This SDS complies with the Canadian Hazardous Products Regulations of 2015.

1. Product and Company Identification

Product Name: JP-K414ci, 1414Kci

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 Related Material

2. Hazards Identification

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

GHS Signal Word: **Danger**

GHS Hazard Phrases:
H225 - Highly flammable liquid and vapor.
H319 - Causes serious eye irritation.
H302 - Harmful if swallowed.
H332 - Harmful if inhaled.
H316 - Causes mild skin irritation.
H370 - Causes damage to organs
Causes respiratory irritation.
H372 - Causes damage to organs 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.
P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.
P271 - Use only outdoors or in a well-ventilated area.
P272 - Contaminated work clothing should not be allowed out of the workplace.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P264 - Wash hands thoroughly after handling.
P260 - Do not breathe dust/fume/gas/mist/vapors/spray.

GHS Response Phrases:
P370+378 - In case of fire, use dry chemical, CO2, water spray, or foam to extinguish.
P303+361+353 - IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.

P363 - Wash contaminated clothing before reuse.
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+313 - IF exposed or concerned: Get medical attention/advice.
P332+313 - If skin irritation occurs, get medical advice/attention.
P337+313 - If eye irritation persists, get medical advice/attention.

GHS Storage and Disposal Phrases: P403+233 - Store container tightly closed in a cool and well-ventilated place.
P403+235 - Store in cool & well-ventilated place. P405 - Store locked up.
P501 - Dispose of contents/container ...

Emergency Overview:

3. Composition/Information on Ingredients

CAS #	Hazardous Components (Chemical Name)	Concentration
25085-75-0	Formaldehyde, polymer with 4,4'-(1-methylethylidene)bis[phenol]	5.0 -20.0 %
80-05-7	4,4'-Isopropylidenediphenol	1.0 -5.0 %
64-17-5	Ethyl alcohol	10.0 -20.0 %
78-93-3	Methyl ethyl ketone	30.0 -60.0 %
NA	Proprietary chrome complex	1.0 -10.0 %

4. First Aid Measures

Emergency and First Aid Procedures: No data available.

5. Fire Fighting Measures

Flash Pt: 0.50 C (32.9 F) Method Used: TAG Closed Cup
Explosive Limits: LEL: No data. UEL: No data.
Autoignition Pt: 425.00 C (797.0 F)
Suitable Extinguishing Media: No data available.
Fire Fighting Instructions: No data available.
Flammable Properties and Hazards: No data available.
Hazardous Combustion Products: No data available.

6. Accidental Release Measures

Steps To Be Taken In Case Material Is Released Or Spilled: No data available.

7. Handling and Storage

Precautions To Be Taken in Handling: No data available.

8. Exposure Controls/Personal Protection

CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
25085-75-0	Formaldehyde, polymer with 4,4'-(1-methylethylidene)bis[phenol]	No data.	No data.	No data.
80-05-7	4,4'-Isopropylidenediphenol	No data.	No data.	No data.
64-17-5	Ethyl alcohol	PEL: 1000 ppm	TLV: 1000 ppm STEL: 1000 ppm	No data.
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): No data available.

Eye Protection: No data available.

Protective Gloves: No data available.

Other Protective Clothing: No data available.

Engineering Controls (Ventilation etc.): No data available.

9. Physical and Chemical Properties

Physical States: [ ] Gas [X] Liquid [ ] Solid

Appearance and Odor: Black.
Ketone odor.

pH: No data.

Melting Point: -89.50 C (-129.1 F) - 159.00 C (318.2 F)

Boiling Point: 80.00 C (176.0 F)

Flash Pt: 0.50 C (32.9 F) Method Used: TAG Closed Cup

Evaporation Rate: No data.

Flammability (solid, gas): No data available.

Explosive Limits: LEL: No data. UEL: No data.

Vapor Pressure (vs. Air or mm Hg): No data.

Vapor Density (vs. Air = 1): No data.

Specific Gravity (Water = 1): No data.

Density: ~ 0.829 g/mL

Solubility in Water: No data.

Saturated Vapor Concentration: No data.

Octanol/Water Partition Coefficient: No data.

Autoignition Pt: 425.00 C (797.0 F)

Decomposition Temperature: No data.

Viscosity: No data.

10. Stability and Reactivity

Stability: Unstable [ ] Stable [X]

Conditions To Avoid - Instability: No data available.

Incompatibility - Materials To Avoid: No data available.

Hazardous Decomposition or Byproducts: No data available.

Possibility of Hazardous Reactions: Will occur [ ] Will not occur [X]

Conditions To Avoid - Hazardous Reactions: No data available.

11. Toxicological Information

Toxicological Information:

CAS# 78-93-3:
1. Acute toxicity, TCLo, 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

CAS #	Hazardous Components (Chemical Name)	NTP	IARC	ACGIH	OSHA
25085-75-0	Formaldehyde, polymer with 4,4'-(1-methylethylidene)bis[phenol]	n.a.	n.a.	n.a.	n.a.
80-05-7	4,4'-Isopropylidenediphenol	n.a.	n.a.	n.a.	n.a.
64-17-5	Ethyl alcohol	n.a.	1	Unknown	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

No data available.

13. Disposal Considerations

Waste Disposal Method: No data available.

14. Transport Information

LAND TRANSPORT (US DOT):

DOT Proper Shipping Name: Printing ink, [flammable or] Printing ink related material [(including printing ink thinning or reducing compound), flammable]

DOT Hazard Class: 3 FLAMMABLE LIQUID

UN/NA Number: UN1210 **Packing Group:** II

LAND TRANSPORT (Canadian TDG):

TDG Shipping Name:

UN Number: UN1210 **Packing Group:** II

Hazard Class: 3 - FLAMMABLE LIQUID **TDG Classification:**

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)
25085-75-0	Formaldehyde, polymer with 4,4'-(1-methylethylidene)bis[phenol]	No	No	No
80-05-7	4,4'-Isopropylidenediphenol	No	No	Yes
64-17-5	Ethyl alcohol	No	No	No
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:

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

CAS #	Hazardous Components (Chemical Name)	Canadian NPRI	Canadian Toxic	Canadian DSL
25085-75-0	Formaldehyde, polymer with 4,4'-(1-methylethylidene)bis[phenol]	No	No	Yes
80-05-7	4,4'-Isopropylidenediphenol	Yes: Part 1B	Yes - 96.	Yes
64-17-5	Ethyl alcohol	Yes: Part 5		Yes
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 Naphthalene; Styrene and Formaldehyde, which are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov. This product can expose you to chemicals including Bisphenol A (BPA) and Toluene, which are 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
25085-75-0	Formaldehyde, polymer with	TSCA: Inventory

	4,4'-(1-methylethylidene)bis[phenol]	
80-05-7	4,4'-Isopropylidenediphenol	TSCA: Inventory CA PROP.65: Yes: RDTox(F) CA TAC, Title 8: TAC: Cat. IVb
64-17-5	Ethyl alcohol	TSCA: Inventory CA TAC, Title 8: Title 8
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
25085-75-0	Formaldehyde, polymer with 4,4'-(1-methylethylidene)bis[phenol]	Japan ENCS: 7-915 REACH: (P)
80-05-7	4,4'-Isopropylidenediphenol	Japan ENCS: 4-123 Germany WHCS: 1308: WGK 2 Switzerland Giftliste 1: G-2163 REACH: 01-2119457856-23: Full, (P)
64-17-5	Ethyl alcohol	Japan ENCS: 5-153 Israel HSL: Cat. Germany WHCS: 96: WGK 1 Switzerland Giftliste 1: G-1158 REACH: 01-2119457610-43: Full, (P)
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)
NA	Proprietary chrome complex	REACH: (P)

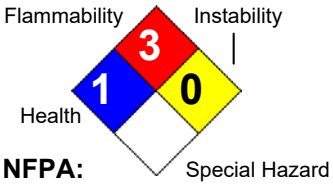
16. Other Information

Revision Date: 05/01/2019 **Previous revision:** 01/11/2019

Hazard Rating System:

HMIS:

NFPA:



Additional Information About This Product: No data available.

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