

This SDS complies with the US OSHA HCS 2012.

1. Product and Company Identification

Product Name: JP-K81A, 2081K
Company Name: Hitachi Industrial Equipment & Solutions America, LLC
 75 NW Point Blvd Suite D,
 Elk Grove Village, IL 60007
Phone Number: (800)627-5464
Web site address: <https://mc.hitachi-iesa.com>
Emergency Contact: Chemtrec (800)424-9300

Intended Use: Printing ink for industrial inkjet printers.

2. Hazards Identification

Flammable Liquids, Category 2
Acute Toxicity: Inhalation, Category 4
Skin Corrosion/Irritation, Category 3
Serious Eye Damage/Eye Irritation, Category 1
Specific Target Organ Toxicity (single exposure), Category 3
Aquatic Toxicity (Acute), Category 3
Toxic To Reproduction, Category 1B



GHS Signal Word: **Danger**

GHS Hazard Phrases:
 H225 - Highly flammable liquid and vapor.
 H316 - Causes mild skin irritation.
 H318 - Causes serious eye damage.
 H320 - Causes eye irritation.
 H332 - Harmful if inhaled.
 H335 - May cause respiratory irritation.
 H336 - May cause drowsiness or dizziness.
 H402 - Harmful to aquatic life.
 H361f - Suspected of damaging fertility.

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/printing 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.
 P273 - Avoid release to the environment.
 P280 - Wear protective gloves/protective clothing/eye protection/face protection.
 P281 - Use personal protective equipment as required.
 P235 - Keep cool.

GHS Response Phrases: P303+361+353 - IF ON SKIN (or hair): Remove/take off immediately all contaminated

clothing. Rinse skin with water/shower.
 P302+352 - IF ON SKIN: Wash with plenty of soap and water.
 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.
 P309+311 - Call a POISON CENTER or doctor/physician if exposed or you feel unwell.
 P370+378 - In case of fire, use dry sand, dry chemical, or alcohol-resistant foam to extinguish.
 P331 - Do NOT induce vomiting.
 P403+233 - Store container tightly closed in well-ventilated place.
 P405 - Store locked up.
 P501 - Dispose of contents/container in accordance with local regulations.

GHS Storage and Disposal Phrases:

Emergency Overview:

Inhalation: Inhalation of vapors may cause drowsiness and dizziness. May cause central nervous system effects such as nausea and headache. May cause respiratory irritation.

Skin Contact: Repeated exposure may cause skin dryness or cracking. May be absorbed through the skin in harmful amounts.

Eye Contact: Causes serious eye irritation. May cause eye irritation and possible damage. Vapors may cause eye irritation.

Ingestion: May cause irritation of the digestive tract. May cause central nervous system depression.

3. Composition/Information on Ingredients

CAS #	Hazardous Components (Chemical Name)	Concentration
67-64-1	Acetone	60.0 -70.0 %
64-17-5	Ethyl alcohol	1.0 -10.0 %
2530-83-8	3-Glycidoxypropyltrimethoxysilane	< 5.0 %
NA	Proprietary Ingredient (Chrome (III) Complex)	< 5.0 %

4. First Aid Measures

Emergency and First Aid Procedures: Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

In Case of Inhalation: If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid. If breathed in, move person into fresh air. If experiencing respiratory symptoms call a POISON CENTER or doctor/physician.

In Case of Skin Contact: IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. Wash clothing before reuse. Remove contaminated clothing and shoes. If skin irritation or rash occurs, seek medical advice/attention.

In Case of Eye Contact: Get medical aid. Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If eye irritation persists, get medical advice/attention.

In Case of Ingestion: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Potential for aspiration if swallowed. Do not induce vomiting unless directed to do so by medical personnel. Wash out mouth with water provided person is conscious. If vomiting occurs naturally, have victim lean forward.

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

Note to Physician: Treat symptomatically and supportively.

5. Fire Fighting Measures

Flash Point: -17.00 C (1.4 F) Method Used: TAG Closed Cup

Explosive Limits: LEL: 1.2 UEL: 13

Autoignition Pt: ~ 465.00 C (869.0 F)

Suitable Extinguishing Media: Use dry chemical, carbon dioxide, or alcohol-resistant foam.

Unsuitable Extinguishing Media: Do not use water jet.

Fire Fighting Instructions: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. 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: Flash back possible over considerable distance. Vapors may travel to source of ignition and flash back. Container explosion may occur under fire conditions.

Hazardous Combustion Products: Carbon oxides, Nitrogen oxides.

6. Accidental Release Measures

Protective Precautions, Protective Equipment and Emergency Procedures: Use personal protective equipment. Evacuate personnel to safe areas. Avoid breathing vapors, mist or gas. Use explosion-proof equipment. Ensure adequate ventilation. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.

Environmental Precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

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). Evacuate area. Shut off all sources of ignition. Use nonsparking tools.

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. Take measures to prevent the build up of electrostatic charge. Ground and bond containers when transferring material. For precautions see section 2.2. Use only with adequate ventilation. Wash thoroughly after handling. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous.

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. Keep away from heat, sparks and flame.

8. Exposure Controls/Personal Protection

CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
67-64-1	Acetone	PEL: 1000 ppm	No data.	No data.
64-17-5	Ethyl alcohol	PEL: 1000 ppm	No data.	No data.
2530-83-8	3-Glycidoxypropyltrimethoxysilane	No data.	No data.	No data.
NA	Proprietary Ingredient (Chrome (III) Complex)	No data.	No data.	No data.

Personal Protective Equipment Symbols:

Respiratory Equipment (Specify Type):

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. If the respirator is the sole means of protection, use a full-face supplied air respirator. 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.

Eye Protection:

Wear chemical splash goggles. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses with side-shields conforming to EN166.

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: 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:

Wear appropriate protective clothing to prevent skin exposure. Impervious clothing. Flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

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.

Work/Hygienic/Maintenance Practices:

Wash thoroughly after handling. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and Chemical Properties

Physical States:	[] Gas [X] Liquid [] Solid
Appearance and Odor:	Black. solvent odor. Odor Threshold: Not determined
pH:	No data.
Melting Point:	-94.00 C (-137.2 F) - 137.00 C (278.6 F)
Boiling Point:	56.00 C (132.8 F)
Flash Point:	-17.00 C (1.4 F) TAG Closed Cup
Evaporation Rate:	No data.
Flammability (solid, gas):	No data available.
Explosive Limits:	LEL: 1.2 UEL: 13
Vapor Pressure:	Not determined

	Not determined
Vapor Density (vs. Air=1):	Not determined
Specific Gravity (Water=1):	~ 0.86
Density:	~ 0.79 G/CM3
Solubility in Water:	No data.
Solubility Notes:	No data available.
Saturated Vapor Concentration:	No data.
Octanol/Water Partition Coefficient:	Not determined
Autoignition Pt:	~ 465.00 C (869.0 F)
Decomposition Temperature:	No data.
Viscosity:	No data.
Minimum ignition energy:	Not determined

10. Stability and Reactivity

Stability:	Unstable [<input type="checkbox"/>] Stable [<input checked="" type="checkbox"/>]
Conditions To Avoid - Instability:	Ignition sources. Exposure to moist air or water, Heat, flames and sparks.
Incompatibility - Materials To Avoid:	Strong oxidizing agents, Strong reducing agents.
Hazardous Decomposition or Byproducts:	Carbon oxides.
Possibility of Hazardous Reactions:	Will occur [<input type="checkbox"/>] Will not occur [<input checked="" type="checkbox"/>]
Conditions To Avoid - Hazardous Reactions:	No data available.

11. Toxicological Information**Toxicological Information:**

CAS# 67-64-1:

1. Acute toxicity, TDLo, Oral, Human, 2857. MG/KG.

Result:

Behavioral: Coma.

Kidney, Ureter, Bladder: Other changes.

- "Toxicology of Drugs and Chemicals", Deichmann, W.B., Academic Press, Inc., New York, Vol/p/yr: -,64, 1969

2. Standard Draize Test, Eyes, Human, 500.0 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

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

Result:

Gastrointestinal: Gastritis.

Liver: Hepatitis (hepatocellular necrosis), diffuse.

Kidney, Ureter, Bladder: Interstitial nephritis.

- Prehled Prumyslove Toxikologie, Marhold, J., Organické Latky, Prague Czechoslovakia, Vol/p/yr: -,280, 1986

4. Standard Draize Test, Eyes, Human, 186300. ppm, Mild.

Result:

Gastrointestinal: Alteration in gastric secretion.

Gastrointestinal: Other changes.

- CRC Critical Reviews in Toxicology., CRC Press, Inc., 2000 Corporate Blvd., NW, Boca Raton, FL 33421, Vol/p/yr: 32,43, 2002

CAS# 64-17-5:

1. Acute toxicity, TDLo, Oral, Human, 3371. UL/KG.

Result:

Behavioral: Altered sleep time (including change in righting reflex).

Behavioral: Excitement.

Behavioral: Coma.

- Veterinary and Human Toxicology., American College of Veterinary and Comparative Toxicology, Publication Office, Comparative Toxicology, Manhattan, KS 66506, Vol/p/yr: 21,272, 1979

2. Acute toxicity, TDLo, Oral, Human, 700.0 MG/KG.

Result:

Behavioral: Changes in psychophysiological tests.

- Neurobehavioral Toxicology and Teratology., For publisher information, see NETEEC, Fayetteville, NY, Vol/p/yr: 8,77, 1986

CAS #	Hazardous Components (Chemical Name)	NTP	IARC	ACGIH	OSHA
67-64-1	Acetone	n.a.	n.a.	A4	n.a.
64-17-5	Ethyl alcohol	n.a.	1	A4	n.a.
2530-83-8	3-Glycidoxypropyltrimethoxysilane	n.a.	n.a.	n.a.	n.a.
NA	Proprietary Ingredient (Chrome (III) Complex)	n.a.	n.a.	n.a.	n.a.

12. Ecological Information

No data available.

Results of PBT and vPvB assessment: PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

Bioaccumulative Potential: No bioaccumulation is to be expected .

13. Disposal Considerations

Waste Disposal Method: Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dispose of contents/container in accordance with local/regional/national and international regulations.

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

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)
67-64-1	Acetone	No	Yes NA	No
64-17-5	Ethyl alcohol	No	No	No
2530-83-8	3-Glycidoxypropyltrimethoxysilane	No	No	No
NA	Proprietary Ingredient (Chrome (III) Complex)	No	No	Yes-Cat. N090 (5%)

EPA SARA Title III Section 313 Toxic Release Inventory.

This product contains a toxic chemical or chemicals subject to the reporting requirements of EPCRA Section 313 (40 CFR Section 372).

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 checked="" type="checkbox"/> Yes <input 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 type="checkbox"/> Yes <input checked="" 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 checked="" type="checkbox"/> Yes <input 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)	

California Proposition 65

WARNING

This product can expose you to chemicals including Acetaldehyde, which is 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 Methanol, 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
67-64-1	Acetone	TSCA: Inventory CA TAC, Title 8: Title 8
64-17-5	Ethyl alcohol	TSCA: Inventory CA TAC, Title 8: Title 8
2530-83-8	3-Glycidoxypropyltrimethoxysilane	TSCA: Inventory, 8A
NA	Proprietary Ingredient (Chrome (III) Complex)	TSCA: Inventory CA TAC, Title 8: TAC - Cat., Title 8 - Cat. NC TAP: Yes - Cat.

CAS #	Hazardous Components (Chemical Name)	International Regulatory Lists
67-64-1	Acetone	Japan ENCS: 2-542 Germany WHCS: 6: WGK 1 Switzerland Giftliste 1: G-1031 REACH: (P), 01-2119471330-49: Full
64-17-5	Ethyl alcohol	Japan ENCS: 5-153 Israel HSL: Cat. Germany WHCS: 96: WGK 1 Switzerland Giftliste 1: G-1158 REACH: (P), 01-2119457610-43: Full
2530-83-8	3-Glycidoxypropyltrimethoxysilane	Japan ENCS: 2-2962 Germany WHCS: 2622: WGK 2 REACH: (P), 01-2119513212-58: Full

Revision: 10/14/2024
Supersedes Revision: 08/02/2023

NA Proprietary Ingredient (Chrome (III) Complex)

Israel HSL: Cat.
Germany WHCS: : WGK 2
REACH: (P), (R): Full

16. Other Information

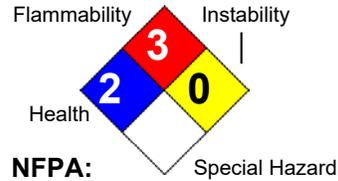
Revision Date: 10/14/2024

Previous revision: 08/02/2023

Hazard Rating System:

HEALTH		2
FLAMMABILITY		3
PHYSICAL		0
PPE		B

HMIS:



NFPA:

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.