

Ingestion:

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

[Ink quantity of refill(SNP-10) : about 230mg]

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.

: 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.)

acids, metals, oxidizing materials, Benzyl alcohol

combustible materials, metal salts

oxidizing materials Coloring agent / 2-Phenoxyethanol

oxidizing materials, reducing agents Resin

metals, oxidizing materials Oleic acid

halogens, acids, metals, metal salts, Additive

oxidizing materials, combustible materials

Packaging materials : Not applicable.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Engineering measures : Not required.

Control parameters (Information of components.)

OSHA	5mg/m ³ TWA(respirable dust fraction), 6mg/m ³ OSHA TWA (<1% crystalline silica)	Oleic acid Additive
ACGIH	10mg/m ³ (Nuisance particulate) 10mg/m ³ TWA 10mg/m ³ TWA(total particulate)<1%	Resin Oleic acid Additive
EC	Not available.	
JAIH	2mg/m ³ (respirable fraction), 8mg/m ³ (total dust)	Coloring agent
AIHA	10ppm recommended TWA 25ppm TWA(DOW CHEMICAL)(skin)	Benzyl alcohol 2-Phenoxyethanol

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. [Benzyl alcohol/ 205 C]
Melting point	: <-20 C
Flash point	: Not available. [Benzyl alcohol/ 93 C]
Autoignition temperature	: Not available. [Oleic acid/ 363 C]
Explosion limits	: Not applicable. [Lower flammable limit / 1.3% , Upper flammable limit / 13% <Benzyl alcohol>]
Density	: 1.1±0.05 / 25 C
Vapour density (air=1)	: Not available. [Benzyl alcohol/ 3.7]
Solubility in water	: Not available. [Benzyl alcohol/ 3.5% @20• }]
Evaporation rate	: Not available.
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 : (Information of components.)

acids, metals, oxidizing materials, combustible materials, metal salts	Benzyl alcohol
oxidizing materials	Coloring agent / 2-Phenoxyethanol
oxidizing materials, reducing agents	Resin
metals, oxidizing materials	Oleic acid
halogens, acids, metals, metal salts, oxidizing materials, combustible materials	Additive

Hazardous decomposition products	: (Information of components.)
oxides of carbon, water	common decomposition products
oxides of ,nitrogen, hydrogen chloride gas and other potentiality toxic fumes.	Coloring agent
oxides of nitrogen, hazardous gases, miscellaneous decomposition products.	Resin
miscellaneous decomposition products.	Oleic acid
crystalline silica.	Additive

11.TOXICOLOGICAL INFORMATION

(Information of components)

Acute toxicity

Ingestion LD50	100mg/kg-wild bird, 1230mg/kg-Rat • 2000mg/kg-Rat 933mg/kg-Mouse >3000mg/kg-Rat 25000mg/kg-Rat 1850mg/kg-Rat	Benzyl alcohol Coloring agent 2-Phenoxyethanol Resin Oleic acid Additive
Inhalation LC50	1000ppm-8H-Rat • 2250mg/kg-Rat	Benzyl alcohol Coloring agent
Skin LD50	2000mg/kg-Rabbit • 2000mg/kg-Rat 5000mg/kg-Rabbit	Benzyl alcohol Coloring agent 2-Phenoxyethanol

Local effects

Irritant:skin, eye, inhalation	Benzyl alcohol
Irritant:inhalation, skin	2-Phenoxyethanol
Corrosive:eye	
Irritant:eye	Resin

Chronic toxicity and long term toxicity

Repeated or prolonged contact may cause skin sensitization.	Benzyl alcohol
The liquid defats the skin. The substance may have effects on the central nervous system, resulting in impaired functions.	2-Phenoxyethanol

Signs and Symptos of overexposure and aggravated by exposure

Inhalation	irritation,nausea irritation,sore throat irritation,pneumonitis difficulty breathing, interfere with respiratory irritation	Benzyl alcohol 2-Phenoxyethanol Resin Oleic acid Additive
Skin contact	irritation,redness irritation irritation,sensitization	Benzyl alcohol / 2-Phenoxyethanol Coloring agent / Oleic acid / Additive Resin
Eye contact	irritation,redness irritation irritation,burns	Benzyl alcohol Coloring agent / Resin / Oleic acid / Additive 2-Phenoxyethanol
Ingestion	nausea,headache sore throat,nausea diarrhea,pneumonitis irritation,nausea	Benzyl alcohol 2-Phenoxyethanol Resin Oleic acid

Specific effects

IARC Group 3	Resin / Additive
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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) : Not restricted.

EU labeling

25%≤Xn;R20/22 : Benzyl alcohol

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

R22 : Harmful if swallowed.

R20/22 : Harmful by inhalation and if swallowed.

R36 : Irritating to eyes.

CANADA Hazardous Products Act - Ingredient Disclosure List

1%over : Benzyl alcohol / 2-Phenoxyethanol / Oleic acid

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 : (March 2, 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.