ethyl-

- Personal protective equipment : General persons are not required, but alcohol allergy persons recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

[] : Information of components.

- Physical state and form : Liquid.
- Color : Gold.
- Odor : Aromatic odor.
- pH : Not applicable.
- Boiling point : Not available. [Benzene, ethyl-/ 136 C]
- Melting point : Not available.
- Flash point : Not available. [Benzene, ethyl-/ 15 C(CC)]
- Autoignition temperature : Not available. [Benzene, ethyl-/ 432 C]
- Explosion limits : Not applicable.
[Lower flammable limit / 0.8% , Upper flammable limit / 6.7% <Benzene, ethyl->]
- Density : about 1.2 / 25 C
- Vapor density (air=1) : Not available. [Benzene, ethyl-/ 3.7]
- Solubility in water : Not available. [Benzene, ethyl-/ 0.015%]
- Evaporation rate : Not available. [Xylene/ 0.6]
- Volatile : 47-50%

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	2119mg/kg-Mouse 3500mg/kg-Rat	Xylene Benzene, ethyl-
Inhalation LC50	5000ppm-4H-Rat	Xylene
Skin LD50	>1700mg/kg-Rabbit 17800uL/kg-Rabbit	Xylene Benzene, ethyl-

Local effects Irritant:inhalation, skin, eye Xylene / Benzene, ethyl-

Chronic toxicity and long term toxicity

The liquid defats the skin. The substance may have effects on the central nervous system. Exposure to the substance may enhance hearing damage caused by exposure to noise. Animal tests show that this substance possibly causes toxicity to human reproduction or development. Xylene

Signs and Symptoms of overexposure and aggravated by exposure

Inhalation	irritation,nausea irritation,difficulty breathing	Xylene Benzene, ethyl-
Skin contact	irritation,blisters irritation,absorption	Xylene Benzene, ethyl-
Eye contact	irritation,burn irritation,tearing	Xylene Benzene, ethyl-
Ingestion	irritation,nausea nausea,vomiting	Xylene Benzene, ethyl-

Specific effects IARC Group 3 Xylene
 IARC Group 2B Benzene, ethyl-

12. ECOLOGICAL INFORMATION

Not available.

13. DISPOSAL CONSIDERATIONS

Waste from residues : Disposal in accordance with all current regulations and standards.
 : Don't dispose in fire.
Contaminated packaging : Not applicable.

14. TRANSPORT INFORMATION

HS Code : 960820

15. REGULATORY INFORMATION

Regulations (Information of components)

Hazardous chemicals (OSHA HCS) : Xylene / Benzene, ethyl-

EU labeling

12.5%<=Xn;R20/21<20%<=Xn;R20/21-38, R10 : Xylene

25%<=Xn;R20, F;R11 : Benzene, ethyl-

CANADA Hazardous Products Act - Ingredient Disclosure List

0.1%over : Benzene, ethyl-

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 : (January 10, 2013). 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: PX-21 Silver [PAINT MARKER]

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
Telex number : 2422337 MBPENC J.

Creation Date : May 14, 2001
Revision Date : January 10, 2013
File No. : 030115A Rev. 2.5.02.08

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Classification in accordance with Directive 67/548/EEC or 1999/45/EC

R11, R20/21

Label elements

Labeling according to Directive 67/548/EEC

Hazard symbols



Highly flammable



Harmful

Risk phrases

R11 : Highly flammable.

R20/21 : Harmful by inhalation and in contact with skin.

Labeling information

The data subject of this section refer to the ink contained in this product.

Other hazards : Not available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

The chemical product is a substance or a mixture : Mixture

Chemical nature: Component parts : Ink

Chemical or generic name	CAS No.	TSCA	EINECSNo.	Concentration range (wt%)
Xylenes	1330-20-7	Registered	2155357	50- 80
(Benzene, ethyl-)	100-41-4	Registered	2028494	
Resin	Registered	Registered	Polymer	10- 30
Aluminum paste	7429-90-5	Registered	2310723	10- 30
Petroleum solvents	Registered	Registered	Registered	< 10

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

4. FIRST-AID MEASURES

Inhalation:

Remove from exposure area to fresh air immediately. Give artificial respiration if not breathing. Treat symptomatically and supportively. Get medical attention immediately.

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:

Wash eyes immediately with large amounts of water or normal saline, occasionally lifting upper and lower lids, until no evidence of chemical remains. (at least 15-20 minutes)
Get medical attention immediately.

Ingestion:

Contact local poison control center or physician immediately. Never make an unconscious person vomit or drink fluids. When vomiting occurs, keep head lower than hips to help prevent aspiration. If person is unconscious, turn head to side. Get medical attention immediately, and show the SDS to the physician then.

[Ink quantity of product : about 8.0g]

5. FIRE-FIGHTING MEASURES

Extinguishing media:

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

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

Fire fighting : Move container from fire area if it can be done without risk.
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 : Take/Soak up with absorbent.

: In accordance with national, state and local regulations.

: Don't dispose in fire.

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 children.

: Avoid contact with skin and eyes.

Precautions : Use only in well-ventilated areas.

: Don't breathe the vapor.

Safe handling advice : Not available.

Storage:

- Technical measures : Keep away from oxidizing materials, ignition sources and high temperature.
- Storage condition : Avoid direct sunlight.
: Keep away from heat sources.
: Recommended temperature: 0-30 C.
- Incompatible products : Not available.
- Packaging materials : Not applicable.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

- Engineering measures : Local exhaust ventilation system are not required, but recommended.

Control parameters (Information of components.)

OSHA	100ppm(435mg/m ³) TWA 15mg/m ³ (total dust), 5mg/m ³ (respirable fraction), 5mg/m ³ (pyro powders) 5mg/m ³	Xylene / Benzene, ethyl- Aluminum paste Petroleum solvent
ACGIH	100ppm TWA, 150ppm STEL 100ppm TWA, 125ppm STEL 10mg/m ³ (Nuisance particulate) 10mg/m ³ TWA(metal particulate), 5mg/m ³ TWA(pyro powders) 5mg/m ³ TWA, 10mg/m ³ STEL	Xylene Benzene, ethyl- Resin Aluminum paste Petroleum solvent
EC	50ppm TWA, 100ppm STEL 100ppm TWA, 200ppm STEL	Xylene Benzene, ethyl-

- Personal protective equipment : General persons are not required, but alcohol allergy persons recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

[] : Information of components.

- Physical state and form : Liquid.
- Color : Silver.
- Odor : Aromatic odor.
- pH : Not applicable.
- Boiling point : Not available. [Benzene, ethyl-/ 136 C]
- Melting point : Not available.
- Flash point : Not available. [Benzene, ethyl-/ 15 C(CC)]
- Autoignition temperature : Not available. [Benzene, ethyl-/ 432 C]
- Explosion limits : Not applicable.
[Lower flammable limit / 0.8% , Upper flammable limit / 6.7% <Benzene, ethyl->]
- Density : about 1.0 / 25 C
- Vapor density (air=1) : Not available. [Benzene, ethyl-/ 3.7]
- Solubility in water : Not available. [Benzene, ethyl-/ 0.015%]
- Evaporation rate : Not available. [Xylene/ 0.6]
- Volatile : 66-69%

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	2119mg/kg-Mouse 3500mg/kg-Rat >5000mg/kg-Rat ≥5000mg/kg-Rat	Xylene Benzene, ethyl- Aluminum paste Petroleum solvent
Inhalation LC50	5000ppm-4H-Rat	Xylene
Skin LD50	>1700mg/kg-Rabbit 17800uL/kg-Rabbit	Xylene Benzene, ethyl-

Local effects	Irritant; inhalation, skin, eye	Xylene / Benzene, ethyl- / Petroleum solvent
	Irritant; inhalation	Aluminum paste

Chronic toxicity and long term toxicity

The liquid defats the skin. The substance may have effects on the central nervous system. Exposure to the substance may enhance hearing damage caused by exposure to noise. Animal tests show that this substance possibly causes toxicity to human reproduction or development.

Signs and Symptoms of overexposure and aggravated by exposure

Inhalation	irritation, nausea irritation, difficulty breathing irritation, cough	Xylene / Petroleum solvent Benzene, ethyl- Aluminum paste
Skin contact	irritation, blisters irritation, absorption irritation, itching irritation, skin disorder	Xylene Benzene, ethyl- Aluminum paste Petroleum solvent
Eye contact	irritation, burn irritation, tearing irritation, eye damage irritation	Xylene Benzene, ethyl- Aluminum paste Petroleum solvent
Ingestion	irritation, nausea nausea, vomiting irritation, digestive disorders	Xylene / Petroleum solvent Benzene, ethyl- Aluminum paste

Specific effects	IARC Group 3 IARC Group 2B	Xylene Benzene, ethyl-
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12. ECOLOGICAL INFORMATION

Not available.

13. DISPOSAL CONSIDERATIONS

Waste from residues : Disposal in accordance with all current regulations and standards.
: Don't dispose in fire.
Contaminated packaging : Not applicable.

14. TRANSPORT INFORMATION

HS Code : 960820

15. REGULATORY INFORMATION

Regulations (Information of components)

Hazardous chemicals (OSHA HCS) : Xylene / Benzene, ethyl- / Aluminum paste /
Petroleum solvent

EU labeling

12.5%<=Xn;R20/21<20%<=Xn;R20/21-38, R10 : Xylene
25%<=Xn;R20, F;R11 : Benzene, ethyl-

CANADA Hazardous Products Act - Ingredient Disclosure List

0.1%over : Benzene, ethyl-
1%over : Aluminum paste / Petroleum solvent

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 : (January 10, 2013). 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.