

MSDS \#:

## < Carcinogen >

No component of this ink is listed as a human carcinogen or a potential carcinogen in IARC Monographs, NTP, OSHA regulations or Annex I to Directive 67/548/EEC.

## SECTION 3 HAZARDS IDENTIFICATION

## EU Classification:

Not classified as dangerous.

## Emergency Overview:

Ink tank containing magenta liquid ink with slight odor.

## Potential Health Effects and Symptoms:

## Inhalation:

No adverse effects are expected under intended use.
Over exposure to vapor or mist may cause respiratory tract irritation, cough, dizziness, drowsiness, headache and nausea.

## Ingestion:

May cause abdominal pain, diarrhea, dizziness, drowsiness, dullness, headache, nausea and vomiting.
Eye:
May cause minimal irritation. (See SECTION 11)
Skin:
May cause mild irritation and no sensitization. (See SECTION 11)

## Chronic Effects:

Not identified
Medical Conditions Generally known to be Aggravated by Exposure:
Not identified

## SECTION 4 FIRST AID MEASURES

## First Aid Measures:

## Inhalation:

If symptoms are experienced, move victim to fresh air and obtain medical advice.

## Ingestion:

Rinse mouth. Give one or two glasses of water.
If irritation or discomfort occurs, obtain medical advice immediately.
Eye:
Immediately flush with lukewarm, gently flowing water for 5 minutes or until the chemical is removed.
If irritation persists, obtain medical advice immediately.

## Skin:

Wash with water and soap or mild detergent.
If irritation persists, obtain medical advice.

## Note to Physicians:

None

## SECTION 5 FIRE FIGHTING MEASURES

## Fire Fighting Measures:

Extinguishing Media:
$\mathrm{CO}_{2}$, water, foam or dry chemicals
Unsuitable Extinguishing Media: None
Special Fire Fighting Procedures: None

## Unusual Fire and Explosion Hazards:

None
Fire and Explosive Properties (See also Section 9):
Hazardous Combustion Products: $\mathrm{CO}, \mathrm{CO}_{2}$, NOx and SOx
Other Properties:
None

## SECTION 6 ACCIDENTAL RELEASE MEASURES

## Personal Precautions:

Avoid contact with skin, eyes and clothing.

## Environmental Precautions:

Do not release to sewer, surface water or ground water.

## Method for Cleaning Up:

Wipe off with wet cloth or paper.

## SECTION 7 HANDLING AND STORAGE

## Handling:

Use with adequate ventilation.
Avoid contact with skin, eyes and clothing.
In case of contact, wash out the contaminated area immediately.

## Storage:

Keep in a cool and dry place.
Protect from sunlight.
Keep out of the reach of children.
Specific Uses:
Ink for Ink Jet Printer.
For more information, please refer to the instruction of this product.

## SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

## Exposure Guidelines:

Not established for this ink. (See also SECTION 2)
Engineering Controls:
Use adequate ventilation.

| Personal Protection Equipment(s): |  |
| :--- | :--- |
| Respiratory Protection: | $\square$ Required |
|  | $\boxed{\text { Not Required }}$ |
| Eye/Face Protection: | $\square$ Required |
|  | $\boxed{\text { Not Required }}$ |
| Skin Protection: | $\square$ Required |
|  | $\boxed{\text { Not Required }}$ |

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

| Appearance: | Magenta liquid |
| :---: | :---: |
| Odor: | Slight odor |
| pH: | 8-9 |
| Boiling Point/Range( ${ }^{\circ} \mathrm{C}$ ): | Not available |
| Melting Point/Range( ${ }^{( } \mathbf{C}$ ): | Not available |
| Decomposition Temperature( $\left.{ }^{( } \mathrm{C}\right)$ : | Not available |
| Flash Point ( ${ }^{\mathbf{C}}$ ) : | Estimate: None |
| Flammable (Explosive) Limits: | Not available |
| Autoignition Temperature( ${ }^{\circ} \mathrm{C}$ ): | Not available |
| Flammability: | Neither flammable nor combustible. |
| Explosive Properties: | Estimate: None |
| Oxidizing Properties: | Estimate: None |
| Vapor Pressure : | Not available |
| Vapor Density : | Not available |
| Density / Specific Gravity: | 1.0-1.1 |
| Water Solubility : | Miscible |
| Fat Solubility : | Not available |
| Partition Coefficient (n-Octanol/Water) | Not available |
| Percent Volatile (\%): | 60-80 |
| Evaporation Rate: | Not available |
| Viscosity (mPa s): | 1-5 |
| SECTION 10 STABILITY AND R | EACTIVITY |
| Stability: | Stable <br> Unstable |
| Conditions to Avoid: | None |
| Materials to Avoid: | Acids, bases, oxidizing materials and reducing agents |
| Hazardous Decomposition Products: | $\mathrm{CO}, \mathrm{CO}_{2}$, NOx and SOx |
| Hazardous Polymerization: | May Occur区 Will Not Occur |
| Conditions to Avoid: | None |

## SECTION 11 TOXICOLOGICAL INFORMATION

## Acute Toxicity:

## Inhalation:

Not available

## Ingestion:

Not available
Eye:
[Data of similar composition ink]
Minimal irritant (rabbit) OECD Guidelines No. 405 (2002), 2004/73/EC Method B5
Skin:
[Data of similar composition ink]
Mild irritant (rabbit)
OECD Guidelines No. 404 (2002) , 2004/73/EC Method B4

## Sensitization:

[Data of similar composition ink]
Non-sensitizer (mouse)
OECD Guidelines No. 429 (2002) , 2004/73/EC Method B42

## Mutagenicity:

Ames test: Negative (S. typhimurium \& E. Coli)

## Reproductive Toxicity:

Not available
Carcinogenicity:
Not available
Others:
Not available


## SECTION 15 REGULATORY INFORMATION <br> < EU Information > <br> Information on the Label:

Symbol \& Indication: Not required
R-Phrase:
Not required
S-Phrase:
Not required
Dangerous Component(s):
Not required
Special Precautions under 1999/45/EC Annex V:
Not required
Specific Provisions in Relation to Protection of Man or the Environment:
76/769/EEC: Not regulated
(EC)2037/2000: Not regulated
(EC)304/2003: Not regulated
Others: None

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## < USA Information >

Information on the Label under FHSA:
Signal Word: Not required

## Hazard warning:

Not required
Safety Advice:
Not required
Hazardous Component(s):
Not required

## SARA Title III §313:

Chemical Name
Weight \%
"Ethylene glycol" (107-21-1) 5-10
California Proposition 65:
Chemical Name Weight \%
None
< Canada Information >
WHMIS Controlled Product: Not applicable (Manufactured article)
< Australia Information >
Statement of Hazardous Nature: Not classified as hazardous according to criteria of NOHSC.

## SECTION 16 OTHER INFORMATION

<R phrase list>
R22: Harmful if swallowed.
R41: Risk of serious damage to eyes.
<Revised information from the previous version>
Section 15

## Literature Reference:

- U.S. Department of Labor, 29CFR Part 1910
- U.S. Environmental Protection Agency, 40CFR Part 372
- U.S. Consumer Product Safety Commission, 16CFR Part 1500
- ACGIH, Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices
- U.S. Department of Health and Human Services National Toxicology Program, Annual Report on Carcinogens
- World Health Organization International Agency for Research on Cancer, IARC Monographs on the Evaluation on the Carcinogenic Risk of Chemicals to Humans
- DFG, List of MAK and BAT Values
- EU Directive 76/769/EEC, 67/548/EEC, 1999/45/EC
- EU Regulation (EC)2037/2000, (EC)304/2003
- Canada Workplace Hazardous Materials Information System
- Australia National Occupational Health and Safety Commission's Approved Criteria for Classifying Hazardous Substances [NOHSC:1008]


## Abbreviations:

EU: European Union.
OSHA PEL: PEL(Permissible Exposure Limit) under Occupational Safety and Health Administration (USA).
ACGIH TLV: TLV(Threshold Limit Value) under American Conference of Governmental Industrial Hygienists.
EU ILV: Indicative Limit Values for Occupational Exposure under EU Directive 91/322/EEC, 2000/39/EC and 2006/15/EC
DFG MAK: MAK(Maximale Arbeitsplatz-Konzentration) under Deutsche Forschungsgemeinschaft.
TWA: Time Weighted Average.
STEL: Short Term Exposure Limit.
IARC: International Agency for Research on Cancer.
NTP: National Toxicology Program (USA).
OSHA HCS: Occupational Safety and Health Act, Hazard Communication Standard (USA).
FHSA: Federal Hazardous Substances Act (USA)
WHMIS: Workplace Hazardous Materials Information System.
NOHSC: National Occupational Health and Safety Commission.

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