

according to Regulation (EC) No. 1907/2006 as amended by (EC) No. 2020/878 and US OSHA HCS 2015

Section 1. Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product Identifiers:

Product Name: JP-E410, 2410E

1.2 Relevant identified uses of the substance or mixture and uses advised against:

Relevant identified uses: Printing ink

1.3 Details of the Supplier of the Safety Data Sheet:

Company Name: Hitachi Industrial Equipment & Solutions America,
LLC **Phone Number:**
2730 Greenleaf Avenue (866)583-0048
Elk Grove Village, IL 60007 United States of America

Web site address: <https://www.hitachi-iesa.com/industrial-markin-g-and-coding> (980)500-7144

Information: Christian Krzykwa

1.4 Emergency telephone number:

Emergency Contact: Chemtrec (800)424-9300

Section 2. Hazards Identification

2.1 Classification of the Substance or Mixture:

Flammable Liquids, Category 2

Serious Eye Damage/Eye Irritation, Category 2

Specific Target Organ Toxicity (single exposure), Category 3

2.2 Label Elements:



GHS Signal Word: **Danger**

Hazard-determining components of labelling:

Acetone

GHS Hazard Phrases:

H225 - Highly flammable liquid and vapor.

H319 - Causes serious eye irritation.

H335 - May cause respiratory irritation.

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// 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.

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:

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.

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.

P405 - Store locked up.

P501 - Dispose of contents/container in accordance with local regulations.

UFI:

2.3 Adverse Human Health Hazards not otherwise classified (HNOC) or not covered by GHS -none. **Hazards not Effects and Symptoms:** otherwise classified (HNOC) or not covered by GHS.

Repeated exposure may cause skin dryness or cracking.

2.3.1 Inhalation: Causes respiratory tract irritation. Vapors may cause dizziness or suffocation.

2.3.2 Skin Contact: May cause skin irritation.

2.3.3 Eye Contact: Causes serious eye irritation.

2.3.4 Ingestion: Harmful if swallowed.

Section 3. Composition/Information on Ingredients

CAS #	Hazardous Components (Chemical Name)/ REACH Registration No.	Concentration	EC No./ EC Index No.	GHS Classification
64-17-5	Ethyl alcohol 01-2119457610-43	50.0 -60.0 %	200-578-6 603-002-00-5	Flam. Liq. 2: H225
67-64-1	Acetone 01-2119471330-49	20.0 -30.0 %	200-662-2 606-001-00-8	Flam. Liq. 2: H225 Eye Damage 2: H319 STOT (SE) 3: H336 EUH066

Section 4. First Aid Measures

4.1 Description of First Aid Measures: 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 not breathing, give artificial respiration. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention. If experiencing respiratory symptoms call a POISON CENTER or doctor/physician. Rescuers should put on appropriate protective gear. Remove from area of exposure. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Keep victim warm. Get immediate medical attention. Remove contaminated clothing. Wash skin with soap and water. Get medical attention. Keep victim under observation.

In Case of Skin Contact: Wash with soap and water. Get medical attention if irritation develops or persists.

Contact: Remove contaminated clothing and shoes.

In Case of Eye Contact: Immediately flush eyes with plenty of water. Get medical attention, if irritation persists.

Contact: Remove contact lenses, if present and easy to do. Continue rinsing.

In Case of Ingestion: Wash out mouth with water provided person is conscious. Remove person to fresh air

and keep comfortable for breathing. If swallowed, do NOT induce vomiting. Give victim a glass of water or milk. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person. If swallowed, induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately. If vomiting occurs naturally, have victim lean forward. Never give anything by mouth to an unconscious person.

4.2 Important Symptoms and Effects, Both Acute and Delayed: The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed: No data available.

Section 5. Fire Fighting Measures

5.1 Suitable Extinguishing Media: In case of fire, use water, dry chemical, chemical foam, or alcohol-resistant foam.

Unsuitable Extinguishing Media: Do NOT use straight streams of water.

5.2 Flammable Properties and Hazards: No data available.

Hazardous Combustion Products: Carbon oxides, Nitrogen oxides, Hazardous decomposition products formed under fire conditions.

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

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

Autoignition Pt: No data.

5.3 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. Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Section 6. Accidental Release Measures

6.1 Protective Precautions, Protective Equipment and Emergency Procedures: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. For personal protection see section 8. Evacuate personnel to safe areas.

6.2 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.

6.3 Methods and Material For Containment and Cleaning Up: Stop leak if you can do it without risk. Use clean non-sparking tools to collect material and place it into loosely covered plastic containers for later disposal. Prevent entry into waterways, sewers, basements or confined areas. Cover with dry-lime, sand, or soda ash. Evacuate personnel to safe areas. 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).

Section 7. Handling and Storage

- 7.1 Precautions To Be Taken in Handling:** Avoid prolonged or repeated exposure. Avoid release to the environment. Avoid use in confined spaces. Use explosion-proof electrical/ventilating/lighting/.../equipment. ... other specified by the manufacturer/supplier or the competent authority. Use spark-proof tools and explosion proof equipment. Avoid contact with skin and eyes. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. For precautions see section 2. Wash thoroughly after handling. Avoid inhalation of vapor or mist. Avoid generating dusty conditions.
- 7.2 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. Store container tightly closed in a cool and well-ventilated place. Store away from heat and direct sunlight. Store away from combustibles/other incompatible materials specified by the manufacturer/supplier or the competent authority. Store away from sparks, flames. Store protected from moisture.
- Other Precautions:** Apart from the uses mentioned in section 1 no other specific uses are stipulated.

Section 8. Exposure Controls/Personal Protection

8.1 Exposure Parameters:

CAS #	Chemical Name	Jurisdiction	Recommended Exposure Limits	Notations
64-17-5	Ethyl alcohol	ACGIH TLV	TLV: 1000 ppm STEL: 1000 ppm	
		France VL	TWA: 1900 mg/m3 (1000 ppm) STEL: 9500 mg/m3 (5000 ppm)	
		OSHA PELs	PEL: 1000 ppm	
		Britain EH40	TWA: 1920 mg/m3 (1000 ppm) STEL: ()	
67-64-1	Acetone	ACGIH TLV	TLV: 250 ppm STEL: 500 ppm	
		Europe	TWA: 1210 mg/m3 (500 ppm)	
		France VL	TWA: 1210 mg/m3 (500 ppm) STEL: 2420 mg/m3 (1000 ppm)	
		OSHA PELs	PEL: 1000 ppm	
		Britain EH40	TWA: 1210 mg/m3 (500 ppm) STEL: 3620 mg/m3 (1500 ppm)	

8.2 Exposure Controls:

- 8.2.1 Engineering Controls (Ventilation etc.):** Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

8.2.2 Personal protection equipment:

Personal Protective Equipment Symbols:



Eye Protection:

Face shield and safety glasses. 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. Full contact.

Material: butyl-rubber Minimum layer thickness: 0.3 mm Break through time: 480 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. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

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). Respiratory:

8.2.3 Environmental

Exposure Controls:

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

Exposure Scenarios: No data available.

Section 9. Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Physical States:	[] Gas [X] Liquid [] Solid		
Appearance and Odor:	Reddish. alcohol-like.		
pH:	No data.		
Melting Point:	-114.10 C (-173.4 F) - -88.88 C (-128.0 F)		
Boiling Point:	38.00 C (100.4 F) - -100.00 C (-148.0 F)		
Flash Pt:	> -17.00 C (1.4 F) Method Used: TAG Closed Cup		
Evaporation Rate:	1.9		
Saturated Vapor Concentration:	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.
Solubility in Water:	No data.
Octanol/Water Partition Coefficient:	No data.
Autoignition Pt:	No data.
Decomposition Temperature:	No data.
Viscosity:	No data.
Explosive Properties:	No data available.
Oxidizing Properties:	No data available.

9.2 Other Information

9.2.1 Information with regard to physical hazard classes

Information with regard to primary physical hazard:

9.2.2 Other safety characteristics

Section 10. Stability and Reactivity

10.1 Reactivity:	No data available.
10.2 Stability:	Unstable [] Stable [X]
10.3 Conditions To Avoid - Hazardous Reactions:	No data available. Vapors may form explosive mixture with air.
Possibility of Hazardous Reactions:	Will occur [] Will not occur [X]
10.4 Conditions To Avoid - Instability:	Heat, flames and sparks.
10.5 Incompatibility - Materials To Avoid:	Bases, Oxidizing agents, Reducing agents, Acetone reacts violently with phosphorous oxychloride.
10.6 Hazardous Decomposition or Byproducts:	No data available. In the event of fire: see section 5. Hazardous decomposition products formed under fire conditions. -Carbon oxides.

Section 11. Toxicological Information

11.1 Information on Toxicological Effects:	Acute toxicity. No data available. Inhalation: Dermal. Germ cell mutagenicity: Reproductive toxicity. Aspiration hazard: Behavioral: Tremor. Behavioral: Headache. Ingestion may cause gastrointestinal irritation. Nausea, Vomiting, Diarrhea.
Irritation or Corrosion:	Skin corrosion/irritation. No data available. Skin. Rabbit. Result: Mild skin irritation -24 h. Eyes.
Sensitization:	No data available. Species: Guinea pig. Result: Does not cause skin sensitisation.
Chronic Toxicological Effects:	Specific target organ toxicity -single exposure (Globally Harmonized System) No data available. Specific target organ toxicity -repeated exposure: no data available. Specific target organ toxicity - single exposure: May cause drowsiness or dizziness.
Carcinogenicity/Other	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.

Information: 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
64-17-5	Ethyl alcohol	n.a.	1	Unknown	n.a.
67-64-1	Acetone	n.a.	n.a.	Unknown	n.a.

Section 12. Ecological Information

- 12.1 Toxicity:** No data available.
Toxicity to algae: Remarks: no data available.
- 12.2 Persistence and Degradability:** No data available. Biodegradability: Result: 91 % Readily biodegradable. (OECD Test Guideline 301B)
- 12.3 Bioaccumulative Potential:** No data available. Does not bioaccumulate.
- 12.4 Mobility in Soil:** No data available.
- 12.5 Results of PBT and vPvB assessment:** PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.
- 12.6 Other adverse effects:** No data available.

Section 13. Disposal Considerations

- 13.1 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: Dispose of as unused product.

Section 14. Transport Information

14.1 LAND TRANSPORT (US DOT):

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



14.1 LAND TRANSPORT (Canadian TDG):

TDG Shipping Name: Printing ink.

14.1 LAND TRANSPORT (European ADR/RID):

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

14.2 MARINE TRANSPORT (IMDG/IMO):

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

14.3 AIR TRANSPORT (ICAO/IATA):

ICAO/IATA Shipping Name: Printing ink.
UN Number: UN1210 **Packing Group:** II
Hazard Class: 3 - FLAMMABLE LIQUID

Section 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)
64-17-5	Ethyl alcohol	No	No	No
67-64-1	Acetone	No	Yes NA	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 type="checkbox"/> Yes <input checked="" 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 type="checkbox"/> Yes <input checked="" 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 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)	Other US EPA or State Lists	International Regulatory Lists
64-17-5	Ethyl alcohol	TSCA: Inventory CA TAC, Title 8: Title 8	Japan ENCS: 5-153 Israel HSL: Cat. Germany WHCS: 96: WGK 1 Switzerland Giftliste 1: G-1158 REACH: 01-2119457610-43: Full, (P)
67-64-1	Acetone	TSCA: Inventory CA TAC, Title 8: Title 8	Japan ENCS: 2-542 Germany WHCS: 6: WGK 1 Switzerland Giftliste 1: G-1031 REACH: 01-2119471330-49: Full, (P)

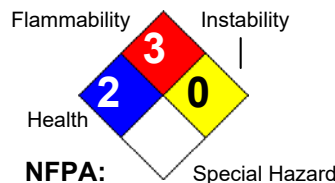
Section 16. Other Information

Revision Date: 02/28/2023

Hazard Rating System:

HEALTH		2
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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