

Safety data sheet for chemical products

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: PNA-125 [uni SUPER INK 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 : November 21, 2008
 Revision Date :
 File No. : 026209A Rev. 2.5.01.01

2. COMPOSITION/INFORMATION ON INGREDIENTS

The chemical product is a substance or a preparation : Preparation

Chemical or generic name	CAS No.	TSCA	EINECSNo.	Concentration range (wt%)
2-Propanol, 1-methoxy	107-98-2	Registered	2035391	50- 80
Ethyl alcohol	64-17-5	Registered	2005786	10- 30
Resins	Registered	Registered Not listed	Polymer	10- 30
Carbon Black	1333-86-4	Registered	2156099	10- 30
Additive	Registered	Registered	Registered	< 10

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

3. HAZARDS IDENTIFICATION

Most important hazards : Not available.
 Specific hazards : Information of components.

<2-Propanol, 1-methoxy>

MAJOR HEALTH HAZARDS: respiratory tract irritation, skin irritation, eye irritation

PHYSICAL HAZARDS: Flammable liquid and vapor. Vapor may cause flash fire. May form peroxides during prolonged storage.

<Ethyl alcohol>

MAJOR HEALTH HAZARDS: respiratory tract irritation, skin irritation, eye irritation, liver damage, central nervous system depression

PHYSICAL HAZARDS: Flammable liquid and vapor. Vapor may cause flash fire.

<Carbon Black>

MAJOR HEALTH HAZARDS: suspect cancer hazard (in animals)

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

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:

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

Ingestion:

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

[Ink quantity of product : about 1.2g]

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. |

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 | : Ventilate the room it case of using it.
: 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 : (Information of components.)
- | | |
|---------------------------------------------------------|--------------------------------|
| oxidizing materials | 2-Propanol, 1-methoxy- / Resin |
| halo carbons, metals, metal salts, oxidizing materials, | Ethyl alcohol |
| halogens, peroxides, acids, metal oxides, bases, | |
| combustible materials | |
| strong oxidizers, bromates, nitrates | Carbon black |
- 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	1000ppm(1900mg/m ³) TWA 3.5mg/m ³ TWA	Ethyl alcohol Carbon Black
ACGIH	100ppm TWA, 150ppm STEL 1000ppm TWA 3.5mg/m ³ TWA	2-Propanol, 1-methoxy- Ethyl alcohol Carbon Black
EC	100ppm, 375mg/m ³ 1000ppm 3.5mg/m ³ TWA	2-Propanol, 1-methoxy- Ethyl alcohol Carbon Black

- 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 : Low viscous liquid.
- Colour : Black.
- Odour : Faint ethereal odour.
- pH : Not applicable.
- Boiling point : Not available. [Ethyl alcohol/ 78 C]
- Melting point : <-10 C
- Flash point : Not available. [Ethyl alcohol/ 12.2 C(CC)]
- Autoignition temperature : Not available. [2-Propanol, 1-methoxy-/ 270 C]
- Explosion limits : Not applicable.
[Lower flammable limit / 3.28% , Upper flammable limit / 19% <Ethyl alcohol>]
- Density : about 1.0 / 25 C
- Vapour density (air=1) : Not available. [Ethyl alcohol/ 1.59]
- Solubility in water : Not available. [Ethyl alcohol/ Soluble.]
- Evaporation rate : Not available. [2-Propanol, 1-methoxy-/ 0.7]
- 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	: (Information of components.)
oxidizing materials	2-Propanol, 1-methoxy- / Resin
halo carbons, metals, metal salts, oxidizing materials,	Ethyl alcohol
halogens, peroxides, acids, metal oxides, bases,	
combustible materials	
strong oxidizers, bromates, nitrates	Carbon Black
Hazardous decomposition products	: (Information of components.)
oxides of carbon, water	common decomposition products
oxides of sulfur.	Carbon Black
toxic and/or hazardous gases.	Resin

11. TOXICOLOGICAL INFORMATION

(Information of components)

Acute toxicity

Ingestion LD50	5000mg/kg-Dog, 11700mg/kg-Mouse 3450mg/kg-Mouse >=2000mg/kg-Mouse >=8000mg/kg-Rat	2-Propanol, 1-methoxy- Ethyl alcohol Resin Carbon Black
Inhalation LC50	10000ppm-5H-Rat 20000ppm-10H-Rat	2-Propanol, 1-methoxy- Ethyl alcohol
Skin LD50	13000mg/kg-Rabbit >3000mg/kg-Rabbit	2-Propanol, 1-methoxy- Carbon Black

Local effects	Irritant:inhalation, skin, eye	2-Propanol, 1-methoxy- / Ethyl alcohol
	Irritant:inhalation, skin	Carbon Black

Chronic toxicity and long term toxicity

Not available.

Signs and Symptos of overexposure and aggravated by exposure

Inhalation	irritation,nausea irritation,cough irritation	2-Propanol, 1-methoxy- Ethyl alcohol Carbon Black
Skin contact	irritation,dry irritation	2-Propanol, 1-methoxy- / Ethyl alcohol Carbon Black / Resin
Eye contact	irritation,tearing irritation,redness mechanical irritation, discoloration of lids	2-Propanol, 1-methoxy- Ethyl alcohol Carbon Black

	irritation	Additive
Ingestion	difficulty breathing, nausea rash, vomiting	2-Propanol, 1-methoxy- Ethyl alcohol
Specific effects	IARC Group 1 (Alcohol beverages) IARC Group 2B	Ethyl alcohol Carbon Black

12. ECOLOGICAL INFORMATION

Not available.

13. DISPOSAL CONSIDERATIONS

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

Contaminated packaging : Not applicable.

14. TRANSPORT INFORMATION

HS Code : 960820

15. REGULATORY INFORMATION

Regulations (Information of components)

Hazardous chemicals (OSHA HCS)

: 2-Propanol, 1-methoxy- / Ethyl alcohol / Carbon Black

EU labeling

R10 (Flammable.) : 2-Propanol, 1-methoxy-

F+R11 (Highly flammable.) : Ethyl alcohol

CANADA Hazardous Products Act - Ingredient Disclosure List

1%over : 2-Propanol, 1-methoxy- / Carbon Black

0.1%over : Ethyl alcohol

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 : (November 21, 2008). 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.