

1. Product and Company Identification

Product Name: 4413Tci, JP-T413ci
Company Name: Hitachi Industrial Equipment & Solutions **Phone Number:**
America, LLC (866)583-0048
2730 Greenleaf Avenue
Elk Grove Village, IL 60007

Web site address: <https://www.hitachi-iesa.com/industrial-marking-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
Skin Corrosion/Irritation, Category 3
Serious Eye Damage/Eye Irritation, Category 2
Carcinogenicity, Category 1B
Toxic To Reproduction, Category 2
Specific Target Organ Toxicity (single exposure), Category 3 - Respiratory irritation, Narcotic effects, Respiratory irritation.
Aquatic Toxicity (Acute), Category 3
Aquatic Toxicity (Chronic), Category 3

**GHS Signal Word:****Danger****GHS Hazard Phrases:**

H225 - Highly flammable liquid and vapor.
H316 - Causes mild skin irritation.
H319 - Causes serious eye irritation.
H335 - May cause respiratory irritation.
H336 - May cause drowsiness or dizziness.
H350 - May cause cancer .
H361 - Suspected of damaging fertility or the unborn child .
H412 - Harmful to aquatic life with long lasting effects.
H3UN - 5.00 % of the mixture consists of an ingredient or ingredients of unknown acute toxicity.

GHS Precautionary Phrases:

P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
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.
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.

P281 - Use personal protective equipment as required.

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.

P308+313 - IF exposed or concerned: Get medical attention/advice.

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.

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 a licensed waste disposal company in compliance with local and state regulations.

Emergency Overview:

Potential Health Effects (Acute and Chronic):

Hazards not otherwise classified (HNOC) or not covered by GHS -none. Hazards not otherwise classified (HNOC) or not covered by GHS. May form explosive peroxides.

Repeated exposure may cause skin dryness or cracking.

Chronic: Not available.

Inhalation:

Harmful if inhaled. Causes chemical burns to the respiratory tract. Inhalation may be fatal as a result of spasm, inflammation, edema of the larynx and bronchi, chemical pneumonitis and pulmonary edema. May cause burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting.

Skin Contact:

Harmful if absorbed through the skin. Causes skin burns.

Eye Contact:

Causes eye burns.

Ingestion:

Harmful if swallowed. Causes gastrointestinal tract burns.

3. Composition/Information on Ingredients

CAS #	Hazardous Components (Chemical Name)	Concentration
107-87-9	2-Pentanone	50.0 -60.0 %
64-17-5	Ethyl alcohol	10.0 -20.0 %
108-10-1	Methyl isobutyl ketone	1.0 -10.0 %
67-63-0	Isopropyl alcohol	< 5.0 %
NA	(Trade Secret)	< 5.0 %
3109-63-5	Tetrabutylammonium hexafluorophosphate	< 5.0 %
108-88-3	Toluene	< 1.0 %
NA	(Trade Secret)	< 1.0 %

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:	If breathed in, move person into fresh air. Consult a physician. Get medical aid immediately. Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen.
In Case of Skin Contact:	Wash off with soap and plenty of water. Consult a physician. Get medical aid immediately. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
In Case of Eye Contact:	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.
In Case of Ingestion:	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician. Get medical aid immediately. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.
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
Indication of any immediate medical attention and special treatment needed:	No data available.
Note to Physician:	Treat symptomatically and supportively.

5. Fire Fighting Measures

Flash Pt:	> 7.00 C (44.6 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. Dry powder. Dry sand, Use foam, dry chemical, or carbon dioxide.
Unsuitable Extinguishing Media:	Do not use water jet.
Fire Fighting Instructions:	Wear self contained breathing apparatus for fire fighting if necessary. Further information. Use water spray to cool unopened containers. As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.
Flammable Properties and Hazards:	Carbon oxides, No data available.
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.
Steps To Be Taken In Case Material Is Released Or Spilled:	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). Use proper personal protective equipment as indicated in Section 8. Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container.

7. Handling and Storage

Precautions To Be Taken in Handling:	Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. 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. Do not get in eyes, on skin, or on clothing. Use only in a chemical fume hood.
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 under inert gas. Storage class (TRGS 510): Flammable liquids Recommended storage temperature: 2 -8 - 8 deg.C. Storage class 510) Handle and store under inert gas. Hygroscopic. Storage class (TRGS 510): 3: Flammable liquids Store in a cool, dry place. Store in a tightly closed container.
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.

8. Exposure Controls/Personal Protection

CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
107-87-9	2-Pentanone	PEL: 200 ppm	TLV: 200 ppm STEL: 150 ppm	No data.
64-17-5	Ethyl alcohol	PEL: 1000 ppm	TLV: 1000 ppm STEL: 1000 ppm	No data.
108-10-1	Methyl isobutyl ketone	PEL: 100 ppm	TLV: 20 ppm STEL: 75 ppm	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.
3109-63-5	Tetrabutylammonium hexafluorophosphate	No data.	No data.	No data.
108-88-3	Toluene	PEL: 200 ppm STEL: 500 ppm/(10min) CEIL: 300 ppm	TLV: 20 ppm	No data.
NA	(Trade Secret)	No data.	No data.	No data.

**Personal Protective
Equipment Symbols:****Respiratory Equipment
(Specify Type):**

Respiratory: 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). Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

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). Not available.

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. Material: butyl-rubber Minimum layer thickness: 0.3 mm Break through time: ? min.

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. Material: butyl-rubber Minimum layer thickness: 0.3 mm Break through time: 175 min.

Full contact.

Wear appropriate protective gloves to prevent skin exposure.

Other Protective Clothing:

Complete suit protecting against chemicals. Flame retardant antistatic protective clothing. Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Wear appropriate protective clothing to prevent skin exposure.

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

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

**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. solvent odor.
pH:	~ 4.6
Melting Point:	-89.50 C (-129.1 F) - 246.00 C (474.8 F)
Boiling Point:	No data. - 118.00 C (244.4 F)
Flash Pt:	> 7.00 C (44.6 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):	No data.
Density:	~ 0.807 g/mL
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.

Explosive Properties: No data available.
Oxidizing Properties: No data available.

Information with regard to primary physical hazard:

10. Stability and Reactivity

Reactivity:	No data available.
Stability:	Unstable [<input type="checkbox"/>] Stable [<input checked="" type="checkbox"/>]
Conditions To Avoid - Instability:	Heat, flames and sparks. Heat, Reacts with air to form peroxides. Conditions to Avoid: Incompatible materials, Exposure to moist air or water.
Incompatibility - Materials To Avoid:	Reducing agents, Acid anhydrides, Aluminum, Halogenated compounds, Acids. Strong oxidizing agents.
Hazardous Decomposition or Byproducts:	No data available. In the event of fire: see section 5. Hazardous decomposition products formed under fire conditions. -Carbon oxides. Hydrogen cyanide, Carbon monoxide, oxides of nitrogen, oxides of phosphorus, Carbon dioxide, hydrogen fluoride gas. Phosphoric acid, Ammonia.
Possibility of Hazardous Reactions:	Will occur [<input type="checkbox"/>] Will not occur [<input checked="" type="checkbox"/>]
Conditions To Avoid - Hazardous Reactions:	Vapors may form explosive mixture with air. No data available.

11. Toxicological Information

Toxicological Information: Acute toxicity.

Germ cell mutagenicity: No data available.
In vitro mammalian cell gene mutation test: Mouse. lymphoma cells. Result: negative.
Reproductive toxicity. Aspiration hazard: Inhalation: Dermal. Developmental Toxicity. Inhalation. Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Effects on Embryo or Fetus: Fetal death.
Specific Developmental Abnormalities: Central nervous system. Specific Developmental Abnormalities: Musculoskeletal system. Specific Developmental Abnormalities: Cardiovascular (circulatory) system.
Behavioral: Somnolence (general depressed activity).

Ames test.

Bacteria - Salmonella typhimurium, (OECD Test Guideline 474 male and female. Bone marrow. Epidemiology: Teratogenicity: No data available.

Reproductive Effects: Mutagenicity: Neurotoxicity: Other Studies:

CAS# 67-63-0:

1. Acute toxicity, TDLo, Oral, Human, 14432. MG/KG.

Result:

Behavioral: Coma.

Vascular: BP lowering not characterized in autonomic section.

Lungs, Thorax, or Respiration: Dyspnea.

- New England Journal of Medicine., Massachusetts Medical Soc., 10 Shattuck St., Boston, MA 02115, Vol/p/yr: 277,699, 1967

2. Acute toxicity, TDLo, Oral, Human, 223.0 MG/KG.

Result:

Behavioral: Hallucinations, distorted perceptions.

Cardiac: Pulse rate.

Vascular: BP lowering not characterized in autonomic section.

- Journal of Laboratory and Clinical Medicine., C.V. Mosby Co., 11830 Westline Industrial Dr., St. Louis, MO 63146, Vol/p/yr: 12,326, 1927

3. Acute toxicity, LDLO, Oral, Human, 3570. MG/KG.

Result:

Behavioral: Coma.

Lungs, Thorax, or Respiration: Respiratory depression.

Gastrointestinal: Nausea or vomiting.

- "Toxicology of Drugs and Chemicals", Deichmann, W.B., Academic Press, Inc., New York, Vol/p/yr: -,339, 1969

4. Acute toxicity, LDLO, Route of Application: Unreported., Human, 2770. MG/KG.

Result:

Biochemical: Enzyme inhibition, induction, or change in blood or tissue levels:

Cytochrome oxidases (including oxidative phosphorylation).

- Poisoning; Toxicology, Symptoms, Treatments, 2nd ed., Arena, J.M., C.C. Thomas, Springfield, IL, Vol/p/yr: 2,73, 1970

5. Acute toxicity, LD50, Oral, Mouse, 3600. MG/KG.

Result:

Behavioral: Altered sleep time (including change in righting reflex).

Behavioral: Somnolence (general depressed activity).

- Gigiena i Sanitariya, Mezhdunarodnaya Kniga, ul. B. Yakimanka, 39, 113095, Moscow
113095 Russia, Vol/p/yr: 43(1),8, 1978

6. Acute toxicity, LCLO, Inhalation, Mouse, 12800. PPM, 3 H.

Result:

Maternal Effects: Other effects.

- Interagency Collaborative Group on Environmental Carcinogenesis, National Cancer
Institute, Memorandum, June 1, Vol/p/yr: 17JU, 1974

7. Acute toxicity, LD50, Intraperitoneal, Mouse, 4477. MG/KG.

Result:

Skin and Appendages: Skin: After topical exposure: Dermatitis, allergic.

- EHP, Environmental Health Perspectives., U.S. Government Printing Office, Supt of
Documents, Washington, DC 20402, Vol/p/yr: 61,321, 1985

8. Acute toxicity, LD50, Intravenous, Mouse, 1509. MG/KG.

Result:

Lungs, Thorax, or Respiration: Fibrosis, focal (pneumoconiosis).

Lungs, Thorax, or Respiration: Acute pulmonary edema.

- EHP, Environmental Health Perspectives., U.S. Government Printing Office, Supt of
Documents, Washington, DC 20402, Vol/p/yr: 61,321, 1985

9. Acute toxicity, LD50, Oral, Species: Rabbit, 6410. MG/KG.

Result:

Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).

Effects on Newborn: Biochemical and metabolic.

- FAO Nutrition Meetings Report Series., Vol/p/yr: 48A,114, 1970

10. Acute toxicity, LD50, Skin, Species: Rabbit, 12800. MG/KG.

Result:

Specific Developmental Abnormalities: Respiratory system.

- Raw Material Data Handbook, Vol.1: Organic Solvents, 1974., National Assoc. of
Printing Ink Research Institute, Francis McDonald Sinclair Memorial Labor, Lehigh Univ.,
Bethlehem, PA 18015, Vol/p/yr: 1,100, 1974

11. Acute toxicity, LD50, Intraperitoneal, Species: Rabbit, 667.0 MG/KG.

Result:

Specific Developmental Abnormalities: Craniofacial (including nose and tongue).

- EHP, Environmental Health Perspectives., U.S. Government Printing Office, Supt of
Documents, Washington, DC 20402, Vol/p/yr: 61,321, 1985

12. Acute toxicity, TCLo, Inhalation, Human, 35.00 ppm.

Result:

Cardiac: Pulse rate decreased with fall in BP.

Lungs, Thorax, or Respiration: Other changes.

- Neurotoxicology., Intox Press, Inc., POB 34075, Little Rock, AR 72203, Vol/p/yr:
24,179, 2003

13. Acute toxicity, LDLO, Route of Application: Unreported., Human, 2.000 mL/kg.

Result:

Specific Developmental Abnormalities: Central nervous system.

Specific Developmental Abnormalities: Craniofacial (including nose and tongue).
Specific Developmental Abnormalities: Other developmental abnormalities.
- Japanese Journal of Toxicology, Yakugyo Jihosha, Hokushin Bldg., 2-36 Jinbo-cho, Kanda, Chiyoda, Tokyo 101 Japan, Vol/p/yr: 12,341, 1999

14. Standard Draize Test, Skin, Species: Rabbit, 500.0 MG.

Result:

Tumorigenic: Carcinogenic by RTECS criteria.

Liver: Tumors.

Blood: Leukemia.

- National Technical Information Service, Vol/p/yr: AD-A106-94,

15. Standard Draize Test, Eyes, Species: Rabbit, 100.0 MG.

Result:

Tumorigenic: Carcinogenic by RTECS criteria.

Liver: Tumors.

Blood: Leukemia.

- American Journal of Ophthalmology., Ophthalmic Pub. Co., 435 N. Michigan Ave., Suite 1415, Chicago, IL 60611, Vol/p/yr: 29,1363, 1946

Irritation or Corrosion:

Skin corrosion/irritation. Skin. Species: Guinea pig. Result: Mild skin irritation (OECD Test Guideline 404) Eyes. Rabbit.

Moderate eye irritation. (OECD Test Guideline 405) No data available. Serious eye damage/eye irritation no data available. Result: Tumorigenic:Tumors at site or application. Mild skin irritation -24 Eyes: No skin irritation . Remarks: (anhydrous substance) (OECD Test Guideline 404 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: No data available.

Specific target organ toxicity -repeated exposure: no data available. Specific target organ toxicity -single exposure (Globally Harmonized System) Specific target organ toxicity -single exposure: May cause respiratory irritation.

Inhalation: Oral. May cause drowsiness or dizziness.

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. IARC: 2B - Group 2B:

Possibly carcinogenic to humans (4-Methylpentan-2-one).

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# 0.1%: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

CAS #	Hazardous Components (Chemical Name)	NTP	IARC	ACGIH	OSHA
107-87-9	2-Pentanone	n.a.	n.a.	n.a.	n.a.
64-17-5	Ethyl alcohol	n.a.	1	Unknown	n.a.
108-10-1	Methyl isobutyl ketone	n.a.	2B	n.a.	n.a.
67-63-0	Isopropyl alcohol	n.a.	3	Unknown	n.a.
NA	(Trade Secret)	n.a.	n.a.	n.a.	n.a.
3109-63-5	Tetrabutylammonium hexafluorophosphate	n.a.	n.a.	n.a.	n.a.

108-88-3 Toluene
NA (Trade Secret)

n.a. 3 Unknown n.a.
n.a. n.a. n.a. n.a.

Revision: 06/30/2021
Supersedes Revision: 06/15/2021

12. Ecological Information

General Ecological Information:	No data available. (US-EPA) Environmental: No information available. Physical: No information available. Other: Avoid entering into waters or underground water.
Results of PBT and vPvB assessment:	PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.
Persistence and Degradability:	Biodegradability aerobic -Exposure time 28 d Result: 70 % -Readily biodegradable. No data available. Biodegradability: Biotic/Aerobic. (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: Dispose of as unused product. Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification. RCRA P-Series: None listed. RCRA U-Series: None listed.
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14. Transport Information

LAND TRANSPORT (US DOT):

DOT Proper Shipping Name:	Printing ink.		
DOT Hazard Class:	3	FLAMMABLE LIQUID	
UN/NA Number:	1210	Packing Group:	II



LAND TRANSPORT (Canadian TDG):

TDG Shipping Name:	Printing ink.		
UN Number:	1210	Packing Group:	II
Hazard Class:	3 - FLAMMABLE LIQUID	TDG Classification:	

LAND TRANSPORT (European ADR/RID):

ADR/RID Shipping Name:	Printing ink.		
UN Number:	1210	Packing Group:	II
Hazard Class:	3 - FLAMMABLE LIQUID		

MARINE TRANSPORT (IMDG/IMO):

IMDG/IMO Shipping Name: Printing ink.
UN Number: 1210 **Packing Group:** II
Hazard Class: 3 - FLAMMABLE LIQUID
IMDG MFAG Number:
Marine Pollutant: Yes

AIR TRANSPORT (ICAO/IATA):

ICAO/IATA Shipping Name: Printing ink.
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)
107-87-9	2-Pentanone	No	No	No
64-17-5	Ethyl alcohol	No	No	No
108-10-1	Methyl isobutyl ketone	No	Yes NA	Yes
67-63-0	Isopropyl alcohol	No	No	Yes
NA	(Trade Secret)	No	No	No
3109-63-5	Tetrabutylammonium hexafluorophosphate	No	No	No
108-88-3	Toluene	No	Yes NA	Yes
NA	(Trade Secret)	No	No	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 checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Carcinogenicity
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Self-heating	<input checked="" type="checkbox"/> Yes <input 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)	Canadian NPRI	Canadian Toxic	Canadian DSL
107-87-9	2-Pentanone	No	No	Yes
64-17-5	Ethyl alcohol	Yes: Part 5		Yes
108-10-1	Methyl isobutyl ketone	Yes: Part 5	No	Yes
67-63-0	Isopropyl alcohol	Yes: Part 5		Yes
NA	(Trade Secret)	No	No	No
3109-63-5	Tetrabutylammonium hexafluorophosphate	No	No	No
108-88-3	Toluene	Yes: Part 5	No	Yes
NA	(Trade Secret)			Yes

California Proposition 65



WARNING

This product can expose you to chemicals including Methyl isobutyl ketone, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov. This product can expose you to chemicals including (Trade Secret), which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov. This product can expose you to chemicals

including Toluene and Methanol, which are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

CAS #	Hazardous Components (Chemical Name)	Other US EPA or State Lists
107-87-9	2-Pentanone	TSCA: Inventory CA TAC, Title 8: Title 8
64-17-5	Ethyl alcohol	TSCA: Inventory CA TAC, Title 8: Title 8
108-10-1	Methyl isobutyl ketone	TSCA: Inventory CA PROP.65: Yes: Canc+RDTox. CA TAC, Title 8: TAC: Cat. IVa, Title 8 NC TAP: Yes: NC TAP
67-63-0	Isopropyl alcohol	TSCA: Inventory CA TAC, Title 8: TAC: Cat. IIb, Title 8
NA	(Trade Secret)	
3109-63-5	Tetrabutylammonium hexafluorophosphate	TSCA: Inventory
108-88-3	Toluene	TSCA: Inventory, 8A CAIR, 8C CA PROP.65: Yes: RDTox(F) CA TAC, Title 8: TAC: Cat. IIa, Title 8 NC TAP: Yes: NC TAP
NA	(Trade Secret)	TSCA: Inventory CA PROP.65: Yes: Canc.

CAS #	Hazardous Components (Chemical Name)	International Regulatory Lists
107-87-9	2-Pentanone	Japan ENCS: 2-542 Germany WHCS: 590: WGK 1 Switzerland Giftliste 1: G-2529 REACH: 01-2119988840-24: Full, (P)
64-17-5	Ethyl alcohol	Japan ENCS: 5-153 Israel HSL: Cat. Germany WHCS: 96: WGK 1 Switzerland Giftliste 1: G-1158 REACH: 01-2119457610-43: Full, (P)
108-10-1	Methyl isobutyl ketone	Mexico INSQ: 1245 Japan ENCS: 2-542 Germany WHCS: 137: WGK 1 Switzerland Giftliste 1: G-2468 REACH: 01-2119473980-30: Full, (P)
67-63-0	Isopropyl alcohol	Mexico INSQ: 1219 Japan ENCS: 2-207 Japan ISHL: 2-(8)-319 Israel HSL: Cat. Germany WHCS: 135: WGK 1 Switzerland Giftliste 1: G-1712 REACH: 01-2119457558-25: Full, (P)
NA	(Trade Secret)	
3109-63-5	Tetrabutylammonium hexafluorophosphate	Japan ENCS: 2-186 REACH: (P)
108-88-3	Toluene	Mexico INSQ: 1294 New Zealand IOC: HSR001227 Japan ENCS: 3-60 Japan ISHL: 4-(7)-2694 Germany WHCS: 194: WGK 2 Switzerland Giftliste 1: G-2063 REACH: 01-2119471310-51: Full, (P)

NA (Trade Secret)

Germany WHCS: : WGK 3
REACH: (R): Full, (P), C2

16. Other Information

Revision Date: 06/30/2021 **Previous revision:** 06/15/2021

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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