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

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

1.1 Product Identifiers:

Product Name: 3430E

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
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
(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.
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// 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.
P370+378 - In case of fire, use water spray, dry chemical, carbon dioxide, or alcohol resistant foam to extinguish.

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 Effects and Symptoms: Hazards not otherwise classified (HNOC) or not covered by GHS -none. Hazards not otherwise classified (HNOC) or not covered by GHS.

Repeated exposure may cause skin dryness or cracking.

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: 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.

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: Use water spray, dry chemical, carbon dioxide, or alcohol-resistant foam.

5.2 Flammable Properties and Hazards: No data available.

No data available.

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: Wear self contained breathing apparatus for fire fighting if necessary.
Further information. Use water spray to cool unopened containers.

Section 6. Accidental Release Measures

6.1 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. 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.

6.3 Methods and Material For Containment and Cleaning Up: 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 contact with skin and eyes. Avoid inhalation of vapor or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. For precautions see section 2. Use explosion-proof equipment.

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. Storage class 510)

Other Precautions: Apart from the uses mentioned in section 1 no other specific uses are stipulated. 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)	

67-64-1 Acetone (continued)	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:	Blue. alcohol-like.
pH:	No data.
Melting Point:	No data.
Boiling Point:	No data.
Flash Pt:	-17.00 C (1.4 F) Method Used: TAG Closed Cup
Evaporation Rate:	No data.

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.	
	No data.	
Vapor Density (vs. Air = 1):	No data.	
Specific Gravity (Water = 1):	No data.	
Density:	~ .98 g/mL	
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.
Serious eye damage/eye irritation: Eyes. Result: Eye irritation - 24 h.

Sensitization: No data available. Species: Guinea pig.
Result: Does not cause skin sensitisation.

Chronic Toxicological Effects: 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 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.
UN Number: UN1210 **Packing Group:** II
Hazard Class: 3 - FLAMMABLE LIQUID **TDG Classification:**

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
Marine Pollutant: Yes

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:

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

CAS #	Hazardous Components (Chemical Name)	Canadian NPRI	Canadian Toxic	Canadian DSL
64-17-5	Ethyl alcohol	Yes: Part 5		Yes
67-64-1	Acetone	No	No	Yes

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)

Regulatory Information: 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:
Christian Krzykwa
(704) 972-9887.

Section 16. Other Information

Revision Date: 12/28/2022

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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