This SDS complies with the US OSHA HCS 2012.

1. Product and Company Identification

Product Name: S2410

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 related material for industrial inkjet printers.

2. Hazards Identification

Flammable Liquids, Category 2
Serious Eye Damage/Eye Irritation, Category 2
Specific Target Organ Toxicity (single exposure), Category 3
Skin Corrosion/Irritation, Category 3
Aquatic Toxicity (Acute), Category 3

GHS Signal Word: **Danger**

GHS Hazard Phrases:
H225 - Highly flammable liquid and vapor.
H319 - Causes serious eye irritation.
H335 - May cause respiratory irritation.
H402 - Harmful to aquatic life.

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 well-ventilated place.
P405 - Store locked up.
P501 - Dispose of contents/container in accordance with local regulations.

Emergency Overview:

3. Composition/Information on Ingredients

CAS #	Hazardous Components (Chemical Name)	Concentration
64-17-5	Ethyl alcohol	20.0 -30.0 %
67-64-1	Acetone	70.0 -80.0 %

4. First Aid Measures

Emergency and First Aid Procedures:

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.

5. Fire Fighting Measures

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

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

Autoignition Pt: No data.

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.

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.

Flammable Properties and Hazards: No data available.

Hazardous Combustion Products: Carbon oxides, nitrogen oxides.

6. Accidental Release Measures

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.

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.

Steps To Be Taken In Case Material Is Released Or Spilled: 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.

7. Handling and Storage

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.

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.

8. Exposure Controls/Personal Protection

CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
64-17-5	Ethyl alcohol	PEL: 1000 ppm	TLV: 1000 ppm STEL: 1000 ppm	No data.
67-64-1	Acetone	PEL: 1000 ppm	TLV: 250 ppm STEL: 500 ppm	No data.

Personal Protective Equipment Symbols:

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.

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.

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.

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.

9. Physical and Chemical Properties

Physical States: [ ] Gas [X] Liquid [ ] Solid

Appearance and Odor: Pink to orange and brown. 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 Point: > -17.00 C (1.4 F) TAG Closed Cup

Evaporation Rate: 1.9

Flammability (solid, gas): No data available.

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

Vapor Pressure: No data.

Vapor Density (vs. Air=1): No data.

Specific Gravity (Water=1): ~ 0.800

Solubility in Water: No data.

Saturated Vapor Concentration: No data.

Octanol/Water Partition Coefficient: No data.

Autoignition Pt: No data.

Decomposition Temperature: No data.

Viscosity: No data.

10. Stability and Reactivity

Stability: Unstable [ ] Stable [X]

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

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

Hazardous Decomposition or Byproducts: nitrogen oxides. 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:

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# 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., Organicke 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

Irritation or Corrosion: No data available.

CAS #	Hazardous Components (Chemical Name)	NTP	IARC	ACGIH	OSHA
64-17-5	Ethyl alcohol	n.a.	1	A4	n.a.
67-64-1	Acetone	n.a.	n.a.	A4	n.a.

12. Ecological Information

General Ecological Information: 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).

Bioaccumulative Potential: Does not bioaccumulate.

13. Disposal Considerations

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.

14. Transport Information

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

LAND TRANSPORT (Canadian TDG):

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

LAND TRANSPORT (European ADR/RID):

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

MARINE TRANSPORT (IMDG/IMO):

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

AIR TRANSPORT (ICAO/IATA):

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

CAS #	Hazardous Components (Chemical Name)	Other US EPA or State Lists
64-17-5	Ethyl alcohol	TSCA: Inventory CA TAC, Title 8: Title 8
67-64-1	Acetone	TSCA: Inventory CA TAC, Title 8: Title 8

CAS #	Hazardous Components (Chemical Name)	International Regulatory Lists
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
67-64-1	Acetone	Japan ENCS: 2-542 Germany WHCS: 6: WGK 1 Switzerland Giftliste 1: G-1031 REACH: (P), 01-2119471330-49: Full

16. Other Information

Revision Date: 08/26/2024

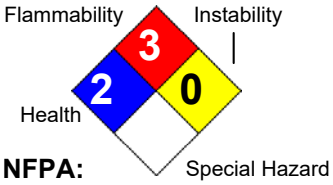
Previous revision: 10/05/2023

Hazard Rating System:

HMIS:

HEALTH	2
FLAMMABILITY	3
PHYSICAL	0
PPE	B

NFPA:



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