Safety data sheet for chemical products

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: UB-155 Blue (uni-ball micro DELUXE)

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

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2. CONPOSION/INFORMATION ON INGREDENTS

The chemical product is a substance or a preparation:

Preparation

Chemical nature:

<Component parts> <Chemical or generic name> <CAS No.> <Concentration range (wt%)> Ink Water 7732-18-5 54-57 Ethylene glycol 107-21-1 31-34 Pigment Blue 7-10 Registered Resin 1 Registered 1-4 Resin 2 Registered < 1

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

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 unlikery at room temperature.)

Skin contact:

Wash skin with soap or mild detergent and large amount of water until no evidence of chemical remain (at least 15-20 minutes). Get medical attention, if needed.

Eve 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, if necessary.

Ingestion:

If swallowed, seek medical adivice, and show the MSDS to the physician then. [Ink quanity of product: about 1.75g]

5. FIRE-FIGHTING MEASURES

Fire and explosion measures : Slight fire hazard.

Exitinguishing media:

Suitable : alcohol resistant foam, carbon dioxide, regular dry chemical,

water, alcohol resistant foam

Large fires : Use alcohol-resistant foam or flood with fine water spray.

Fire fighting : The Product is no flammable.

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

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Personal precautions : Not available

Environmental precautions : Do not wash away into shower or water way.

Methods for cleaning up : Wipe off by dry cloth and wash with water.

: In accordance with national, state and local regulations.

7. HANDLING AND STORAGE

Store and handle in accordance with all current regulations and standards. Keep separated from incompatible substances.

Handling:

Technical measures : Don't swallow ink.

Recap after use.Don't shake.

Keep out of the reach of children.Avoid contact with skin and eyes.

Precautions : Not available Safe handling advice : Not available

Storge:

Technical measures : Keep away from oxidizing materiaks, ignition sources

and high temperature.

Stroage condition : Avoid direct sunlight.

: Do not leave the products in high temperature space

: Recommended temperature : 0 - 3 0 °C.

Incompatible products : (Information of components.)

strong oxidizers; phosphorus(V) sulfide; sodium hydroxide; chromium trioxide; dimethyl terephthalate + titanium butoxide; potassium permanganate; silvered copper wire; sodium peroxide; perchloric acid; strong bases; chlorosulfonic acid; oleum <Ethylene glycol>

oxidizing materials, strong oxidizers <Pigment Blue>

oxidizing materials;strong oxidizers <Resin 1>

Packaging materials : Not applicable.

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Engineering measures : Not required

Control parameters (Information of components.)

OSHA : 5mg/m3(Respirable fraction), 15mg/m3(Total dust) < Pigment Blue>

: 50ppm(125mg/m3)ceiling <Ethylene glycol>

ACGIH : 10mg/m3 (total dust) < Pigment Blue>

: 100mg/m3 ceiling (particulate) < Ethylene glycol>

DFG : 26mg/m3 (10ml/m3) DFG MAK 1 times/shift <Ethylene glycol>

UK : 10mg/m3 TWA(particulate), 60mg/m3 TWA(vapour),

125mg/m3 STEL(vapour) < Ethylene glycol>

EC : 20ppm, 52mg/m3(8 hours), 40ppm, 104mg/m3(short-term) < Ethylene glycol>

Personal protective equipment : Not required

9. PHYSICAL AND CHEMICAL PROPERTIES

[]: Information of components.

Physical state and form : Low viscous liquid.

Colour : Blue.

Odour : None odour. pH : 8.7±0.7

Boiling point : Not available. [Ethylene glycol / 197°C]

Melting point : < ·10℃

Flashpoint : Not available. [Ethylene glycol / 111°C]
Autoignition temperature : Not available. [Ethylene glycol / 398°C]

Explosion limits (vol %) : Not applicable.

[Lower flammable limit / 3.2, Upper flammable limit / 15.3 < Ethylene glycol>]

Vapour density (air=1) : Not available. [Ethylene glycol / 2.14]

Density : 1.1±0.1
Solubulity in water : Soluble.
Evaporation rate : Not available.

Volatile (%) : 87-90%

10. STABILITY AND REACTIVITY

Stability : Stability.

Hazardous reactions : Will not occur.

Conditions to avoid : May burn dose not ignite ready. Avoid heat, flames, sparks

and other sources of ignition. Avoid contact with incompatible materials

Materials to avoid : (Information of components.)

strong oxidizers; phosphorus(V) sulfide; sodium hydroxide; chromium trioxide; dimethyl terephthalate + titanium butoxide; potassium permanganate; silvered copper wire; sodium peroxide; perchloric acid; strong bases; chlorosulfonic acid; oleum <Ethylene glycol>

oxidizing materials, strong oxidizers <Pigment Blue> oxidizing materials; strong oxidizers <Resin 1>

Hazardous decomposition products : (Information of components.)

oxides of carbon, water. < common decomposition products.>

oxides of nitrogen. <Pigment Blue>

11.TOXICOLOGICAL INFORMATION

(Information of components)

Acute toxicity

Ingestion LD50 : >5000mg/kg-Rat < Pigment Blue>

 $\geq 5000 \text{mg/kg-Rat} < \text{Resin 1} > 1$

: 1650mg/kg-Cat, 7500mg/kg-Mouse < Ethylene glycol>

Inhalation LC50 : 10876mg/kg-Rat < Ethylene glycol> Skin LD50 : 9530uL/kg-Rabbit < Ethylene glycol>

Local effects : Irritation; Inhalation, Skin, eye < Ethylene glycol>

Chronic toxicity and long term toxicity : Central nervous system depressant. < Ethylene glycol>

Signs and Symptos of overexposure and aggravated by exposure

Inhalation : irritation <Resin 1>

: irritation, headache <Ethylene glycol>

: irritation, irritation of mucous membrance <Pigment Blue>

Skin contact : irritation <Pigment Blue, Resin 1>

: irritation, redness < Ethylene glycol>

Eye contact : irritation <Resin 1>

: mechanical irritation <Pigment Blue>: irritation, redness <Ethylene glycol>

Ingestion : nausea, vomiting < Ethylene 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

International regulations : Not restricted

UN classification number : Not applicable

15. REGULATORY INFORMATION

Regulations (Information of components)

Hazardous chemicals (OSHA HCS) < Ethylene glycol>

EU rabeling: 25%≦Xn;R22(R22: Harmful if swallowed.) <Ethylene glycol>

CANADA Hazardous Products Act - Ingredient Disclosure List

: 1% over <Ethylene glycol>

Hazard and safety information

Products are manufactured in accordance with European regulation EN71 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: (APRIL 19, 2001). 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.