

## MATERIAL SAFETY DATA SHEET

### SECTION I - SUBSTANCE IDENTITY AND COMPANY CONTACT INFORMATION

Product name: Ink JP-R76  
Manufacturer/distributor: Hitachi America, Ltd.  
50 Prospect Avenue, Tarrytown NY 10591  
Tel 800-448-2244 Fax 914-631-3672  
Emergency phone: CHEMTREC: USA 800-424-9300, Outside USA 703-527-3887

### SECTION II - IDENTIFICATION

**Product Name** JP-R76  
**Product Use** Ink Jet Printers  
**Description** Dark liquid with solvent odor

### HAZARDOUS MATERIAL IDENTIFICATION SYSTEM (HMIS)

**HAZARD RATINGS:** 0 Minimal 1 Slight 2 Moderate 3 Serious 4 Extreme B Hand & Eye Protection

**HEALTH 1 FLAMMABILITY 3 REACTIVITY 0 PERSONAL PROTECTION B**

**NOTICE:** These ratings are for general rapid interpretation. The end-user is responsible for determining the proper protective procedures.

### SECTION III - HAZARDOUS INGREDIENTS

| <b>Ingredient</b>   | <b>CAS#</b> | <b>%</b> | <b>TLV*</b> | <b>PEL*</b> | <b>LD<sub>50</sub>**<br/>(g/kg)</b> | <b>LC<sub>50</sub>**<br/>(g/m<sup>3</sup> per 8hr)</b> |
|---------------------|-------------|----------|-------------|-------------|-------------------------------------|--|
| Methyl Ethyl Ketone | 78-93-3     | 60-100   | 200         | 200         | 2.7                                 | 23.5 g/m <sup>3</sup> / 8hr                            |
| Methanol            | 67-56-1     | 10-30    | 200         | 200         | 5.6                                 | 64,000ppm/<br>4hr                                      |
| Isopropanol         | 67-63-0     | 1-5      | 400         | 400         | 5.04                                | 12,000ppm/<br>8hr                                      |

### SECTION IV - PHYSICAL DATA

**Boiling Range** 70 to 80° C  
**Melting Range** -76 to -86° C  
**Freezing Range** -76 to -86° C  
**Vapor Pressure** ~ 90mm of Hg @ 20° C  
**Vapor Density (Air=1)** Greater than air  
**Solubility In Water** Miscible  
**Solubility In Organic Solvents** Miscible  
**Specific Gravity (Water=1)** 0.874  
**Percent Volatile By Volume (%)** 70.7%  
**Evaporation Rate (N-Butyl Acetate=1)** ~ 4

|                        |                               |
|------------------------|-------------------------------|
| pH in concentrate      | Not Applicable                |
| pH in dilution as used | Not Applicable                |
| Appearance And Odor    | Dark liquid with solvent odor |
| Odor Threshold         | Not Available                 |

## SECTION V - FIRE AND EXPLOSION HAZARD

|   |                                 |
|---|---------------------------------|
| Flash Point (Tcc)                               | -5° C                           |
| Auto Ignition Temperature                       | > 475° C                        |
| Upper Flammable Limit (%By Vol.)                | ~ 20                            |
| Lower Flammable Limit (%By Vol.)                | 1.8                             |
| Hazardous Combustion Products                   | Carbon Monoxide, Carbon Dioxide |
| Extinguishing Media                             | Regular foam or dry chemical    |
| Explosion Data (Sensitive To Mechanical Impact) | No                              |
| Explosion Data (Sensitive To Static Discharge)  | Yes                             |

**FIRE FIGHTING PROCEDURES:** Wear self-contained breathing apparatus with full facepiece operated in the positive pressure demand mode.

## SECTION VI - REACTIVE DATA

|                                  |                                 |
|----------------------------------|---------------------------------|
| Condition Of Instability         | None Known                      |
| Incompatibility                  | Strong oxidizing agents         |
| Conditions Of Reactivity         | Not applicable                  |
| Hazardous Decomposition Products | Carbon Monoxide, Carbon Dioxide |

## SECTION VII - TOXICOLOGICAL PROPERTIES (HEALTH HAZARD)

**ROUTES OF ENTRY:** Skin contact, skin absorption, ingestion, inhalation, and eyes

### EFFECT OF ACUTE EXPOSURE:

|                   |  |
|-------------------|--|
| <b>Eyes</b>       | May cause extreme eye irritation. Symptoms may include burning, tearing, redness, swelling and eye damage.   |
| <b>Skin</b>       | Exposure may cause skin irritation. Prolonged or repeated exposure may dry the skin. Symptoms may include redness, burning, drying, cracking, and skin damage.   |
| <b>Breathing</b>  | Excessive inhalation of vapors can cause nasal and respiratory irritation. Central nervous system effects include dizziness, weakness, fatigue, nausea, headache, possible unconsciousness and even death. Inhalation of material into the lungs can cause chemical pneumonitis, which can be fatal. |
| <b>Swallowing</b> | Can cause gastrointestinal irritation, nausea, vomiting, diarrhea, blindness and death.  |

|                                    |                 |
|------------------------------------|-----------------|
| Exposure Limits                    | See section III |
| Sensitization To Product           | Not Available   |
| Carcinogenicity                    | Not Available   |
| Reproductive Toxicity              | Not Available   |
| Teratogenicity                     | Experimental    |
| Mutagenicity                       | Not Available   |
| Toxicological Synergistic Products | None known      |

### EFFECTS OF CHRONIC EXPOSURE:

**Methyl Ethyl Ketone** - Minor embryotoxic/fetotoxic effects have been observed in laboratory rats exposed to methyl ethyl ketone by inhalation at levels greater than 1000 ppm (5 times the OSHA-PEL/TWA) for most of the gestation period. Methyl ethyl ketone may potentiate (shorten the time of onset) peripheral neuropathy, but methyl ethyl ketone, by itself, has not been shown to cause peripheral neuropathy.

**Methanol** - Poisoning may occur from ingestion. Other symptoms of over-exposure may be headaches, acidosis, convulsions, mydriasis, circulatory collapse, respiratory failure and death.

**Isopropanol** - Ingestion or inhalation of large quantities of vapor may cause flushing, headache, dizziness, mental depression, nausea, vomiting, narcosis, anesthesia, coma and death.

## SECTION VIII - PREVENTATIVE MEASURES

### PERSONAL PROTECTION:

|                                   |   |
|-----------------------------------|---|
| <b>Respiratory protection</b>     | If workplace exposure limit(s) of product or any other component is exceeded, a NIOSH/OSHA approved respirator is advised. (See your safety equipment supplier for specific details.) |
| <b>Ventilation</b>                | Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below PEL/ TLV.   |
| <b>Protective gloves</b>          | Wear chemical resistant gloves. (Consult your safety equipment supplier.)   |
| <b>Eye protection</b>             | Wear chemical splash goggles in compliance with OSHA regulations. However, OSHA regulations also permit other types of safety glasses.  |
| <b>Other protective equipment</b> | Wear impervious clothing and boots to prevent prolonged exposure.   |

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:** Keep away all sources of ignition from spill. If spill is indoors, ventilate areas of spill and soak up the spill with absorbent material. Do not let spilled or leaking material enter watercourse.

**DISPOSAL METHOD:** Absorb in vermiculite, floor absorbent or other absorbent material and dispose in licensed facility. Observe all federal, state and local regulations.

**HANDLING AND STORAGE:** Protect from freezing. Overheating may cause container to rupture. Covered storage is preferable.

SPECIAL SHIPPING INFORMATION: SEE SECTION X

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| <b>SECTION IX - FIRST AID MEASURES</b> |
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|                                |  |
|--------------------------------|--|
| <b>Oral Ingestion</b>          | Seek immediate medical attention.  |
| <b>Eye Contact</b>             | Flush with water for 15 minutes and seek medical attention.  |
| <b>Skin Contact</b>            | Wash with soap and water. Wash contaminated clothing before reuse.   |
| <b>Skin Absorption</b>         | If skin irritation persists, seek medical attention.   |
| <b>Inhalation</b>              | Remove to fresh air, give artificial respiration and seek medical attention.   |
| <b>Effects Of Overexposure</b> | May cause headaches if inhaled. Seek medical attention. If swallowed, can cause drunken-type behavior followed by severe systemic illness. |

## SECTION X - TRANSPORTATION

DOT / TDG Proper Shipping Name UN1210 Printing Ink  
DOT / TDG Hazard Class 3  
DOT / TDG Label Flammable Liquid

## SECTION XI - DISCLAIMER

Every effort has been made to ensure that the information in this MSDS is accurate, and as complete as reasonably possible and of course all data herein are given in good faith. However, all information is furnished without warranty of any kind, and InkJet, Inc., expressly negates any warranty of accuracy, expressed or implied; and InkJet, Inc. assumes no responsibility for personal injury or damage to property to customers, vendors, or third parties if any information herein proves to be incorrect in any respect. Purchasers are encouraged to make independent determination of suitability and completeness of information from all sources to assure proper use and compatibility of product.

\*NIOSH Publication #94-116 \*\*Sax's Dangerous Properties of Industrial Mtls. 10th Ed.