

Safety data sheet for chemical products

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: SX-210 Black [JETSTREAM]

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 : April 6, 2004
Revision Date : February 24, 2006
File No. : 061238A Rev. 2.5.01.03

2. COMPOSITION/INFORMATION ON INGREDIENTS

The chemical product is a substance or a preparation : Preparation

Chemical nature:

Component parts : Ink

Chemical or generic name	CAS No.	TSCA	EINECSNo.	Concentration range (wt%)
1-Butanol, 3-methoxy-3-methyl-	56539-66-3	Registered	2602524	30- 50
Resins	Registered	Registered	Polymer	10- 30
Coloring agents	Registered	Registered	Registered	10- 30
Carbon Black	1333-86-4	Registered	2156099	< 10
Ethanol, 2-(2-butoxyethoxy)-	112-34-5	Registered	2039616	< 10
Polypropylene glycol	25322-69-4	Registered	5000398	< 10
2-Phenoxyethanol	122-99-6	Registered	2045897	< 10
Additive	Registered	Registered	Polymer	< 10

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

3. HAZARDS IDENTIFICATION

Most important hazards : Not available.

Specific hazards : Information of components.

<Carbon Black>

MAJOR HEALTH HAZARDS: suspect cancer hazard (in animals)

PHYSICAL HAZARDS: Dust/air mixtures may ignite or explode.

4. FIRST-AID MEASURES

Inhalation:

Not applicable.

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

Skin contact:

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

Eye contact:

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

Ingestion:

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

[Ink quantity of refill(SXR-C1) : about 300mg]

5. FIRE-FIGHTING MEASURES

Fire and explosion measures : Slight fire hazard.

Extinguishing media:

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

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

Fire fighting : 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.

7. HANDLING AND STORAGE

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

Keep separated from incompatible substances.

Handling:

Technical measures : Don't swallow ink.

: Recap after use.

: Don't shake.

: Keep out of the reach of children.

: Avoid contact with skin and eyes.

Precautions : Not available.

Safe handling advice : Not available.

Storage:

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

Storage condition : Avoid direct sunlight.

: Do not leave the products in high temperature space.

: Recommended temperature: 0-30 C.

Incompatible products : (Information of components.)

oxidizing materials, organic peroxides 1-Butanol, 3-methoxy-3-methyl-

oxidizing materials Resin / Polypropylene glycol / 2-

strong oxidizers Coloring agent

oxidizing materials, halogens Carbon Black

acids, bases, oxidizing materials Ethanol, 2-(2-butoxyethoxy)-

Packaging materials : Not applicable.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Engineering measures : Not required.

Control parameters (Information of components.)

OSHA	3.5mg/m ³	Carbon Black
ACGIH	10mg/m ³ (Nuisance particulate) 3.5mg/m ³ (total dust) TWA	Resin Carbon Black
EC	3.5mg/m ³	Carbon Black
DFG	100 mg/m ³ MAK(peak limitation category - I, with excursion factor of 1)	Ethanol, 2-(2- butoxyethoxy)-
AIHA	10mg/m ³ TWA (aerosol) 25ppm TWA (skin) [DOW CHEMICAL]	Polypropylene glycol 2-Phenoxyethanol

Personal protective equipment : Not required.

9. PHYSICAL AND CHEMICAL PROPERTIES

[]: Information of components.

Physical state and form : High viscous liquid.
 Colour : Black.
 Odour : None odour.
 pH : Not applicable.
 Boiling point : Not available. [1-Butanol, 3-methoxy-3-methyl-/ 174 C]
 Melting point : <-20 C
 Flash point : Not applicable. [1-Butanol, 3-methoxy-3-methyl-/ 68 C]
 Autoignition temperature : Not applicable. [Polypropylene glycol/ 201 C]
 Explosion limits : Not applicable.
 [Lower flammable limit / 1.2% , Upper flammable limit / 13.1% <1-Butanol, 3-methoxy-3-methyl->]
 Density : about 1.1 / 25 C
 Vapour density (air=1) : Not available. [1-Butanol, 3-methoxy-3-methyl-/ 4.1]
 Solubility in water : Soluble.
 Evaporation rate : Not available.
 Volatile : 55-58%

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 : (Information of components.)

oxidizing materials, organic peroxides	1-Butanol, 3-methoxy-3-methyl-
oxidizing materials	Resin / Polypropylene glycol / 2-Phenoxyethanol
strong oxidizers	Coloring agent
oxidizing materials, halogens	Carbon Black
acids, bases, oxidizing materials	Ethanol, 2-(2-butoxyethoxy)-

Hazardous decomposition products : (Information of components.)

oxides of carbon, water	common decomposition products
toxic and/or hazardous gases, miscellaneous decomposition products.	Resin
oxides of nitrogen.	Coloring agent

11. TOXICOLOGICAL INFORMATION

(Information of components)

Acute toxicity

Ingestion LD50	4300mg/kg-Rat >3000mg/kg-Rat ≥300 - <500 mg/kg-Rat, 3900mg/kg-Rat >8000mg/kg-Rat 2200mg/kg-Rabbit 57000mg/kg-Rat 933mg/kg-Mouse	1-Butanol, 3-methoxy-3-methyl-Resin Coloring agent Carbon Black Ethanol, 2-(2-butoxyethoxy)- Polypropylene glycol 2-Phenoxyethanol
Inhalation LC50	Not available.	
Skin LD50	>2000mg/kg 4120mg/kg-Rat 5000mg/kg-Rabbit	1-Butanol, 3-methoxy-3-methyl- Ethanol, 2-(2-butoxyethoxy)- 2-Phenoxyethanol

Local effects

Irritant;eye Irritant;inhalation, skin Irritant;inhalation, skin, eye Irritant;inhalation, skin, Corrosive;eye	Resin Carbon Black Ethanol, 2-(2-butoxyethoxy)- 2-Phenoxyethanol
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Chronic toxicity and long term toxicity

Respiratory disorders. The liquid defats the skin. The substance may have effects on the blood. The liquid defats the skin. The substance may have effects on the central nervous system, resulting in impaired functions.	Carbon Black Ethanol, 2-(2-butoxyethoxy)- 2-Phenoxyethanol
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Signs and Symptoms of overexposure and aggravated by exposure

Inhalation	irritation irritation,headache irritation,sore throat	Resin / Carbon Black Ethanol, 2-(2-butoxyethoxy)- 2-Phenoxyethanol
Skin contact	inflammation irritation irritation,redness	1-Butanol, 3-methoxy-3-methyl-Resin / Coloring agent / Carbon Black / Polypropylene Ethanol, 2-(2-butoxyethoxy)- / 2-Phenoxyethanol
Eye contact	irritation mechanical irritation,redness irritation,burns	1-Butanol, 3-methoxy-3-methyl- / Resin / Coloring agent / Polypropylene glycol Carbon Black Ethanol, 2-(2-butoxyethoxy)- 2-Phenoxyethanol
Ingestion	nausea,vomiting sore throat,nausea	Ethanol, 2-(2-butoxyethoxy)- / Polypropylene glycol 2-Phenoxyethanol

Specific effects

IARC Group 2B	Carbon Black
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12. ECOLOGICAL INFORMATION

Not available.

13. DISPOSAL CONSIDERATIONS

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

Contaminated packaging : Not applicable.

14. TRANSPORT INFORMATION

HS Code : 960810

15. REGULATORY INFORMATION

Regulations (Information of components)

Hazardous chemicals (OSHA HCS) : Carbon Black

EU labeling

20%<=Xi;R36 : Ethanol, 2-(2-butoxyethoxy)-

25%<=Xn;R22, 20%<=Xi;R36 : 2-Phenoxyethanol

R22 : Harmful if swallowed.

R36 : Irritating to eyes.

CANADA Hazardous Products Act - Ingredient Disclosure List

1%over : Carbon Black / Ethanol, 2-(2-butoxyethoxy)- / 2-Phenoxyethanol

Hazard and safety information

Products are manufactured in accordance with European regulation EN71 part 3

Products are manufactured in accordance with ELV directive of EU.

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 : (February 24, 2006). 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: SX-210 Blue [JETSTREAM]

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 : April 6, 2004
 Revision Date : February 24, 2006
 File No. : 061239A Rev. 2.5.02.03

2. COMPOSITION/INFORMATION ON INGREDIENTS

The chemical product is a substance or a preparation : Preparation

Chemical nature:

Component parts : Ink

Chemical or generic name	CAS No.	TSCA	EINECSNo.	Concentration range (wt%)
1-Butanol, 3-methoxy-3-methyl-	56539-66-3	Registered	2602524	30- 50
Resins	Registered	Registered	Polymer	10- 30
Coloring agents	Registered	Registered	Registered	10- 30
Polypropylene glycol	25322-69-4	Registered	5000398	< 10
2-Phenoxyethanol	122-99-6	Registered	2045897	< 10
Additive	Registered	Registered	Polymer	< 10

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

3. HAZARDS IDENTIFICATION

Most important hazards : Not available.

Specific hazards : Not available.

4. FIRST-AID MEASURES

Inhalation:

Not applicable.

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

Skin contact:

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

Eye contact:

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

Ingestion:

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

[Ink quantity of refill(SXR-C1) : about 300mg]

5. FIRE-FIGHTING MEASURES

Fire and explosion measures : Slight fire hazard.

Extinguishing media:

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

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

Fire fighting : 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.

7. HANDLING AND STORAGE

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

Keep separated from incompatible substances.

Handling:

Technical measures : Don't swallow ink.
: Recap after use.
: Don't shake.
: Keep out of the reach of children.
: Avoid contact with skin and eyes.

Precautions : Not available.

Safe handling advice : Not available.

Storage:

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

Storage condition : Avoid direct sunlight.
: Do not leave the products in high temperature space.
: Recommended temperature: 0-30 C.

Incompatible products : (Information of components.)

oxidizing materials, organic peroxides	1-Butanol, 3-methoxy-3-methyl-
oxidizing materials	Resin / Coloring agent / Polypropylene glycol / 2-Phenoxyethanol

Packaging materials : Not applicable.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Engineering measures : Not required.

Control parameters (Information of components.)

OSHA	Not available.	
ACGIH	10mg/m3(Nuisance particulate)	Resin
EC	Not available.	
AIHA	10mg/m3 TWA (aerosol)	Polypropylene glycol
	25ppm TWA (skin) [DOW CHEMICAL]	2-Phenoxyethanol

Personal protective equipment : Not required.

9. PHYSICAL AND CHEMICAL PROPERTIES

[] : Information of components.

Physical state and form	: High viscous liquid.
Colour	: Blue.
Odour	: None odour.
pH	: Not applicable.
Boiling point	: Not available. [1-Butanol, 3-methoxy-3-methyl-/ 174 C]
Melting point	: <-20 C
Flash point	: Not applicable. [1-Butanol, 3-methoxy-3-methyl-/ 68 C]
Autoignition temperature	: Not applicable. [Polypropylene glycol/ 201 C]
Explosion limits	: Not applicable.
	[Lower flammable limit / 1.2% , Upper flammable limit / 13.1% <1-Butanol, 3-methoxy-3-methyl->]
Density	: about 1.1 / 25 C
Vapour density (air=1)	: Not available. [1-Butanol, 3-methoxy-3-methyl-/ 4.1]
Solubility in water	: Soluble.
Evaporation rate	: Not available.
Volatile	: 63-66%

10. STABILITY AND REACTIVITY

Stability	: Stability.
Hazardous reactions	: Will not occur.
Conditions to avoid	: Avoid heat, flames, sparks and other sources of ignition. Avoid contact with incompatible materials.
Materials to avoid	: (Information of components.)
oxidizing materials, organic peroxides	1-Butanol, 3-methoxy-3-methyl-
oxidizing materials	Resin / Coloring agent / Polypropylene glycol / 2-Phenoxyethanol
Hazardous decomposition products	: (Information of components.)
oxides of carbon, water	common decomposition products
toxic and/or hazardous gases,	Resin
miscellaneous decomposition products.	
oxides of nitrogen, sulfur.	Coloring agent

11. TOXICOLOGICAL INFORMATION

(Information of components)

Acute toxicity		
Ingestion LD50	4300mg/kg-Rat >3000mg/kg-Rat 5000mg/kg-Rat 57000mg/kg-Rat 933mg/kg-Mouse	1-Butanol, 3-methoxy-3-methyl- Resin Coloring agent Polypropylene glycol 2-Phenoxyethanol
Inhalation LC50	Not available.	
Skin LD50	>2000mg/kg 5000mg/kg-Rabbit	1-Butanol, 3-methoxy-3-methyl- 2-Phenoxyethanol
Local effects	Irritant;eye Irritant;inhalation, skin, Corrosive;eye	Resin 2-Phenoxyethanol

Chronic toxicity and long term toxicity

The liquid defats the skin. The substance may have effects on the central nervous system, resulting in impaired functions.

2-Phenoxyethanol

Signs and Symptoms of overexposure and aggravated by exposure

Inhalation	irritation irritation, sore throat	Resin / Coloring agent 2-Phenoxyethanol
Skin contact	inflammation irritation irritation, redness	1-Butanol, 3-methoxy-3-methyl- Resin / Coloring agent / Polypropylene glycol 2-Phenoxyethanol
Eye contact	irritation irritation, burns	1-Butanol, 3-methoxy-3-methyl- / Resin / Coloring agent / Polypropylene glycol 2-Phenoxyethanol
Ingestion	laxative effect, dark-colored nausea, vomiting sore throat, nausea	Coloring agent Polypropylene glycol 2-Phenoxyethanol

Specific effects Not available.

12. ECOLOGICAL INFORMATION

Not available.

13. DISPOSAL CONSIDERATIONS

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

14. TRANSPORT INFORMATION

HS Code : 960810

15. REGULATORY INFORMATION

Regulations (Information of components)

Hazardous chemicals (OSHA HCS) : Not restricted.

EU labeling

25% ≤ Xn; R22, 20% ≤ Xi; R36 : 2-Phenoxyethanol
R22 : Harmful if swallowed.
R36 : Irritating to eyes.

CANADA Hazardous Products Act - Ingredient Disclosure List
1% over : 2-Phenoxyethanol

Hazard and safety information

Products are manufactured in accordance with European regulation EN71 part 3
Products are manufactured in accordance with ELV directive of EU.

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 : (February 24, 2006). 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: SX-210 Red [JETSTREAM]

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 : April 6, 2004
Revision Date : February 24, 2006
File No. : 061240A Rev. 2.5.02.03

2. COMPOSITION/INFORMATION ON INGREDIENTS

The chemical product is a substance or a preparation : Preparation

Chemical nature: Component parts : Ink

Chemical or generic name	CAS No.	TSCA	EINECSNo.	Concentration range (wt%)
1-Butanol, 3-methoxy-3-methyl-	56539-66-3	Registered	2602524	50- 80
Resins	Registered	Registered	Polymer	10- 30
Coloring agents	Registered	Registered	Registered	10- 30
Polypropylene glycol	25322-69-4	Registered	5000398	< 10
Additive	Registered	Registered	Polymer	< 10

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

3. HAZARDS IDENTIFICATION

Most important hazards : Not available.

Specific hazards : Not available.

4. FIRST-AID MEASURES

Inhalation:

Not applicable.

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

Skin contact:

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

Eye contact:

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

Ingestion:

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

[Ink quantity of refill(SXR-C1) : about 300mg]

5. FIRE-FIGHTING MEASURES

Fire and explosion measures : Slight fire hazard.

Extinguishing media:

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

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

Fire fighting : 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.

7. HANDLING AND STORAGE

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

Keep separated from incompatible substances.

Handling:

Technical measures : Don't swallow ink.
: Recap after use.
: Don't shake.
: Keep out of the reach of children.
: Avoid contact with skin and eyes.

Precautions : Not available.

Safe handling advice : Not available.

Storage:

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

Storage condition : Avoid direct sunlight.
: Do not leave the products in high temperature space.
: Recommended temperature: 0-30 C.

Incompatible products : (Information of components.)

oxidizing materials, organic peroxides 1-Butanol, 3-methoxy-3-methyl-
oxidizing materials Resin / Polypropylene glycol

Packaging materials : Not applicable.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Engineering measures : Not required.

Control parameters (Information of components.)

OSHA	Not available.	
ACGIH	10mg/m3(Nuisance particulate)	Resin
EC	Not available.	
AIHA	10mg/m3 TWA (aerosol)	Polypropylene glycol
JAIH	2mg/m3(Respirable fraction), 8mg/m3(Total dust)	Coloring agent

Personal protective equipment : Not required.

9. PHYSICAL AND CHEMICAL PROPERTIES

[]: Information of components.

Physical state and form	: High viscous liquid.
Colour	: Red.
Odour	: None odour.
pH	: Not applicable.
Boiling point	: Not available. [1-Butanol, 3-methoxy-3-methyl-/ 174 C]
Melting point	: <-20 C
Flash point	: Not applicable. [1-Butanol, 3-methoxy-3-methyl-/ 68 C]
Autoignition temperature	: Not applicable. [Polypropylene glycol/ 201 C]
Explosion limits	: Not applicable.
	[Lower flammable limit / 1.2% , Upper flammable limit / 13.1% <1-Butanol, 3-methoxy-3-methyl->]
Density	: about 1.1 / 25 C
Vapour density (air=1)	: Not available. [1-Butanol, 3-methoxy-3-methyl-/ 4.1]
Solubility in water	: Soluble.
Evaporation rate	: Not available.
Volatile	: 59-62%

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	: (Information of components.)
oxidizing materials, organic peroxides	1-Butanol, 3-methoxy-3-methyl-
oxidizing materials	Resin / Polypropylene glycol
Hazardous decomposition products	: (Information of components.)
oxides of carbon, water	common decomposition products
toxic and/or hazardous gases,	Resin
miscellaneous decomposition products.	
oxides of nitrogen.	Coloring agent

11. TOXICOLOGICAL INFORMATION

(Information of components)

Acute toxicity		
Ingestion LD50	4300mg/kg-Rat >3000mg/kg-Rat 2000mg/kg-Rat 57000mg/kg-Rat	1-Butanol, 3-methoxy-3-methyl- Resin Coloring agent Polypropylene glycol
Inhalation LC50	Not available.	
Skin LD50	>2000mg/kg 2000mg/kg-Rat	1-Butanol, 3-methoxy-3-methyl- Coloring agent
Local effects	Irritant;eye	Resin
Chronic toxicity and long term toxicity		Not available.

Signs and Symptoms of overexposure and aggravated by exposure

Inhalation	irritation	Resin
Skin contact	inflammation irritation	1-Butanol, 3-methoxy-3-methyl- Resin / Coloring agent / Polypropylene glycol
Eye contact	irritation	1-Butanol, 3-methoxy-3-methyl- / Resin / Coloring agent / Polypropylene glycol
Ingestion	nausea, vomiting	Polypropylene glycol
Specific effects	Not available.	

12. ECOLOGICAL INFORMATION

Not available.

13. DISPOSAL CONSIDERATIONS

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

14. TRANSPORT INFORMATION

HS Code : 960810

15. REGULATORY INFORMATION

Regulations (Information of components)

Hazardous chemicals (OSHA HCS) : Not restricted.

EU labeling : Not restricted.

CANADA Hazardous Products Act - Ingredient Disclosure List
: Not restricted.

Hazard and safety information

Products are manufactured in accordance with European regulation EN71 part 3
Products are manufactured in accordance with ELV directive of EU.

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 : (February 24, 2006). 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: SX-210 Blue-black [JETSTREAM]

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 : September 8, 2004
 Revision Date : February 24, 2006
 File No. : 061241A Rev. 2.5.01.02

2. COMPOSITION/INFORMATION ON INGREDIENTS

The chemical product is a substance or a preparation : Preparation

Chemical nature:

Component parts : Ink

Chemical or generic name	CAS No.	TSCA	EINECSNo.	Concentration range (wt%)
1-Butanol, 3-methoxy-3-methyl-	56539-66-3	Registered	2602524	50- 80
Resins	Registered	Registered	Polymer	10- 30
Coloring agents	Registered	Registered	Registered	10- 30
Polypropylene glycol	25322-69-4	Registered	5000398	< 10
2-Phenoxyethanol	122-99-6	Registered	2045897	< 10
Additive	Registered	Registered	Polymer	< 10
Carbon Black	1333-86-4	Registered	2156099	< 1

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

3. HAZARDS IDENTIFICATION

Most important hazards : Not available.

Specific hazards : Information of components.

<Carbon Black>

MAJOR HEALTH HAZARDS: suspect cancer hazard (in animals)

PHYSICAL HAZARDS: Dust/air mixtures may ignite or explode.

4. FIRST-AID MEASURES

Inhalation:

Not applicable.

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

Skin contact:

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

Eye contact:

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

Ingestion:

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

[Ink quantity of refill(SXR-C1) : about 300mg]

5. FIRE-FIGHTING MEASURES

Fire and explosion measures : Slight fire hazard.

Extinguishing media:

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

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

Fire fighting : 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.

7. HANDLING AND STORAGE

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

Keep separated from incompatible substances.

Handling:

Technical measures : Don't swallow ink.
: Recap after use.
: Don't shake.
: Keep out of the reach of children.
: Avoid contact with skin and eyes.

Precautions : Not available.

Safe handling advice : Not available.

Storage:

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

Storage condition : Avoid direct sunlight.
: Do not leave the products in high temperature space.
: Recommended temperature: 0-30 C.

Incompatible products : (Information of components.)

oxidizing materials, organic peroxides	1-Butanol, 3-methoxy-3-methyl-
oxidizing materials	Resin / Coloring agent / Polypropylene glycol /
	2-Phenoxyethanol
oxidizing materials, halogens	Carbon Black

Packaging materials : Not applicable.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Engineering measures : Not required.

Control parameters (Information of components.)

OSHA	3.5mg/m ³	Carbon Black
ACGIH	10mg/m ³ (Nuisance particulate)	Resin
	3.5mg/m ³ (total dust) TWA	Carbon Black
EC	3.5mg/m ³	Carbon Black
AIHA	10mg/m ³ TWA (aerosol)	Polypropylene glycol
	25ppm TWA (skin) [DOW CHEMICAL]	2-Phenoxyethanol

Personal protective equipment : Not required.

9. PHYSICAL AND CHEMICAL PROPERTIES

[] : Information of components.

Physical state and form : High viscous liquid.

Colour : Blue-black.

Odour : None odour.

pH : Not applicable.

Boiling point : Not available. [1-Butanol, 3-methoxy-3-methyl-/ 174 C]

Melting point : <-20 C

Flash point : Not applicable. [1-Butanol, 3-methoxy-3-methyl-/ 68 C]

Autoignition temperature : Not applicable. [Polypropylene glycol/ 201 C]

Explosion limits : Not applicable.

[Lower flammable limit / 1.2% , Upper flammable limit / 13.1% <1-Butanol, 3-methoxy-3-methyl->]

Density : about 1.1 / 25 C

Vapour density (air=1) : Not available. [1-Butanol, 3-methoxy-3-methyl-/ 4.1]

Solubility in water : Soluble.

Evaporation rate : Not available.

Volatile : 61-64%

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 : (Information of components.)

oxidizing materials, organic peroxides	1-Butanol, 3-methoxy-3-methyl-
oxidizing materials	Resin / Coloring agent / Polypropylene glycol / 2-Phenoxyethanol
oxidizing materials, halogens	Carbon Black

Hazardous decomposition products : (Information of components.)

oxides of carbon, water	common decomposition products
toxic and/or hazardous gases, miscellaneous	Resin
oxides of nitrogen, sulfur.	Coloring agent

11. TOXICOLOGICAL INFORMATION

(Information of components)

Acute toxicity

Ingestion LD50	4300mg/kg-Rat >3000mg/kg-Rat 3900mg/kg-Rat 57000mg/kg-Rat 933mg/kg-Mouse >8000mg/kg-Rat	1-Butanol, 3-methoxy-3-methyl-Resin Coloring agent Polypropylene glycol 2-Phenoxyethanol Carbon Black
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Inhalation LC50	Not available.	
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Skin LD50	>2000mg/kg 5000mg/kg-Rabbit	1-Butanol, 3-methoxy-3-methyl- 2-Phenoxyethanol
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Local effects

Irritant;eye Irritant;inhalation, skin, Corrosive;eye Irritant;inhalation, skin	Resin 2-Phenoxyethanol Carbon Black
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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, resulting in impaired functions. Respiratory disorders.	2-Phenoxyethanol Carbon Black
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Signs and Symptos of overexposure and aggravated by exposure

Inhalation	irritation irritation,sore throat	Resin / Coloring agent / Carbon Black 2-Phenoxyethanol
Skin contact	inflammation irritation irritation,redness	1-Butanol, 3-methoxy-3-methyl- Resin / Coloring agent / 2-Phenoxyethanol
Eye contact	irritation irritation,burns mechanical	1-Butanol, 3-methoxy-3-methyl- / Resin / Coloring agent / 2-Phenoxyethanol Carbon Black
Ingestion	laxative effect,dark-colored nausea,vomiting sore throat,nausea	Coloring agent Polypropylene glycol 2-Phenoxyethanol

Specific effects	IARC Group 2B	Carbon Black
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12. ECOLOGICAL INFORMATION

Not available.

13. DISPOSAL CONSIDERATIONS

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

14. TRANSPORT INFORMATION

HS Code : 960810

15. REGULATORY INFORMATION

Regulations (Information of components)

Hazardous chemicals (OSHA HCS) : Carbon Black

EU labeling

25%≤Xn;R22, 20%≤Xi;R36 : 2-Phenoxyethanol

R22 : Harmful if swallowed.

R36 : Irritating to eyes.

CANADA Hazardous Products Act - Ingredient Disclosure List

1%over : 2-Phenoxyethanol / Carbon Black

Hazard and safety information

Products are manufactured in accordance with European regulation EN71 part 3

Products are manufactured in accordance with ELV directive of EU.

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 : (February 24, 2006). 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.