1. Identification of the substance/preparation and of the company/undertaking

1.1 Identification of the substance or preparation:

Product name: INK-0503
Synonyms: High-speed waterbased disperse yellow dye ink

1.2 Use of the substance/preparation: waterbased disperse dye ink for digital printers.

1.3 Company/undertaking identification:
Mutoh Europe NV
Archimedesstraat 13
B-8400 Oostende
Tel: +32 (0) 59 56 14 00
Fax: +32 (0) 59 81 71 17
e-mail address: msds@mutoh.eu (contact: E. Baert)

1.4 Emergency telephone: + 32 (0) 14 58 45 45 (24h/24h)
Information Centre on Dangerous Goods (BIG)
Technische Schoolstraat 43 A,
B-2440 Geel

1.5 Local importer:

2. Hazards identification


3. Composition/information on ingredients

Chemical nature: digital printing ink

Hazardous components:

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>EEC-No.</th>
<th>Symbol(s)</th>
<th>R-phrase(s)</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Naphthalene Sulfonate</td>
<td>9084-06-4</td>
<td>Xi</td>
<td>R36/37/38</td>
<td>&gt;= 1 - &lt; 3</td>
<td></td>
</tr>
</tbody>
</table>

4. First-aid measures

General advice:
When symptoms persist or in all cases of doubt seek medical advice. Never give anything by mouth to an unconscious person.

4.1 After inhalation: Remove person to ventilated fresh air. With respiratory problems consult a doctor/medical service.

4.2 After skin contact: Take off all contaminated clothing immediately. Rinse with water. Do not use solvent or thinners. Consult a physician if irritation occurs.

4.3 After eye contact: Immediately flush with room temperature, low pressure and clean water for at least 15 minutes. Remove contact lenses. Seek medical attention if eye irritation occurs.

4.4 After ingestion: Rinse mouth with water. Never induce vomiting. Seek medical attention if you feel unwell.
5. Fire-fighting measures

5.1 Extinguishing media: Water spray, Polyvalent foam, BC powder or carbon dioxide.
5.2 Unsuitable extinguishing media: do not use water jet.
5.3 Special exposure hazards: As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion (see section 10). Exposure to decomposition products may be a hazard to health. Cool closed containers exposed to fire with water spray. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
5.4 Instructions: Keep containers and surroundings cool with water spray.
5.5 Special protective equipment for fire fighters: Heat/fire exposure: self-contained breathing apparatus.

6. Accidental release measures

6.1 Personal precautions: Remove the person of the leeward. Ventilate sufficiently during clean-up in case it happens inside a house. Wear protective clothing, gloves and safety goggles. Wash thoroughly with soap and water after clean-up. Refer to protective measures listed in sections 7 and 8. Material can create slippery conditions.
6.2 Methods for cleaning up or taking up: Clean with detergents. Avoid solvents. Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).
6.3 Environmental precautions: Try to prevent the material from entering drains or water courses. If the product contaminates rivers and lakes or drains inform respective authorities.

7. Handling and storage

7.1 Handling: Avoid exceeding of the given occupational exposure limits (see section 8). Use only in area provided with appropriate exhaust ventilation. Avoid contact with skin, eyes and clothing. Smoking, eating and drinking should be prohibited in the application area. Do not drink ink. Do not dismantle cartridge. Make sure cartridge is dry before insertion into printer housing. Avoid inhalation of vapour or mist. For personal protection see section 8. Thoroughly mix before using. After using, store in a well-sealed container.
7.2 Storage: Observe label precautions. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store in accordance with the particular national regulations. Store between 5°C and 35°C in a dry, well ventilated place away from source of heat, ignition and direct sunlight. No smoking. Electrical installations / working materials must comply with the technological safety standards.
Advice on common storage: Keep away from oxidizing agents and strongly acid or alkaline materials.
7.3 Specific use: No specified.

8. Exposure controls/personal protection

8.1 Exposure limit values: No data available.
8.2 Exposure controls:
8.2.1 Occupational exposure controls:
Engineering controls: Provide adequate ventilation.
Personal protective equipment:
Respiratory protection: Not required under suitable use as setting the cartridge on the printer; however, self-contained breathing apparatus or organic canister mask is recommended in air > exposure limit.
Hand protection: For prolonged or repeated contact use protective gloves, wearing gloves are recommended when emptying the waste bottle. Barrier creams may help to protect the exposed areas of skin, they should however not be applied once exposure has occurred. Skin should be washed after contact. Wash your hands and put on barrier creams.
Safety Data Sheet

Based on regulation (EC) no. 1907/2006 (REACH) Article 31 Annex II
Reviewed on 21.03.2008

INK-0503

Eye protection: Chemical resistant goggles must be worn
Skin protection: Skin should be washed after contact. Personnel should wear protective clothing.

8.2.2 Environmental exposure control: See 6.2 and 13

9. Physical and chemical properties

9.1 General Information:
   Appearance (at 20°C): Liquid
   Odour: Product specific
   Colour: Yellow

9.2 Important health, safety and environmental information:
   pH value at 20°C: no data available
   boiling point / range: no data available
   Flash point: > 100°C
   Explosive properties: no data available
   Oxidizing properties: no data available
   Vapour pressure (at 20°C): no data available
   Vapour pressure (at 50°C): no data available
   Relative density: Approx. 1.04 g/cm³ (ISO 2811-3)
   Water solubility: Complete
   Solubility in other: No data available
   Relative vapour density: No data available
   Viscosity: <= 60s; Transverse section: 6mm; Method: 2431 '84 (ISO6)
   Partition coefficient n-octanol/water: No data available
   Evaporation rate ratio to butyl acetate: No data available
   ratio to ether: No data available

9.3 Other information:
   Melting point/range: no data available
   Auto-ignition point: no data available
   Saturation concentration: no data available
   Specific conductivity: no data available
   Solids by weight: 34%

10. Stability and reactivity

10.1 Conditions to avoid: high and freezing temperature
10.2 Materials to avoid: oxidizes and explosives
10.3 Hazardous decomposition products: none
10.4 Stability: stable under normal temperature
10.5 Hazardous polymerization: no data available

11. Toxicological information

Acute inhalation toxicity:
Inhalation of airborne droplets may cause irritation of the respiratory tract.
Skin irritation:
Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in desiccation of the skin. The product may be absorbed through the skin.
Note:
The concentration of each substance should be borne in mind in assessing the toxicological effects deriving from the preparation.

12. Ecological information

12.1 Exotoxicity: no data available
12.2 Mobility: no data available
12.3 Persistence and degradability: no data available
12.4 Bioaccumulative potential: no data available
12.5 Results of PBT assessment: no data available
12.6 Other adverse effects: no data available.

13. Disposal considerations

Disposal should be in accordance with federal, state and local requirements. Must not be disposed together with household garbage. Do not allow product to reach sewage system.

14. Transport information

not restricted for any mode of international transport

15. Regulatory information

Hazardous components which must be listed on the label: Sodium Naphthalene Sulfonate (irritating to eyes, respiratory system and skin).

Not a hazardous substance or preparation according to EC-directives 67/548/EEC or 1999/45/EC

16. Other information

Information on intended use: This product is of industrial quality and unless otherwise specified or agreed intended exclusively for industrial use. This includes the mentioned and recommended usage. Any other intended applications should be discussed with the manufacturer. In particular this concerns the application for products that are the object of special standards and regulations.

The data contained in the safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. The data do not describe the product’s properties (product specification). Neither should any agreed property nor the suitability of the product for any specific purpose be deduced from the data contained in the safety data sheet. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.