

1. Product and Company Identification

Product Code: JP-K86 ENG
Product Name: JP-K86
Trade Name: JP-K86
Company Name: Hitachi America, Ltd
50 Prospect Ave
Tarrytown, NY
Web site address: www.hitachi-america.us/ice/inkjetprinters/
Emergency Contact: Chemtrec
(800)424-9300

2. Hazards Identification

Flammable Liquids, Category 2
Serious Eye Damage/Eye Irritation, Category 2
Skin Corrosion/Irritation, Category 3
Toxic To Reproduction, Category 2
Specific Target Organ Toxicity (single exposure), Category 1
Specific Target Organ Toxicity (single exposure), Category 2
Specific Target Organ Toxicity (single exposure), Category 3
Specific Target Organ Toxicity (repeated exposure), Category 1
Specific Target Organ Toxicity (repeated exposure), Category 2
Aspiration Toxicity, Category 2



GHS Signal Word: **Danger**

GHS Hazard Phrases: Highly flammable liquid and vapor.
Causes serious eye irritation.
Causes mild skin irritation.
Suspected of damaging fertility or the unborn child .
Causes damage to organs
May cause damage to organs .
May cause respiratory irritation.
Causes damage to organs through prolonged or repeated exposure.
May cause damage to organs through prolonged or repeated exposure.
May be harmful if swallowed and enters airways.

GHS Precaution Phrases: Keep container tightly closed.
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Wear protective gloves/protective clothing/eye protection/face protection.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting equipment.
Take precautionary measures against static discharge.
Use only non-sparking tools.
Wash hands thoroughly after handling.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Use personal protective equipment as required.
Do not breathe dust/fume/gas/mist/vapours/spray.
Do not eat, drink or smoke when using this product.
Avoid breathing dust/fume/gas/mist/vapours/spray.

GHS Response Phrases:

Use only outdoors or in a well-ventilated area.

In case of fire, use dry chemical, CO2, water spray, fog or foam to extinguish.

IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists, get medical advice/attention.

If skin irritation occurs, get medical advice/attention.

IF exposed or concerned: Get medical attention/advice.

Specific treatment see Section 4 on this label.

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Call a POISON CENTER/doctor if you feel unwell.

Get medical attention/advice if you feel unwell.

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

Do NOT induce vomiting.

GHS Storage and Disposal Phrases:

Store in cool/well-ventilated place.

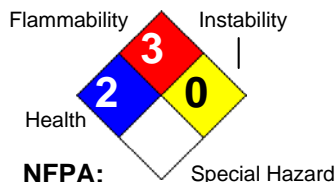
Dispose of contents/container listed in 40 CFR Parts 261.

Store locked up.

Store container tightly closed in well-ventilated place - if product is as volatile as to generate hazardous atmosphere.

Hazard Rating System:

HEALTH	2
FLAMMABILITY	3
PHYSICAL	0
PPE	B



HMIS:

Potential Health Effects (Acute and Chronic):

Chronic: Prolonged or repeated skin contact may cause dermatitis. Chronic inhalation may cause effects similar to those of acute inhalation. Matsushita et al. exposed human volunteers 6 hours/day for 6 days at 500 ppm acetone and found hematologic changes including significantly increased leukocyte and eosinophil counts and decreased neutrophil phagocytic activity. Prolonged or repeated skin contact may cause defatting and dermatitis. Animal studies have reported that fetal effects/abnormalities may occur when maternal toxicity is seen. Chronic overexposure to vapors may cause lung damage.

Inhalation:

Inhalation of high concentrations may cause central nervous system effects characterized by nausea, headache, dizziness, unconsciousness and coma. Causes respiratory tract irritation. May cause motor incoordination and speech abnormalities. Inhalation of vapors may cause drowsiness and dizziness. May cause central nervous system effects such as nausea and headache. Neurobehavioural effects of exposure to MEK (200 ppm for 4 hrs) were studied with 137 volunteers. There were no statistically significant effects observed in biochemical, psychomotor, sensorimotor and psychological tests.

Skin Contact:

May be absorbed through the skin. Repeated or prolonged exposure may cause drying and cracking of the skin. May be absorbed through the skin in harmful amounts. Only one human case of skin sensitization was located. Negative results were obtained in an animal test; MEK did not produce skin sensitization in the mouse ear thickness test.

Eye Contact:

Produces irritation, characterized by a burning sensation, redness, tearing, inflammation, and possible corneal injury. Vapors may cause eye irritation. Causes eye irritation. Animal evidence suggests that MEK is a moderate to severe eye irritant.

Ingestion:

May cause irritation of the digestive tract. May cause central nervous system depression, characterized by excitement, followed by headache, dizziness, drowsiness, and nausea.

Advanced stages may cause collapse, unconsciousness, coma and possible death due to respiratory failure. Aspiration of material into the lungs may cause chemical pneumonitis, which may be fatal. Possible aspiration hazard. May cause central nervous system depression. Animal evidence suggests that MEK can be aspirated (inhaled) into the lungs during ingestion or vomiting.

3. Composition/Information on Ingredients

CAS #	Hazardous Components (Chemical Name)	Concentration
67-64-1	Acetone	70.0 -80.0 %
78-93-3	Methyl ethyl ketone	5.0 -15.0 %
NA	Proprietary chrome complex	1.0 -10.0 %

4. First Aid Measures

Emergency and First Aid

Procedures:

- In Case of Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.
- In Case of Skin Contact:** In case of contact, flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical aid if irritation develops and persists. Wash clothing before reuse.
- In Case of Eye Contact:** In case of contact, immediately flush eyes with plenty of water for a t least 15 minutes. Get medical aid.
- In Case of Ingestion:** Potential for aspiration if swallowed. Get medical aid immediately. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If vomiting occurs naturally, have victim lean forward.
- Note to Physician:** Treat symptomatically and supportively.

5. Fire Fighting Measures

- Flash Pt:** > -20.00 C (-4.0 F) Method Used: Closed Cup
- Explosive Limits:** LEL: UEL:
- Autoignition Pt:** 538.00 C (1000.4 F)
- Suitable Extinguishing Media:** Use dry chemical, carbon dioxide, or appropriate foam. Water may be ineffective because it will not cool material below its flash point. In case of fire, use carbon dioxide, dry chemical powder or appropriate foam.
- Fire Fighting Instructions:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid. As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool. Extremely flammable liquid and vapor. Vapor may cause flash fire. Vapors are heavier than air and may travel to a source of ignition and flash back. Vapors can spread along the ground and collect in low or confined areas.

Flammable Properties and Hazards:

6. Accidental Release Measures

Steps To Be Taken In Case Material Is Released Or Spilled: Use proper personal protective equipment as indicated in Section 8. Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Avoid runoff into storm sewers and ditches which lead to waterways. Wear appropriate protective clothing to minimize contact with skin. Remove all sources of ignition. Provide ventilation. A vapor suppressing foam may be used to reduce vapors. Water spray may reduce vapor but may not prevent ignition in closed spaces. Use only non-sparking tools and equipment. Clean up spills immediately, observing precautions in the Protective Equipment section. Use a spark-proof tool.

7. Handling and Storage

Precautions To Be Taken in Handling: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Ground and bond containers when transferring material. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames. Use only with adequate ventilation. Keep away from heat, sparks and flame. Avoid breathing vapor. Use spark-proof tools and explosion proof equipment.

Precautions To Be Taken in Storing: Keep away from sources of ignition. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Flammables-area.

8. Exposure Controls/Personal Protection

CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
67-64-1	Acetone	PEL: 1000 ppm	TLV: 500 ppm STEL: 750 ppm	
78-93-3	Methyl ethyl ketone	PEL: 200 ppm	TLV: 200 ppm STEL: 300 ppm	
NA	Proprietary chrome complex			

Respiratory Equipment (Specify Type): A NIOSH/MSHA approved or European Standard EN 149 air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Eye Protection: Wear chemical splash goggles.

Protective Gloves: Wear butyl rubber gloves, apron, and/or clothing. Wear appropriate protective gloves to prevent skin exposure.

Other Protective Clothing: Wear appropriate protective clothing to prevent skin exposure.

Engineering Controls (Ventilation etc.): Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits. Ventilation fans and other electrical service must be non-sparking and have an explosion-proof design.

9. Physical and Chemical Properties

Physical States: [] Gas [X] Liquid [] Solid
Appearance and Odor: Black.
 solvent odor.
Melting Point: -94.00 C (-137.2 F) - -87.00 C (-124.6 F)
Boiling Point: 56.50 C (133.7 F) - 80.00 C (176.0 F)
Autoignition Pt: 538.00 C (1000.4 F)
Flash Pt: > -20.00 C (-4.0 F) Method Used: Closed Cup
Explosive Limits: LEL: UEL:
Specific Gravity (Water = 1): 0.8215
Density: ~ 0.8050 G/ML
Vapor Pressure (vs. Air or mm Hg):
Vapor Density (vs. Air = 1):
Evaporation Rate:
Solubility in Water:
Percent Volatile:

10. Stability and Reactivity

Stability: Unstable [] Stable [X]
Conditions To Avoid - Instability: High temperatures, ignition sources, confined spaces, Excess heat.
Incompatibility - Materials To Avoid: Strong oxidizing agents, Strong reducing agents, Strong bases, Nitric acid, hexachloromelamine, sulfur dichloride, potassium tert-butoxide, Strong acids, 2-propanol.
Hazardous Decomposition Or Byproducts: Carbon monoxide, Carbon dioxide.
Possibility of Hazardous Reactions: Will occur [] Will not occur [X]
Conditions To Avoid - Hazardous Reactions:

11. Toxicological Information

Toxicological Information:
Carcinogenicity/Other Information: CAS# 67-64-1: Not listed by ACGIH, IARC, NTP, or CA Prop 65. CAS# 78-93-3: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

CAS #	Hazardous Components (Chemical Name)	NTP	IARC	ACGIH	OSHA
67-64-1	Acetone	n.a.	n.a.	A4	n.a.
78-93-3	Methyl ethyl ketone	n.a.	n.a.	n.a.	n.a.
NA	Proprietary chrome complex	n.a.	n.a.	n.a.	n.a.

12. Ecological Information

General Ecological Information:

Environmental: Volatilizes, leeches, and biodegrades when released to soil.

TERRESTRIAL FATE: If released on soil, acetone will both volatilize and leach into the ground. Acetone readily biodegrades and there is evidence suggesting that it biodegrades fairly rapidly in soils. AQUATIC FATE: If released into water, acetone will probably biodegrade. It is readily biodegradable in screening tests, although data from natural water are lacking. It will also be lost due to volatilization (estimated half-life 20 hr from a model river). Adsorption to sediment should not be significant.

Physical: ATMOSPHERIC FATE: In the atmosphere, acetone will be lost by photolysis and reaction with photochemically produced hydroxyl radicals. Half-life estimates from these combined processes are 79 and 13 days in January and June, respectively, for an overall annual average of 22 days. Therefore considerable dispersion should occur. Being miscible in water, wash out by rain should be an important removal process. This process has been confirmed around Lake Shinsei-ko in Japan. There acetone was found in the air and rain as well as the lake.

Other: No information available. Substance evaporates in water with T1/2= 3D (rivers) to 12D (lakes). Substance is not expected to bioconcentrate in marine life. Physical: Substance photodegrades in air with T1/2 = 2.3 days. Oxidizes rapidly by photo-chemical reactions in air. Readily biodegradable meeting the 10 day window criterion. Not expected to bioaccumulate significantly.

13. Disposal Considerations

Waste Disposal Method:

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series:

CAS# 67-64-1: waste number U002 (Ignitable waste): waste number U154. CAS# 78-93-3: waste number U159 (Ignitable waste, Toxic waste).

14. Transport Information

LAND TRANSPORT (US DOT):

DOT Proper Shipping Name: Printing ink
DOT Hazard Class: 3 FLAMMABLE LIQUID
UN/NA Number: UN1210 **Packing Group:** II



LAND TRANSPORT (Canadian TDG):

TDG Shipping Name: Printing ink
UN Number: 1210 **Packing Group:** II
Hazard Class: 3 - FLAMMABLE LIQUID **TDG Classification:**

LAND TRANSPORT (European ADR/RID):

ADR/RID Shipping Name:
UN Number: 1210 **Packing Group:** II
Hazard Class: 3 - FLAMMABLE LIQUID

15. Regulatory Information

EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists

CAS #	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
67-64-1	Acetone	No	Yes 5000 LB	No
78-93-3	Methyl ethyl ketone	No	Yes 5000 LB	No
NA	Proprietary chrome complex	No	No	No

This material meets the EPA Yes No Acute (immediate) Health Hazard

'Hazard Categories' defined Yes No Chronic (delayed) Health Hazard

for SARA Title III Sections Yes No Fire Hazard

311/312 as indicated: Yes No Sudden Release of Pressure Hazard

Yes No Reactive Hazard

CAS #	Hazardous Components (Chemical Name)	Other US EPA or State Lists
67-64-1	Acetone	TSCA: Yes - Inventory, 4 Test; CA PROP.65: No; CA TAC, Title 8: Title 8; NC TAP: No
78-93-3	Methyl ethyl ketone	TSCA: Yes - Inventory; CA PROP.65: No; CA TAC, Title 8: TAC, Title 8; NC TAP: Yes
NA	Proprietary chrome complex	TSCA: No; CA PROP.65: No; CA TAC, Title 8: No; NC TAP: No

CAS #	Hazardous Components (Chemical Name)	International Regulatory Lists
67-64-1	Acetone	Canadian DSL: Yes; Canadian NDSL: No; Mexico INSQ: Yes; Australia ICS: Yes; New Zealand IOC: Yes; Japan ENCS: Yes - (2)-542; Japan ISHL: No; Israel HSL: No; Germany WHCS: Yes - 6; Switzerland Giftliste 1: Yes - G-1031; Switzerland INNS: No; REACH: Yes - (R), (P)
78-93-3	Methyl ethyl ketone	Canadian DSL: Yes; Canadian NDSL: No; Mexico INSQ: Yes - 1193; Australia ICS: Yes; New Zealand IOC: Yes; Japan ENCS: Yes - (2)-542; Japan ISHL: No; Israel HSL: No; Germany WHCS: Yes - 150; Switzerland Giftliste 1: Yes - G-2429; Switzerland INNS: No; REACH: Yes - (R), (P)
NA	Proprietary chrome complex	Canadian DSL: No; Canadian NDSL: No; Mexico INSQ: No; Australia ICS: No; New Zealand IOC: No; Japan ENCS: No; Japan ISHL: No; Israel HSL: No; Germany WHCS: No; Switzerland Giftliste 1: No; Switzerland INNS: No; REACH: Yes - (P)

16. Other Information

Revision Date: 11/26/2014

Additional Information About This Product: To the best of our knowledge, the information contained here in is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

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