

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:** S2410**1.2 Relevant identified uses of the substance or mixture and uses advised against:****Relevant identified uses:** Printing Ink Related Material**1.3 Details of the Supplier of the Safety Data Sheet:****Company Name:** Hitachi Industrial Equipment & Solutions America, LLC
2730 Greenleaf Avenue Elk **Phone Number:**
Grove Village, IL 60007 (866)583-0048**Web site address:** <https://www.hitachi-iesa.com/industrial-marking-and-coding>**Information:** Christian Krzykwa (980)500-7144**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****Skin Corrosion/Irritation, Category 3****Serious Eye Damage/Eye Irritation, Category 2****Specific Target Organ Toxicity (single exposure), Category 3****Aquatic Toxicity (Acute), 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 No data available.

Effects and Symptoms:

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	30.0 -40.0 %	200-578-6 603-002-00-5	Flam. Liq. 2: H225
67-64-1	Acetone 01-2119471330-49	60.0 -70.0 %	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:

In Case of Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention/advice if you feel unwell. If experiencing respiratory symptoms call a POISON CENTER or doctor/physician. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. Keep victim under observation.

In Case of Skin Contact: Remove/Take off immediately all contaminated clothing. Wash off with soap and plenty of water. Get medical aid if irritation develops or persists.

In Case of Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes. Get immediate medical attention. Remove contact lenses, if present and easy to do. Continue rinsing.

In Case of Ingestion: Remove person to fresh air and keep comfortable for breathing. If swallowed, do not induce vomiting unless directed to do so by medical personnel. If swallowed, induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately. Never give anything by mouth to an unconscious person. If vomiting occurs naturally, have victim lean forward.

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.
- 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:** Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Containers can build up pressure if exposed to heat (fire). Containers may explode if exposed to fire.

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. Material: butyl-rubber Minimum layer thickness: 0.3 mm Break through time: 480 min. Choose body protection according to the amount and concentration of the dangerous substance at the work place. Material: Nitrile rubber. Minimum layer thickness: 0.4 mm.
- 6.2 Environmental Precautions:** Discharge into the environment must be avoided. Dispose of as unused product. Dispose of contents/container to a licensed waste disposal company in accordance with all applicable regulations in the area of use. Use personal protective equipment as required. Soak up with inert absorbent material and dispose of as hazardous waste.
- 6.3 Methods and Material For Containment and Cleaning Up:** Wear appropriate protective clothing to minimize contact with skin. Use proper personal protective equipment as indicated in Section 8. Use personal protective equipment. Use clean non-sparking tools to collect material and place it into loosely covered plastic containers for later disposal. 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). Evacuate personnel to safe areas.

Section 7. Handling and Storage

- 7.1 Precautions To Be Taken in Handling:** Avoid prolonged or repeated exposure. 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. 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 protected from moisture. Store away from heat and direct sunlight. Store away from sparks, flames. Store away from combustibles/other incompatible materials specified by the manufacturer/supplier or the competent authority.

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.): Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local explosion-proof ventilation to keep airborne levels to acceptable levels. Use nonsparking tools. Discharge into the environment must be avoided.

8.2.2 Personal protection equipment:

Personal Protective Equipment Symbols:



Eye Protection:

Tightly fitting safety goggles. 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.

Protective Gloves:

Wear appropriate protective gloves to prevent skin exposure. Material: butyl-rubber Minimum layer thickness: 0.3 mm Break through time: 10 min. Material: Nitrile rubber. Minimum layer thickness: 0.4 mm. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. 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. 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.

Other Protective Clothing:

No data available.

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. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

Work/Hygienic/Maintenance Practices: Avoid contact with skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and immediately after handling the product.
No data available.

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: Pink to orange.
acetone-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): ~ 0.800

Solubility in Water: No data.

Octanol/Water Partition Coefficient: No data.

Autoignition Pt: No data.

Decomposition Temperature: No data.

Viscosity: No data.

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.

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

10.4 Conditions To Avoid - Instability: Extremes of temperature and direct sunlight. moist air, flames and sparks.

10.5 Incompatibility - Materials To Avoid: Alkali metals, Oxidizing agents, Strong acids, Strong bases.

10.6 Hazardous Decomposition or Byproducts: nitrogen oxides. Carbon oxides.

Section 11. Toxicological Information

11.1 Information on Toxicological Effects: No data available.
Irritation or Corrosion: No data available.

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: If released to soil, relatively rapid biodegradation should also occur. If released to the atmosphere, it is degraded rapidly by reaction with photochemically produced hydroxyl radicals (typical half-life of 32 hr).

12.2 Persistence and Degradability: No data available.

12.3 Bioaccumulative Potential: Does not bioaccumulate.

12.4 Mobility in Soil: No data available.

12.5 Results of PBT and vPvB assessment: No data available.

12.6 Other adverse effects: No data available.

Section 13. Disposal Considerations

13.1 Waste Disposal Method: Contact a licensed professional waste disposal service to dispose of this material. Dispose of as unused product. Discharge into the environment must be avoided. Dispose of contents/container in accordance with all relevant regulations applicable in the area of use.

Section 14. Transport Information

14.1 LAND TRANSPORT (US DOT):

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



14.1 LAND TRANSPORT (Canadian TDG):

TDG Shipping Name: Printing ink related material.

14.1 LAND TRANSPORT (European ADR/RID):

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

14.2 MARINE TRANSPORT (IMDG/IMO):

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

14.3 AIR TRANSPORT (ICAO/IATA):

ICAO/IATA Shipping Name: Printing ink related material.
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 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	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)

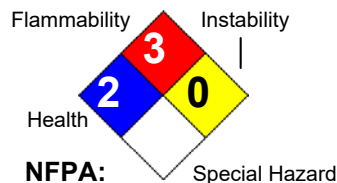
Section 16. Other Information

Revision Date: 03/18/2022

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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