

1. Product and Company Identification

Product Name: JP-K304A, 1304K
Company Name: Hitachi Industrial Equipment & Solutions America, LLC
2730 Greenleaf Avenue
Elk Grove Village, IL 60007
Phone Number: (866)583-0048
Web site address: <https://www.hitachi-iesa.com/industrial-marking-and-coding>
Emergency Contact: Chemtrec (800)424-9300
Information: Christian Krzykwa (980)500-7144
Intended Use: Printing ink

2. Hazards Identification

Flammable Liquids, Category 2
Serious Eye Damage/Eye Irritation, Category 2
Acute Toxicity: Oral, Category 5
Acute Toxicity: Inhalation, Category 5
Skin Corrosion/Irritation, 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
Aspiration Toxicity, Category 2



GHS Signal Word: **Danger**

GHS Hazard Phrases: H225 - Highly flammable liquid and vapor.
H303 - May be harmful if swallowed.
H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H333 - May be harmful if inhaled.
H370 - Causes damage to organs kidneys
H370 - Causes damage to organs
Causes respiratory irritation.
H372 - Causes damage to organs central and peripheral nervous systems through prolonged or repeated exposure.

GHS Precautionary Phrases: P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233 - Keep container tightly closed.
P240 - Ground/bond container and receiving equipment.
P241 - Use explosion-proof electrical/ventilating/lighting/.../ equipment.
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
P264 - Wash hands thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or in a well-ventilated area.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P235 - Keep cool.

GHS Response Phrases:

P370+378 - In case of fire, use dry chemical, CO2, water spray or foam to extinguish.
P301+310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P302+352 - IF ON SKIN: Wash with plenty of soap and water.
P360 - Rinse immediately contaminated clothing and skin with plenty of water before removing clothes. P353 - Rinse skin with water [or shower].
P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+351+338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+311 - If exposed or concerned: Call a POISON CENTER/Doctor/...
P314 - Get medical attention/advice if you feel unwell.
P331 - Do NOT induce vomiting.
P332+313 - If skin irritation occurs, get medical advice/attention.
P337+313 - If eye irritation persists, get medical advice/attention.
P362+364 - Take off contaminated clothing and wash it before reuse.
P403+233 - Store container tightly closed in a cool and well-ventilated place.
P405 - Store locked up.
P501 - Dispose of contents/container in accordance with local regulations.

GHS Storage and Disposal Phrases:

Emergency Overview:

Potential Health Effects (Acute and Chronic):

Hazards not otherwise classified (HNOC) or not covered by GHS.

3. Composition/Information on Ingredients

CAS #	Hazardous Components (Chemical Name)	Concentration
78-93-3	Methyl ethyl ketone	60.0 -80.0 %
NA	Proprietary chrome complex	1.0 -10.0 %

4. First Aid Measures

Emergency and First Aid Procedures:

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

In Case of Inhalation:

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In Case of Skin Contact:

Wash off with soap and plenty of water. Consult a physician.

In Case of Eye Contact:

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

In Case of Ingestion:

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Signs and Symptoms Of Exposure:

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed:

No data available.

5. Fire Fighting Measures

Flash Pt:	-2.99 C (26.6 F) Method Used: Closed Cup
Explosive Limits:	LEL: 1.8 %(V) UEL: 10.1 %(V)
Autoignition Pt:	No data.
Suitable Extinguishing Media:	Use water spray, dry chemical, carbon dioxide, or alcohol-resistant foam.
Fire Fighting Instructions:	Wear self contained breathing apparatus for fire fighting if necessary. Further information.
Flammable Properties and Hazards:	Carbon oxides, Flash back possible over considerable distance. Container explosion may occur under fire conditions.
Hazardous Combustion Products:	No data available.

6. Accidental Release Measures

Protective Precautions, Protective Equipment and Emergency Procedures:	Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. For personal protection see section 8.
Environmental Precautions:	Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Steps To Be Taken In Case Material Is Released Or Spilled:	Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

7. Handling and Storage

Precautions To Be Taken in Handling:	Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Use explosion-proof equipment. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. For precautions see section 2.
Precautions To Be Taken in Storing:	Keep container tightly closed in a cool, dry, and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Hygroscopic. Storage class 510)
Other Precautions:	Apart from the uses mentioned in section 1 no other specific uses are stipulated.

8. Exposure Controls/Personal Protection

CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
78-93-3	Methyl ethyl ketone	PEL: 200 ppm	TLV: 200 ppm STEL: 300 ppm	No data.
NA	Proprietary chrome complex	No data.	No data.	No data.

Personal Protective Equipment Symbols:



Respiratory Equipment (Specify Type):

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi- purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls.

If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Eye Protection:

Face shield and safety glasses.

Protective Gloves:

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. Splash contact:
Material: butyl-rubber Minimum layer thickness: 0.3 mm Break through time: 292 min. If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Other Protective Clothing:

Impervious clothing. Flame retardant antistatic protective clothing.

Engineering Controls (Ventilation etc.):

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Environmental Exposure Controls:

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

9. Physical and Chemical Properties

Physical States:	[] Gas [X] Liquid [] Solid
Appearance and Odor:	Black. solvent odor.
pH:	Not available
Melting Point:	-86.99 C (-124.6 F)
Boiling Point:	80.00 C (176.0 F)
Flash Pt:	-2.99 C (26.6 F) Method Used: Closed Cup
Evaporation Rate:	Not available
Flammability (solid, gas):	No data available.
Explosive Limits:	LEL: 1.8 %(V) UEL: 10.1 %(V)
Vapor Pressure (vs. Air or mm Hg):	95 hPa at 20.0 C (68.0 F) No data.
Vapor Density (vs. Air = 1):	2.49 - (Air=1.0)
Specific Gravity (Water = 1):	.805
Solubility in Water:	soluble
Saturated Vapor Concentration:	No data.
Octanol/Water Partition Coefficient:	0.29

Autoignition Pt: No data.
Decomposition Temperature: No data.
Viscosity: Not available

Explosive Properties: No data available.
Oxidizing Properties: No data available.

Information with regard to primary physical hazard:

10. Stability and Reactivity

Reactivity: No data available.
Stability: Unstable [] Stable [X]
Conditions To Avoid - Instability: Exposure to moisture. Heat.
Incompatibility - Materials To Avoid: Oxidizing agents, Strong reducing agents.
Hazardous Decomposition or Byproducts: No data available. In the event of fire: see section 5.
Possibility of Hazardous Reactions: Will occur [] Will not occur [X]
Conditions To Avoid - Hazardous Reactions: Vapors may form explosive mixture with air.

11. Toxicological Information

Toxicological Information: Acute toxicity.

Germ cell mutagenicity: No data available.

Reproductive toxicity. Aspiration hazard:

CAS# 78-93-3:

1. Acute toxicity, TCl_o, Inhalation, Human, 100.0 PPM, 5 M.

Result:

Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Olfaction:Other changes.

Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Eye:Conjunctive irritation.

Lungs, Thorax, or Respiration:Other changes.

- Journal of Industrial Hygiene and Toxicology, Vol/p/yr: 25,282, 1943

2. Acute toxicity, LD₅₀, Oral, Mouse, 4050. MG/KG.

Result:

Behavioral: Sleep.

Behavioral: Headache.

Gastrointestinal:Nausea or vomiting.

- Toxicology Letters., Elsevier Science Pub. B.V., POB 211, 1000 AE, Amsterdam 1000 AE Netherlands, Vol/p/yr: 30,13, 1986

3. Acute toxicity, LC₅₀, Inhalation, Mouse, 32.00 GM/M3, 4 H.

Result:

Gastrointestinal: Alteration in gastric secretion.

Gastrointestinal:Other changes.

- Current Toxicology, Nova Science Publishers, Inc., 6080 Jericho Turnpike, Suite 207, Commack, NY 11725, Vol/p/yr: 1,47, 1993

4. Acute toxicity, LD50, Intraperitoneal, Mouse, 616.0 MG/KG.

Result:

Behavioral: Change in motor activity (specific assay).

Behavioral: Ataxia.

Behavioral: Antipsychotic.

- Shell Chemical Company. Unpublished Report., Vol/p/yr: -,6, 1961

5. Acute toxicity, LD50, Skin, Species: Rabbit, 6480. MG/KG.

Result:

Behavioral: Hallucinations, distorted perceptions.

Endocrine:Effect on menstrual cycle.

- Shell Chemical Company., Vol/p/yr: MSDS-5390-,

6. Acute toxicity, TClO, Inhalation, Human, 10.00 ppm.

Result:

Cardiac: Pulse rate decreased with fall in BP.

Lungs, Thorax, or Respiration:Other changes.

- Neurotoxicology., Intox Press, Inc., POB 34075, Little Rock, AR 72203, Vol/p/yr: 24,179, 2003

7. Acute toxicity, LC50, Inhalation, Mouse, 32.00 mg/m3.

Result:

Liver: Fatty liver degeneration.

8. Standard Draize Test, Eyes, Human, 350.0 PPM.

Result:

Tumorigenic: Equivocal tumorigenic agent by RTECS criteria.

Gastrointestinal:Tumors.

Liver: Tumors.

- Journal of Industrial Hygiene and Toxicology, Vol/p/yr: 25,282, 1943

9. Standard Draize Test, Skin, Species: Rabbit, 500.0 MG, 24 H.

Result:

Behavioral: Ataxia.

Lungs, Thorax, or Respiration:Dyspnea.

Gastrointestinal:Hypermotility, diarrhea.

- Journal of Industrial Hygiene and Toxicology, Vol/p/yr: 25,282, 1943

Irritation or Corrosion:

Skin corrosion/irritation.

Result: Tumorigenic:Tumors at site or application. No skin irritation . (OECD Test Guideline 404) Serious eye damage/eye irritation Eyes -Rabbit Irritating to eyes .

Sensitization:

No data available.

Chronic Toxicological Effects:

Specific target organ toxicity - single exposure: May cause drowsiness or dizziness.

Specific target organ toxicity -repeated exposure: no data available.

Carcinogenicity/Other Information:

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is

identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

CAS #	Hazardous Components (Chemical Name)	NTP	IARC	ACGIH	OSHA
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

Results of PBT and vPvB assessment:	No data available.
Persistence and Degradability:	PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.
Bioaccumulative Potential:	No data available.
Mobility in Soil:	No data available.
Other adverse effects:	No data available.

13. Disposal Considerations

Waste Disposal Method:	Product: Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Contaminated packaging:
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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:	UN1210	Packing Group:	II
Hazard Class:	3 - FLAMMABLE LIQUID	TDG Classification:	

LAND TRANSPORT (European ADR/RID):

ADR/RID Shipping Name:	Printing ink.		
UN Number:	UN1210	Packing Group:	II
Hazard Class:	3 - FLAMMABLE LIQUID		

MARINE TRANSPORT (IMDG/IMO):

IMDG/IMO Shipping Name:	Printing ink.		
UN Number:	UN1210	Packing Group:	II
Hazard Class:	3 - FLAMMABLE LIQUID		

IMDG MFAG Number:

AIR TRANSPORT (ICAO/IATA):

ICAO/IATA Shipping Name: Printing ink.
UN Number: UN1210 **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)
78-93-3	Methyl ethyl ketone	No	Yes NA	No
NA	Proprietary chrome complex	No	No	No

This material meets the EPA 'Hazard Categories' defined for SARA Title III Sections 311/312 as indicated:

<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Explosive	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Acute toxicity (any route of exposure)
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Flammable (gases, aerosols, liquid, or solid)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Skin Corrosion or Irritation
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Oxidizer (liquid, solid or gas)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Serious eye damage or eye irritation
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Self-reactive	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Respiratory or Skin Sensitization
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Pyrophoric (liquid or solid)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Germ cell mutagenicity
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Pyrophoric gas	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Carcinogenicity
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Self-heating	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Reproductive toxicity
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Organic peroxide	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Specific target organ toxicity (single or repeated exposure)
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Corrosive to metal	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Aspiration Hazard
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Gas under pressure (compressed gas)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Simple Asphyxiant
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	In contact with water emits flammable gas	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	(Health) Hazard Not Otherwise Classified (HNOC)
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Combustible Dust		
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	(Physical) Hazard Not Otherwise Classified (HNOC)		

CAS #	Hazardous Components (Chemical Name)	Canadian NPRI	Canadian Toxic	Canadian DSL
78-93-3	Methyl ethyl ketone	Yes: Part 5	No	Yes
NA	Proprietary chrome complex	No	No	No

California Proposition 65



WARNING

This product can expose you to chemicals including Toluene, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

CAS #	Hazardous Components (Chemical Name)	Other US EPA or State Lists
78-93-3	Methyl ethyl ketone	TSCA: Inventory CA TAC, Title 8: TAC: Cat. IIa, Title 8 NC TAP: Yes: NC TAP
NA	Proprietary chrome complex	

CAS #	Hazardous Components (Chemical Name)	International Regulatory Lists
78-93-3	Methyl ethyl ketone	Mexico INSQ: 1193 Japan ENCS: 2-542 Germany WHCS: 150: WGK 1 Switzerland Giftliste 1: G-2429 REACH: 01-2119457290-43: Full, (P) REACH: (P)
NA	Proprietary chrome complex	

16. Other Information

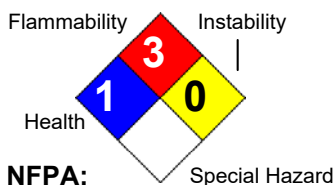
Revision Date: 01/25/2023

Previous revision: 08/09/2018

Hazard Rating System:

HEALTH		1
FLAMMABILITY		3
PHYSICAL		0
PPE		B

HMIS:



Additional Information About This Product:

To the best of our knowledge, the information contained herein 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 presented in this document. Final determination of suitability of any material is the sole responsibility of the user to follow local, state and federal laws and regulations in regards to handling of hazardous materials. Although certain hazards are described herein, unknown hazards may exist and caution should always be exercised.

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Company Policy or Disclaimer: