

THIS MATERIAL SAFETY DATA SHEET CONFORMS TO THE REQUIREMENTS OF ANSI Z400.1.  
THIS MSDS COMPLIES WITH 29 CFR 1910.1200 (OSHA HAZARD COMMUNICATION STANDARD).  
IMPORTANT: READ THIS MSDS BEFORE HANDLING OR DISPOSING OF THIS PRODUCT.

#### SECTION I – PRODUCT & COMPANY IDENTIFICATION

**MANUFACTURER / DISTRIBUTOR** Hitachi America, Ltd  
50 Prospect Avenue  
Tarrytown, NY 10591

**PRODUCT NAME** JP-K83 Ink

**MATERIAL USES** Industrial coding applications; Ink Jet Printers

**PRODUCT CODE** X (22, 45, 53, 83) 1276

**NON-EMERGENCY PHONE** 914-524-6685

**EMERGENCY PHONE** CHEMTREC (800) 424-9300

#### SECTION II – COMPOSITION / INFORMATION ON INGREDIENTS

INGREDIENT	CAS#	PERCENT RANGE (%)
Methyl Ethyl Ketone	78-93-3	30 - 60
Methanol	67-56-1	15 - 40
Glycol Ether PM	107-98-2	3 - 7
Methyl-n-2-pyrrolidone	872-50-4	1 - 5

#### SECTION III - HAZARDS IDENTIFICATION

##### HAZARDOUS MATERIAL IDENTIFICATION SYSTEM (HMIS)

HEALTH	1	FLAMMABILITY	3	REACTIVITY	0	PERSONAL PROTECTION	B
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**NOTICE:** THESE RATINGS ARE FOR GENERAL RAPID INTERPRETATION. THE END-USER IS RESPONSIBLE FOR DETERMINING THE PROPER PROTECTIVE PROCEDURES.

**Warning! Flammable Liquid and Vapor.** Skin, Eye and Mucous Membrane Irritant. Do not use near fire or flame. May be fatal or cause blindness if swallowed. Avoid contact with skin, eyes and mucous membranes. If skin contact occurs, wash skin with mild soap and water. If splashed in eyes, flush with water. If inhaled, remove to fresh air. In medical emergency contact Poison Control Center ([USA 800.222.1222](tel:8002221222)). Read MSDS before using.

##### EMERGENCY OVERVIEW

##### EXPOSURE EFFECTS AND RELATED SYMPTOMS

**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.

**GLYCOL ETHER PM** Ingestion may cause headache, weakness, uncoordination, nausea, vomiting, diarrhea, dizziness and drowsiness. Inhalation may cause irritation of the respiratory tract.

**METHYL-N-2-PYRROLIDONE** Judged to be embryotoxic in rats and mice by oral and interperitoneal routes at concentrations near the LD<sub>50</sub>.

##### RISK STATEMENTS

R11 Highly Flammable  
R23/24/25 Toxic by inhalation, in contact with skin and if swallowed  
R36 Irritating to eyes, respiratory system and skin  
R66 Inhalation of vapors can provoke sleepiness and dizziness

##### SAFETY STATEMENTS

S2 Keep away from children.  
S7 Keep container tightly closed  
S16 Keep away from sources of ignition - No Smoking!  
S25 Avoid contact with eyes  
S36/37 Wear suitable protective clothing and gloves  
S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible)



F - Highly Flammable



T - Toxic

## SECTION IV - FIRST AID MEASURES

<b>ORAL INGESTION</b>	Do not induce vomiting unless directed to do so by medical personnel. 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. Seek immediate medical attention.
<b>INHALATION</b>	Remove to fresh air, if not breathing, give artificial respiration and seek medical attention.

## SECTION V - FIREFIGHTING MEASURES

<b>EXTINGUISHING MEDIA</b>	Alcohol Resistant foam or dry chemical
<b>HAZARDOUS COMBUSTION PRODUCTS</b>	Carbon Monoxide, Carbon Dioxide
<b>FIRE FIGHTING PROCEDURES</b>	Wear self-contained breathing apparatus with full facepiece operated in the positive pressure demand mode.

## SECTION VI - ACCIDENTAL RELEASE MEASURES

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.

## SECTION VII - HANDLING AND STORAGE

<b>HANDLING</b>	Avoid contact with eyes. Wash hands thoroughly with soap and water after handling. Utilize proper grounding with containers of material.
<b>STORAGE</b>	Protect from freezing. Overheating may cause container to rupture. Covered storage in a cool, dry place out of direct sunlight is preferable. Keep container tightly sealed until ready for use. Store away from ignition sources.

## SECTION VIII - EXPOSURE CONTROLS / 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.

### OCCUPATIONAL EXPOSURE LIMITS:

INGREDIENT	ACGIH TLV*	OSHA PEL*
<b>Methyl Ethyl Ketone</b>	200	200
<b>Methanol</b>	200	200
<b>Glycol Ether PM</b>	100	100
<b>Methyl-n-2-pyrrolidone</b>	Not Established	Not Established

## SECTION IX - PHYSICAL & CHEMICAL PROPERTIES

<b>PHYSICAL STATE</b>	Liquid
<b>COLOR</b>	Dark
<b>ODOR</b>	Solvent odor
<b>BOILING RANGE</b>	65 to 80° C
<b>MELTING RANGE</b>	- 86 to - 72° C
<b>SPECIFIC GRAVITY (WATER=1)</b>	0.806
<b>DENSITY (lbs / gal)</b>	6.72
<b>EVAPORATION RATE (N-BUTYL ACETATE=1)</b>	~ 3.8
<b>PERCENT VOLATILE BY VOLUME (%)</b>	78%
<b>VAPOR PRESSURE</b>	~ 84 mm of Hg @ 20° C
<b>VAPOR DENSITY (AIR=1)</b>	Greater than air
<b>FLASH POINT (TCC)</b>	- 2° C
<b>AUTO IGNITION TEMPERATURE</b>	~ 470° C
<b>UPPER FLAMMABLE LIMIT (%BY VOL.)</b>	36
<b>LOWER FLAMMABLE LIMIT (%BY VOL.)</b>	1.8
<b>SOLUBILITY IN WATER</b>	Miscible
<b>SOLUBILITY IN ORGANIC SOLVENTS</b>	Miscible
<b>pH</b>	Not Applicable

## SECTION X - STABILITY & REACTIVITY

CONDITION OF INSTABILITY	None Known
CONDITIONS OF REACTIVITY	Not applicable
INCOMPATIBILITY	Strong oxidizing agents
HAZARDOUS DECOMPOSITION PRODUCTS	Carbon Monoxide, Carbon Dioxide
EXPLOSION DATA (SENSITIVE TO MECHANICAL IMPACT)	No
EXPLOSION DATA (SENSITIVE TO STATIC DISCHARGE)	Yes

## SECTION XI - TOXICOLOGICAL INFORMATION

INGREDIENT	TOXICOLOGICAL INFORMATION **
Methyl Ethyl Ketone	LD <sub>50</sub> Oral (rat) - 2737 mg / kg LC <sub>50</sub> Inhalation (rat) - 23,500 mg / m <sup>3</sup> / 8 hr LD <sub>50</sub> Intraperitoneal (rat) - 607 mg / kg LD <sub>50</sub> Skin (rabbit) - 6480 mg / kg LD <sub>Lo</sub> Intraperitoneal (guinea pig) - 2 g / kg
Methanol	LD <sub>50</sub> Oral (rat) - 5628 mg / kg LC <sub>50</sub> Inhalation (rat) - 64,000 ppm / 4 hr LD <sub>50</sub> Intraperitoneal (rat) - 7529 mg / kg LD <sub>50</sub> Intravenous (rat) - 2131 mg / kg
Glycol Ether PM	LD <sub>50</sub> Oral (rat) - 5660 mg / kg LC <sub>Lo</sub> Inhalation (rat) - 7000 ppm / 4 hr LD <sub>50</sub> Intraperitoneal (rat) - 3720 mg / kg LD <sub>50</sub> Subcutaneous (rat) - 7800 mg / kg LD <sub>50</sub> Intravenous (rat) - 4200 mg / kg
Methyl-n-2-pyrrolidone	LD <sub>50</sub> Oral (rat) - 3914 mg / kg LD <sub>50</sub> Intraperitoneal (rat) 2472 mg / kg LD <sub>50</sub> Intravenous (rat) 81 mg / kg LD <sub>50</sub> Skin (rabbit) - 8000 mg / kg

## SECTION XII - ECOLOGICAL INFORMATION

ECOTOXICITY	Not Available
PERSISTENCE / DEGRADABILITY	Not Available
HEAVY METALS	Concentration of lead, mercury, cadmium and hexavalent chromium [Cr(VI)] < 100 ppm No other ecological information is available for this product.

## SECTION XIII - DISPOSAL CONSIDERATIONS

Absorb in vermiculite, floor absorbent or other non-combustible absorbent material and dispose in licensed facility. Observe all federal, state and local regulations.

## SECTION XIV - TRANSPORT INFORMATION

DOT / TDG UN NUMBER & PROPER SHIPPING NAME	UN1210 PRINTING INK
DOT / TDG HAZARD CLASS	3
DOT / TDG LABEL	FLAMMABLE LIQUID
PACKING GROUP	II
EMERGENCY RESPONSE GUIDEBOOK NUMBER	129

## SECTION XV - REGULATORY INFORMATION

<b>TSCA</b>	All chemicals used are listed on the TSCA Inventory.
<b>CERCLA</b>	The following product(s) is (are) listed by CERCLA: <b>Methyl Ethyl Ketone (30 - 60%)</b> <b>Methanol (15 - 40%)</b>
<b>SARA 313</b>	The following product(s) is (are) listed on SARA 313: <b>Methyl Ethyl Ketone (30 - 60%)</b> <b>Methanol (15 - 40%)</b> <b>Methyl-N-2-Pyrrolidone (1 - 5%)</b>
<b>California Prop 65</b>	This product contains the following ingredients that the State of California has found to cause cancer, birth defects, or other reproductive harm, which requires a warning under the statute: <b>Toluene (<math>\leq 0.00002\%</math>)</b>
<b>International Regulations</b>	The components of this product are listed on the chemical inventories of the following countries: <b>Australia, Canada, Europe (EINECS), Japan, Korea, United Kingdom</b>

## SECTION XVI - OTHER INFORMATION

<b>ISSUE DATE</b>	April 2007
<b>REVISION NUMBER</b>	1
<b>SUPERCEDES</b>	n/a
<b>PREPARED BY</b>	Chris Jordan, Product Specialist

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\*NIOSH Publication #94-116

\*\*Sax's Dangerous Properties of Industrial Mtls. 11th Ed.