

1. Product and Company Identification

Product Name: JP-K28, 1028K
Trade Name: JP-K28
Company Name: Hitachi Industrial Equipment & Solutions America, LLC
Phone Number: (800)627-5464
 75 NW Point Blvd Suite D,
 Elk Grove Village, IL 60007
Web site address: <https://mc.hitachi-iesa.com>
Emergency Contact: Chemtrec (800)424-9300

Intended Use: Printing ink

2. Hazards Identification

Flammable Liquids, Category 2
Acute Toxicity: Oral, Category 5
Skin Corrosion/Irritation, Category 2
Serious Eye Damage/Eye Irritation, Category 2A
Toxic To Reproduction, Category 1B
Specific Target Organ Toxicity (single exposure), Category 1
Specific Target Organ Toxicity (single exposure), Category 3
Specific Target Organ Toxicity (repeated exposure), Category 1
Acute Toxicity: Inhalation, Category 4



GHS Signal Word:

Danger

GHS Hazard Phrases:

H225 - Highly flammable liquid and vapor.
 H303 - May be harmful if swallowed.
 H315 - Causes skin irritation.
 H319 - Causes serious eye irritation.
 H332 - Harmful if inhaled.
 H335 - May cause respiratory irritation.
 H336 - May cause drowsiness or dizziness.
 H360 - May damage fertility or the unborn child .
 H370 - Causes damage to organs visual, kidney, central nervous system, systemic toxicity
 H372 - Causes damage to organs visual, nervous system, central nervous system through prolonged or repeated exposure.

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/.../ equipment.
 P242 - Use only non-sparking tools.
 P243 - Take precautionary measures against static discharge.
 P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
 P264 - Wash hands thoroughly after handling.

P270 - Do not eat, drink or smoke when using this product.
 P271 - Use only outdoors or in a well-ventilated area.
 P280 - Wear protective gloves/protective clothing/eye protection/face protection.
 P281 - Use personal protective equipment as required.
 P302+352 - IF ON SKIN: Wash with plenty of soap and water.
 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.
 P307+311 - IF exposed: Call a POISON CENTER or doctor/physician.
 P308+313 - IF exposed or concerned: Get medical attention/advice.
 P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
 P314 - Get medical attention/advice if you feel unwell.
 P321 - Specific treatment see ... on this label.
 P332+313 - If skin irritation occurs, get medical advice/attention.
 P337+313 - If eye irritation persists, get medical advice/attention.
 P362 - Take off contaminated clothing and wash before re-use.
 P370+378 - In case of fire, use appropriate media to extinguish.

GHS Response Phrases:
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, regional, and national laws and regulations (to be specified).

Potential Health Effects (Acute and Chronic):

Hazards not otherwise classified (HNOC) or not covered by GHS. Hazards not otherwise classified (HNOC) or not covered by GHS -none.

3. Composition/Information on Ingredients

CAS #	Hazardous Components (Chemical Name)	Concentration
78-93-3	Methyl ethyl ketone	50.0 -60.0 %
67-56-1	Methanol	5.0 -15.0 %
NA	Proprietary chrome complex	5.0 -10.0 %

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. If not breathing, give artificial respiration. Consult a physician. IF exposed or concerned: Call a POISON CENTER or doctor/physician.

In Case of Skin Contact:

Remove contaminated clothing and shoes. Wash off with soap and plenty of water. If skin irritation occurs, get medical advice/attention.

In Case of Eye Contact:

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.

In Case of Ingestion:

If exposed or concerned: Call a POISON CENTER/Doctor/... Rinse mouth with water. Consult a physician. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

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

No data available.

treatment needed:

5. Fire Fighting Measures

Flash Pt:	> -6.00 C (21.2 F) Method Used: TAG Closed Cup
Explosive Limits:	LEL: No data. UEL: No data.
Autoignition Pt:	> 505.00 C (941.0 F)
Suitable Extinguishing Media:	Use agent most appropriate to extinguish fire. Use dry sand or earth to smother fire.
Fire Fighting Instructions:	Wear self contained breathing apparatus for fire fighting if necessary. Further information.
Flammable Properties and Hazards:	Carbon oxides, Flash back possible over considerable distance. Container explosion may occur under fire conditions. 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. Wear respiratory protection.
Environmental Precautions:	Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Keep away from heat, hot surfaces, sparks, open flames and other ignition source. No smoking.
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).

7. Handling and Storage

Precautions To Be Taken in Handling:	Ground and bond containers when transferring material. 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. Provide adequate ventilation. Keep Cool.
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 locked up. Hygroscopic. 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.

8. Exposure Controls/Personal Protection

CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
78-93-3	Methyl ethyl ketone	PEL: 200 ppm	TLV: 200 ppm STEL: 300 ppm	No data.
67-56-1	Methanol	PEL: 200 ppm	TLV: 200 ppm STEL: 250 ppm	No data.
NA	Proprietary chrome complex	No data.	No data.	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.

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:

Eye Protection:

Face shield and safety glasses.

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. Splash contact: Material: butyl-rubber Minimum layer thickness: 0.3 mm Break through time: 292 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. Complete suit protecting against chemicals.

Engineering Controls (Ventilation etc.):

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

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:	No data.
Melting Point:	-93.90 C (-137.0 F)
Boiling Point:	79.60 C (175.3 F)
Flash Pt:	> -6.00 C (21.2 F) Method Used: TAG Closed Cup
Evaporation Rate:	No data.
Flammability (solid, gas):	Flammable; may be ignited by heat, sparks or flames.
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:	0.892 at 0.0 C (32.0 F)
Solubility in Water:	No data.

Saturated Vapor Concentration:	No data.
Octanol/Water Partition Coefficient:	No data.
Autoignition Pt:	> 505.00 C (941.0 F)
Decomposition Temperature:	No data.
Viscosity:	No data.
Explosive Properties:	No data available.
Information on other hazards:	No data available.
Information with regard to primary physical hazard:	

10. Stability and Reactivity

Reactivity:	Stable under recommended storage conditions. See Section 7, Handling/Storage for more information.
Stability:	Unstable [] Stable [X]
Conditions To Avoid - Instability:	Exposure to moisture. Heat, flames and sparks. Extremes of temperature and direct sunlight.
Incompatibility - Materials To Avoid:	Oxidizing agents, Strong reducing agents, 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.
Possibility of Hazardous Reactions:	Will occur [] Will not occur [X]
Conditions To Avoid - Hazardous Reactions:	Vapors may form explosive mixture with air.

11. Toxicological Information

Toxicological Information:	Acute toxicity.
	Germ cell mutagenicity: No data available.
	Reproductive toxicity. Aspiration hazard: Inhalation: Dermal.
	CAS# 67-56-1:
	1. Reproductive Effects: , TCLo, Inhalation, Rat, 20000. PPM, 7 H, female 7-15 day(s) after conception.
	Result:
	Specific Developmental Abnormalities: Musculoskeletal system.
	Specific Developmental Abnormalities: Endocrine system.
	- Fundamental and Applied Toxicology., Academic Press, Inc., 1 E. First St., Duluth, MN 55802, Vol/p/yr: 5,727, 1985
	2. Reproductive Effects: , TDLo, Oral, Mouse, 40.00 GM/KG, female 6-15 day(s) after conception.
	Result:
	Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).
	Specific Developmental Abnormalities: Craniofacial (including nose and tongue).
	- Teratology, The International Journal of Abnormal Development, Alan R. Liss, Inc., 41 E. 11th St., New York, NY 10003, Vol/p/yr: 47,175, 1993

3. Reproductive Effects: , TCLO, Inhalation, Mouse, 1500. PPM, 6 H, female 7-9 day(s) after conception.

Result:

Specific Developmental Abnormalities: Central nervous system.

- Toxicologist., Soc. of Toxicology, Inc., 475 Wolf Ledge Parkway, Akron, OH 44311,
Vol/p/yr: 12,101, 1992

4. Reproductive Effects: , TDLo, Intraperitoneal, Mouse, 3400. mg/kg, 7 day pregnant.

Result:

Specific Developmental Abnormalities: Musculoskeletal system.

5. Mutagenicity:, Mutation test: Cytogenetic analysis., Oral, Mouse, 1.000 GM/KG.

Result:

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

Specific Developmental Abnormalities: Musculoskeletal system.

- Environmental Mutagenesis., For publisher information, see EMMUEG, New York, NY,
Vol/p/yr: 4,317, 1982

6. Acute toxicity, TDLo, Oral, Human, 3429. MG/KG.

Result:

Sense Organs and Special Senses (Nose, Eye, Ear, and Taste): Eye: Visual field changes.

- Acta Medica Scandinavica., Almqvist & Wiksell, Stockholm Sweden, Vol/p/yr: 212,5,
1982

7. Acute toxicity, TCLO, Inhalation, Human, 86000. MG/M3.

Result:

Sense Organs and Special Senses (Nose, Eye, Ear, and Taste):Eye:Lacrimation.

Lungs, Thorax, or Respiration: Cough.

Lungs, Thorax, or Respiration:Other changes.

- Archiv fuer Gewerbepathologie und Gewerbehygiene., For publisher information, see
IAEHDW, Berlin Germany, Vol/p/yr: 5,1, 1933

8. Acute toxicity, LDLO, Route of Application: Unreported., Human, 868.0 MG/KG.

Result:

Gastrointestinal:Nausea or vomiting.

Behavioral: Muscle weakness.

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

9. Acute toxicity, LD50, Oral, Mouse, 7300. MG/KG.

Result:

Vascular:Other changes.

- Toxicology., Elsevier Scientific Pub. Ireland, Ltd., POB 85, Limerick Ireland, Vol/p/yr:
25,271, 1982

10. Acute toxicity, LCLO, Inhalation, Mouse, 50.00 GM/M3, 2 H.

Result:

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

Cytochrome oxidases (including oxidative phosphorylation).

- Toxicometric Parameters of Industrial Toxic Chemicals Under Single Exposure,
Izmerov, N.F., et al., Centre of International Projects, GKNT, Moscow Russia, Vol/p/yr:

-,80, 1982

11. Standard Draize Test, Skin, Species: Rabbit, 20.00 MG, 24 H.

Result:

Tumorigenic: Equivocal tumorigenic agent by RTECS criteria.

Gastrointestinal:Tumors.

Liver: Tumors.

- Prehled Prumyslove Toxikologie, Marhold, J., Organicke Latky, Prague
Czechoslovakia, Vol/p/yr: -,187, 1986

12. Standard Draize Test, Eyes, Species: Rabbit, 40.00 MG.

Result:

Behavioral: Ataxia.

Lungs, Thorax, or Respiration:Dyspnea.

Gastrointestinal:Hypermotility, diarrhea.

- Union Carbide Data Sheet, Union Carbide Corp., 39 Old Ridgebury Rd., Danbury, CT
06817, Vol/p/yr: 3/24, 1970

13. LC50, Food, Insect: Drosophila., 40.122 - 46.477 PPTH Food, 72 H.

Measurement: Mortality, Trend: Increasing, Effect: Mortality.

Result:

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

- The Involvement of Several Enzymes in Methanol Detoxification in Drosophila
melanogaster Adults, Wang,S.P., X.X. Hu, Q.W. Meng, S.A. Muhammad, R.R. Chen, F.
Li, and G.Q. Li, 2013

Irritation or Corrosion:

Skin corrosion/irritation.

Result: Tumorigenic:Tumors at site or application. No skin irritation . (OECD Test
Guideline 404) Serious eye damage/eye irritation Eyes -Rabbit

Irritating to eyes . No data available. Serious eye damage/eye irritation no data available.

Sensitization:

No data available.

**Chronic Toxicological
Effects:**

Specific target organ toxicity - single exposure: May cause drowsiness or dizziness.

Specific target organ toxicity -repeated exposure: no data available. No data available.

**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.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is
identified as a carcinogen or potential carcinogen by ACGIH.

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.

CAS #	Hazardous Components (Chemical Name)	NTP	IARC	ACGIH	OSHA
78-93-3	Methyl ethyl ketone	n.a.	n.a.	n.a.	n.a.
67-56-1	Methanol	n.a.	n.a.	n.a.	n.a.
NA	Proprietary chrome complex	n.a.	n.a.	n.a.	n.a.

12. Ecological Information

General Ecological Information:	No data available.
Results of PBT and vPvB assessment:	PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.
Persistence and Degradability:	No data available.
Bioaccumulative Potential:	No data available.
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. Do not let product enter drains.
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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:	UN1210	Packing Group:	II



LAND TRANSPORT (Canadian TDG):

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

LAND TRANSPORT (European ADR/RID):

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

MARINE TRANSPORT (IMDG/IMO):

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

AIR TRANSPORT (ICAO/IATA):

ICAO/IATA Shipping Name:	Printing ink.		
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)
78-93-3	Methyl ethyl ketone	No	Yes NA	No
67-56-1	Methanol	No	Yes NA	Yes
NA	Proprietary chrome complex	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 checked="" type="checkbox"/> Yes <input 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 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 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)		

California Proposition 65



WARNING

This product can expose you to chemicals including Methanol, which is 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
78-93-3	Methyl ethyl ketone	TSCA: Inventory CA TAC, Title 8: TAC: Cat. IIa, Title 8 NC TAP: Yes: NC TAP
67-56-1	Methanol	TSCA: Inventory CA PROP.65: Yes: RDTox. CA TAC, Title 8: TAC: Cat. IIa, Title 8 NC TAP: Yes: US HAP
NA	Proprietary chrome complex	

CAS #	Hazardous Components (Chemical Name)	International Regulatory Lists
78-93-3	Methyl ethyl ketone	Mexico INSQ: 1193 Japan ENCS: 2-542 Germany WHCS: 150: WGK 1 Switzerland Giftliste 1: G-2429 REACH: 01-2119457290-43: Full, (P)
67-56-1	Methanol	Japan ENCS: 7-322 Israel HSL: Cat. Germany WHCS: 145: WGK 1 Switzerland Giftliste 1: G-2063 REACH: 01-2119433307-44: Full, (P)
NA	Proprietary chrome complex	REACH: (P)

16. Other Information

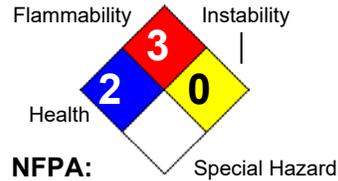
Revision Date: 11/07/2023

Previous revision: 08/14/2018

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.