

1. Product and Company Identification

Product Name: 1404K
Company Name: Hitachi Industrial Equipment & Solutions
America, LLC
2730 Greenleaf Avenue
Elk Grove Village, IL 60007
Phone Number: (866)583-0048
Web site address: <http://www.hitachi-america.us/ice/markings-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****Specific Target Organ Toxicity (single exposure), Category 3 - Respiratory irritation.****Skin Corrosion/Irritation, Category 2****Acute Toxicity: Oral, Category 4****GHS Signal Word:****Danger****GHS Hazard Phrases:**

H225 - Highly flammable liquid and vapor.
H302 - Harmful if swallowed.
H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H335 - May cause respiratory irritation.
H336 - May cause drowsiness or dizziness.

GHS Precautionary Phrases:

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/handling/ equipment.
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P261 - Avoid breathing 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.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P235 - Keep cool.

GHS Response Phrases:

P301+310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P330 - Rinse mouth.
P302+352 - IF ON SKIN: Wash with plenty of soap and water.
P303+361+353 - IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/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.
P312 - Call a POISON CENTER or doctor/physician if you feel unwell.

P332+313 - If skin irritation occurs, get medical advice/attention.

P337+313 - If eye irritation persists, get medical advice/attention.

P362 - Take off contaminated clothing and wash before re-use.

GHS Storage and Disposal Phrases:

P403+233 - Store container tightly closed in a cool and well-ventilated place.

P405 - Store locked up.

P501 - Dispose of contents/container to a licensed waste disposal service to dispose of materials in accordance with relevant (local, state, and environment regulations).

Other Hazards:

Harmful to aquatic life with long lasting effects. Toxic to aquatic life.

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	70.0 -80.0 %
9004-70-0	Nitrocellulose	< 5.0 %
67-63-0	Isopropyl alcohol	< 5.0 %
NA	(Trade Secret)	< 5.0 %

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:

Remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms call a POISON CENTER or doctor/physician.

In Case of Skin Contact:

Wash off with soap and plenty of water. Take off contaminated clothing and wash before re-use. If skin irritation or rash occurs, seek medical advice/attention.

In Case of Eye Contact:

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.

In Case of Ingestion:

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Wash out mouth with water provided person is conscious. Call a POISON CENTER or doctor/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 Prolonged exposure can cause: Nausea, Headache. Vomiting, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Indication of any immediate medical attention and special treatment needed:

No data available.

5. Fire Fighting Measures

Flash Pt:	> -6.80 C (19.8 F) Method Used: TAG Closed Cup
Explosive Limits:	LEL: No data. UEL: No data.
Autoignition Pt:	No data.
Suitable Extinguishing Media:	Use water spray, dry chemical, carbon dioxide, or alcohol-resistant foam. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective.
Unsuitable Extinguishing Media:	Do not use water jet.
Fire Fighting Instructions:	Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Specific Hazard(s): Flammable Liquid.
Flammable Properties and Hazards:	Carbon oxides, nitrogen oxides (NOx) Metal oxide/oxides.
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. Discharge into the environment must be avoided.
Steps To Be Taken In Case Material Is Released Or Spilled:	Stop leak if you can do it without risk. 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). Clean up spills immediately, observing precautions in the Protective Equipment section. Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. 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 with adequate ventilation. 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. User Exposure: Do not get in eyes, on skin, on clothing. Keep container tightly closed in a cool, dry, and well-ventilated place.
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. Storage class 510) Keep container closed. Keep away from heat, sparks, and open flame. Store away from heat and direct sunlight. Incompatible Materials: Avoid all contact with strong acids and strong bases, Oxidizing agents, Amines.
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.

9004-70-0	Nitrocellulose	No data.	No data.	No data.
67-63-0	Isopropyl alcohol	PEL: 400 ppm	TLV: 200 ppm STEL: 400 ppm	No data.
NA	(Trade Secret)	No data.	No data.	No data.

**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:

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

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:

No data available.

**Engineering Controls
(Ventilation etc.):**

Use with adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. Safety shower and eye bath. Use nonsparking tools. Use explosion-proof ventilation equipment. Mechanical exhaust required. Use process enclosure, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

**Work/Hygienic/Maintenance
Practices:**

Wash thoroughly after handling. Wash contaminated clothing before reuse. Ensure that the emergency eyewash station and safety shower are close to the working area.

**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. Ketone odor.
pH:	~ 2 - 5
Melting Point:	NA
Boiling Point:	No data.
Flash Pt:	> -6.80 C (19.8 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): 0.88
Solubility in Water: No data.
Octanol/Water Partition Coefficient: No data.
Autoignition Pt: No data.
Decomposition Temperature: No data.
Viscosity: No data.

10. Stability and Reactivity

Reactivity: No data available.
Stability: Unstable [] Stable [X]
Conditions To Avoid - Instability: Exposure to moisture. Conditions to Avoid: Heat, flames and sparks. Extremes of temperature and direct sunlight.
Incompatibility - Materials To Avoid: Oxidizing agents, Strong reducing agents, acids, Bases, Acid anhydrides, Halogens, Aluminum, Halogenated compounds, Acids.
Hazardous Decomposition or Byproducts: Carbon monoxide, Carbon dioxide, Metal oxide/oxides. nitrogen oxides. Hazardous decomposition products formed under fire conditions. -Carbon oxides.
Possibility of Hazardous Reactions: Will occur [] Will not occur [X]
Conditions To Avoid - Hazardous Reactions: No data available.

11. Toxicological Information

Toxicological Information: Acute toxicity.
Germ cell mutagenicity: No data available.
Skin Contact: Causes skin irritation.
Skin Absorption: May be harmful if absorbed through the skin.
Eye Contact: Causes eye irritation.
Inhalation: May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.
Ingestion: May be harmful if swallowed.

Kidneys. Liver. Cardiovascular system. Gastrointestinal System. Nerves. Behavioral: Somnolence (general depressed activity).

Ames test.
Bacteria - Salmonella typhimurium, Result: negative.
In vitro mammalian cell gene mutation test: (OECD Test Guideline 474 Mouse. male and female. Bone marrow.
Irritation or Corrosion: Skin corrosion/irritation.
Result: Tumorigenic:Tumors at site or application. (OECD Test Guideline 404) Serious eye damage/eye irritation Eyes -Rabbit
Irritating to eyes . Skin. Rabbit.
Result: Remarks: (anhydrous substance) (OECD Test Guideline 404 Serious eye damage/eye irritation: Eyes. No eye irritation . (OECD Test Guideline 405
Sensitization: No data available. Buehler Test: Species: Guinea pig. Result: negative. (OECD Test Guideline 406)
Chronic Toxicological Effects: Specific target organ toxicity - single exposure: May cause drowsiness or dizziness.
Specific target organ toxicity -repeated exposure: no data available. Carcinogen.
Result: Tumorigenic:Tumors at site or application. Inhalation: Oral. Acute inhalation

toxicity: Central nervous system.

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.
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. This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

CAS #	Hazardous Components (Chemical Name)	NTP	IARC	ACGIH	OSHA
78-93-3	Methyl ethyl ketone	n.a.	n.a.	n.a.	n.a.
9004-70-0	Nitrocellulose	n.a.	n.a.	n.a.	n.a.
67-63-0	Isopropyl alcohol	n.a.	3	A4	n.a.
NA	(Trade Secret)	n.a.	n.a.	n.a.	n.a.

12. Ecological Information

General Ecological Information: (US-EPA)

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

Persistence and Degradability: No data available. Biodegradability aerobic -Exposure time 21 d Result: 95 % -Readily biodegradable.

(OECD Test Guideline 301E)

Bioaccumulative Potential: No data available. No bioaccumulation is to be expected (log Pow <= 4).

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: APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION.
Observe all federal, state, and local environmental regulations. Dispose of as unused product.

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: 1210

Packing Group: II



LAND TRANSPORT (Canadian TDG):

TDG Shipping Name:

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

AIR TRANSPORT (ICAO/IATA):

ICAO/IATA Shipping Name: UN Number: 2556
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)
78-93-3	Methyl ethyl ketone	No	Yes 5000 LB	No
9004-70-0	Nitrocellulose	No	No	No
67-63-0	Isopropyl alcohol	No	No	Yes (5%)
NA	(Trade Secret)	No	No	No

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 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 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)	

CAS # Hazardous Components (Chemical Name)

Other US EPA or State Lists

78-93-3 Methyl ethyl ketone	TSCA: Yes - Inventory; CA PROP.65: No; CA TAC, Title 8: TAC: Cat. IIa, Title 8; NC TAP: Yes: NC TAP
9004-70-0 Nitrocellulose	TSCA: Yes - Inventory; CA PROP.65: No; CA TAC, Title 8: No; NC TAP: No
67-63-0 Isopropyl alcohol	TSCA: Yes - Inventory; CA PROP.65: No; CA TAC, Title 8: TAC: Cat. IIb, Title 8; NC TAP: No
NA (Trade Secret)	TSCA: Yes - Inventory; CA PROP.65: No; CA TAC, Title 8: No; NC TAP: No

CAS # Hazardous Components (Chemical Name)

International Regulatory Lists

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: WGK 1; Switzerland Giftliste 1: Yes - G-2429; Switzerland INNS: No; REACH: Yes - 01-2119457290-43: Full, (P); Rotterdam: No
9004-70-0 Nitrocellulose	Canadian DSL: Yes; Canadian NDSL: No; Mexico INSQ: Yes; Australia ICS: Yes; New Zealand IOC: Yes; Japan ENCS: Yes - 8-176; Japan ISHL: No; Israel HSL: No; Germany WHCS: No; Switzerland Giftliste 1: Yes - G-8365; Switzerland INNS:

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67-63-0 Isopropyl alcohol

No; REACH: Yes - (P); Rotterdam: No
Canadian DSL: Yes; Canadian NDSL: No; Mexico INSQ: Yes - 1219; Australia ICS: Yes; New Zealand IOC: Yes; Japan ENCS: Yes - 2-207; Japan ISHL: Yes - 2-(8)-319; Israel HSL: Yes - Cat.; Germany WHCS: Yes - 135: WGK 1; Switzerland Giftliste 1: Yes - G-1712; Switzerland INNS: No; REACH: Yes - 01-2119457558-25: Full, (P); Rotterdam: No
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: No; Rotterdam: No

NA (Trade Secret)

16. Other Information

Revision Date: 04/27/2020

Additional Information About This Product: No data available.

This Product:

Company Policy or

Disclaimer:

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.

Hitachi Contact Information:

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