

according to Regulation (EC) No. 1907/2006 as amended by (EC) No. 2020/878; US OSHA HCS 2012; and Canadian WHMIS 2015.

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

1.1 Product Identifiers:

Product Name: 1121K

1.2 Relevant identified uses of the substance or mixture and uses advised against:

1.3 Details of the Supplier of the Safety Data Sheet:

Company Name: Hitachi Industrial Equipment & Solutions America, LLC
 275 NW Point Blvd Suite D,
 Elk Grove Village, IL 60007 United States of America
Phone Number: (800)627-5464
Web site address: <https://mc.hitachi-iesa.com>

1.4 Emergency telephone number:

Emergency Contact: Chemtrec (800)424-9300

Section 2. Hazards Identification

2.1 Classification of the Substance or Mixture:

2.1.1 Classification according to Regulation (EC) No 1272/2008 [CLP], USA OSHA HCS 2012, and Canadian WHMIS 2015:

Flammable Liquids, Category 2

Acute Toxicity: Inhalation, Category 4

Skin Corrosion/Irritation, Category 2

Serious Eye Damage/Eye Irritation, Category 2A

Carcinogenicity, Category 2

Toxic To Reproduction, Category 1B

Specific Target Organ Toxicity (single exposure), Category 2 - Nervous system, Optic nerve, Kidneys,
 Systemic toxicity, Drowsiness and dizziness

Specific Target Organ Toxicity (single exposure), Category 3 - Respiratory irritation, Narcotic effects.

Specific Target Organ Toxicity (repeated exposure), Category 1 - Nervous system.

Specific Target Organ Toxicity (repeated exposure), Category 2 - Nervous system, Optic nerve, Lungs.

2.2 Label Elements:

2.2.1 Labeling according to Regulation (EC) No 1272/2008 [CLP], USA OSHA HCS 2012, and Canadian WHMIS 2015:



GHS Signal Word:

Danger

Hazard-determining components of labelling:

Methyl ethyl ketone
Butyl acetate
Methanol
Carbon black

GHS Hazard Phrases:

H225 - Highly flammable liquid and vapor.
H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H332 - Harmful if inhaled.
H335 - May cause respiratory irritation.
H336 - May cause drowsiness or dizziness.
H351 - Suspected of causing cancer .
H360 - May damage fertility or the unborn child .
H371 - May cause damage to organs - Nervous system, Optic nerve, Kidneys, Systemic toxicity, Drowsiness and dizziness.
H372 - Causes damage to organs - Nervous system. through prolonged or repeated exposure.
H373 - May cause damage to - Nervous system, Optic nerve, Lungs. 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.
P235 - Keep cool.

GHS Response Phrases:

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.
P308+311 - If exposed or concerned: Call a POISON CENTER/Doctor/...
P313 - Get medical advice/attention.
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+364 - Take off contaminated clothing and wash it before reuse.
P370+378 - In case of fire, use ... to extinguish.

GHS Storage and Disposal Phrases:

P403+233 - Store container tightly closed in well-ventilated place.

P405 - Store locked up.

P501 - Dispose of contents/container ...

UFI:

2.3 Adverse Human Health Chronic: Chronic inhalation may cause effects similar to those of acute inhalation.

Effects and Symptoms: Prolonged or repeated skin contact may cause defatting and dermatitis. Animal studies have reported that fetal effects/abnormalities may occur when maternal toxicity is seen. Chronic overexposure to vapors may cause lung damage. Hazards not otherwise classified (HNOC) or not covered by GHS. Possible cancer hazard based on tests with laboratory animals.

2.3.1 Inhalation:

Causes respiratory tract irritation. Inhalation of vapors may cause drowsiness and dizziness. May cause central nervous system effects such as nausea and headache. Neurobehavioural effects of exposure to MEK (200 ppm for 4 hrs) were studied with 137 volunteers. There were no statistically significant effects observed in biochemical, psychomotor, sensorimotor and psychological tests. Dust is irritating to the respiratory tract. Exposure may impair lung function and cause mucostasis (reduced mucous clearance). Carbon black dust is extremely fine and light and can be breathed deeply into the lungs, where it can accumulate. Normally the dust is cleared gradually and has no harmful effects. However, high concentrations can overwhelm the clearance capacity of the lungs, and impair function.

2.3.2 Skin Contact:

May be absorbed through the skin in harmful amounts. Repeated or prolonged exposure may cause drying and cracking of the skin. Only one human case of skin sensitization was located. Negative results were obtained in an animal test; MEK did not produce skin sensitization in the mouse ear thickness test. Prolonged and/or repeated contact may cause defatting of the skin and dermatitis. Not expected to cause an allergic skin reaction. A single prolonged skin exposure is not likely to result in the material being absorbed in harmful amounts. Fifty subjects underwent repeated insult patch-testing with n-butyl acetate. Patches containing 0.5 ml of butyl acetate were applied for nine 24-hour applications over a 3-week period; challenge patches were applied 10 to 14 days after the final induction application. No subject was sensitized. May cause skin irritation.

2.3.3 Eye Contact:

Causes eye irritation. Vapors may cause eye irritation. Animal evidence suggests that MEK is a moderate to severe eye irritant.

2.3.4 Ingestion:

May cause irritation of the digestive tract. Possible aspiration hazard. May cause central nervous system depression. Animal evidence suggests that MEK can be aspirated (inhaled) into the lungs during ingestion or vomiting. May cause gastrointestinal irritation with nausea, vomiting and diarrhea. Ingestion of large amounts may cause central nervous system depression. Ingestion of large amounts may cause gastrointestinal irritation.

Section 3. Composition/Information on Ingredients

CAS #	Hazardous Components (Chemical Name)/ REACH Registration No.	Concentration	EC No./ EC Index No.	GHS Classification
78-93-3	Methyl ethyl ketone 01-2119457290-43	75.0 -85.0 %	201-159-0 606-002-00-3	Flam. Liq. 2: H225 Eye Damage 2: H319 STOT (SE) 3: H336 EUH066
123-86-4	Butyl acetate 01-2119485493-29	1.0 -3.0 %	204-658-1 607-025-00-1	Flam. Liq. 3: H226 STOT (SE) 3: H335 H336 EUH066
67-56-1	Methanol	1.0 -3.0 %	200-659-6	Flam. Liq. 2: H225

01-2119392409-28			603-001-00-X	Acute Tox.(O) 3: H301 Acute Tox.(D) 3: H311 Acute Tox.(I) 3: H331 STOT (SE) 1: H370
1333-86-4	Carbon black	1.0 -3.0 %	215-609-9	Carcinogen 2: H351 STOT (RE) 1: H372
	01-2119384822-32		NA	
NA	(Trade Secret)NA	1.0 -3.0 %	NA	No data available.
			NA	

Section 4. First Aid Measures

- 4.1 Description of First Aid** Consult a physician. Show this safety data sheet to the doctor in attendance.
- Measures:**
- In Case of Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid. If breathed in, move person into fresh air. Consult a physician. Remove from exposure and move to fresh air immediately.
- In Case of Skin Contact:** In case of contact, flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical aid if irritation develops and persists. Wash clothing before reuse. Wash off with soap and plenty of water. Consult a physician. Get medical aid if irritation develops or persists. Flush skin with plenty of soap and water.
- In Case of Eye Contact:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid. 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.
- In Case of Ingestion:** Potential for aspiration if swallowed. Get medical aid immediately. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If vomiting occurs naturally, have victim lean forward. If swallowed, do not induce vomiting unless directed to do so by medical personnel. Get medical aid. Do NOT induce vomiting. Rinse mouth with water. Consult a physician. If victim is conscious and alert, give 2-4 cupfuls of milk or water.
- 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
- Note for the Doctor:** Treat symptomatically and supportively.
- 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:** In case of fire, use carbon dioxide, dry chemical powder or appropriate foam. Water may be ineffective because it will not cool material below its flash point. For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam. For large fires, use water spray, fog, or alcohol-resistant foam. Water may be ineffective. Use water spray, dry chemical, carbon dioxide, or alcohol-resistant foam. Use water spray to cool fire-exposed containers. Use water spray, dry chemical, carbon dioxide, or appropriate foam.
- 5.2 Flammable Properties and Hazards:** No data available.
- No data available.

Flash Point:	> -7.00 C (19.4 F) Method Used: Estimate
Explosive Limits:	LEL: No data. UEL: No data.
Autoignition Pt:	> 404.00 C (759.2 F)
5.3 Fire Fighting Instructions:	<p>As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Extremely flammable liquid and vapor. Vapor may cause flash fire. Vapors are heavier than air and may travel to a source of ignition and flash back. Vapors can spread along the ground and collect in low or confined areas. Vapors may form explosive mixtures with air. Use water spray to keep fire-exposed containers cool. Containers may explode in the heat of a fire. Liquid will float and may reignite on the surface of water. Flammable liquid and vapor. May accumulate static electrical charges, and may cause ignition of its own vapors. Wear self contained breathing apparatus for fire fighting if necessary.</p> <p>Further information. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Carbon black can be ignited in the presence of open flames. Once ignited it burns slowly with the production of Carbon monoxide.</p>

Section 6. Accidental Release Measures

6.1 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.
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:	<p>Use proper personal protective equipment as indicated in Section 8.</p> <p>Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Clean up spills immediately, observing precautions in the Protective Equipment section. Remove all sources of ignition. Use a spark-proof tool. Provide ventilation. Avoid runoff into storm sewers and ditches which lead to waterways. Use water spray to disperse the gas/vapor. 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). Vacuum or sweep up material and place into a suitable disposal container. Avoid generating dusty conditions.</p>

Section 7. Handling and Storage

7.1 Precautions To Be Taken in Handling:	<p>Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Ground and bond containers when transferring material. Use spark-proof tools and explosion proof equipment. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Keep away from heat, sparks and flame. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames. Use only with adequate ventilation. Avoid breathing vapor. 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. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid ingestion and inhalation.</p>
7.2 Precautions To Be Taken in Storing:	Keep away from sources of ignition. Store tightly closed in a cool, dry, well-ventilated area away from incompatible substances. Flammables-area. Keep from contact with oxidizing materials. 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. Recommended storage temperature: -20 - 20 deg.C.
 Store in a cool, dry place. Store in a tightly closed container.

Section 8. Exposure Controls/Personal Protection

8.1 Exposure Parameters:

CAS #	Chemical Name	Jurisdiction	Recommended Exposure Limits	Notations
78-93-3	Methyl ethyl ketone	ACGIH TLV	TLV: 200 ppm STEL: 300 ppm	
		Europe	TWA: 600 mg/m3 (200 ppm) STEL: 900 mg/m3 (300 ppm)	
		France VL	TWA: 600 mg/m3 (200 ppm) STEL: 900 mg/m3 (300 ppm)	
		OSHA PELs	PEL: 200 ppm	
		Britain EH40	TWA: 600 mg/m3 (200 ppm) STEL: 899 mg/m3 (300 ppm)	Skin Absorption
123-86-4	Butyl acetate	ACGIH TLV	TLV: 150 ppm STEL: 200 ppm	
		France VL	TWA: 710 mg/m3 (150 ppm) STEL: 940 mg/m3 (200 ppm)	
		OSHA PELs	PEL: 150 ppm	
		Britain EH40	TWA: 724 mg/m3 (150 ppm) STEL: 966 mg/m3 (200 ppm)	
		ACGIH TLV	TLV: 200 ppm STEL: 250 ppm	
67-56-1	Methanol	Europe	TWA: 260 mg/m3 (200 ppm)	Skin Absorption
		France VL	TWA: 260 mg/m3 (200 ppm) STEL: 1300 mg/m3 (1000 ppm)	
		OSHA PELs	PEL: 200 ppm	
		Britain EH40	TWA: 266 mg/m3 (200 ppm) STEL: 333 mg/m3 (250 ppm)	Skin Absorption
		ACGIH TLV	TLV: 3 mg/m3 (IHL)	
1333-86-4	Carbon black	France VL	TWA: 3.5 mg/m3	
		OSHA PELs	PEL: 3.5 mg/m3	
		Britain EH40	TWA: 3.5 mg/m3 () STEL: 7 mg/m3 ()	

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 exhaust ventilation to keep airborne concentrations below the permissible exposure limits. Ventilation fans and other electrical service must be non-sparking and have an explosion-proof design. Use process enclosure, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

8.2.2 Personal protection equipment:

Personal Protective Equipment Symbols:



Eye Protection: Wear chemical splash goggles. 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). 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. Wear appropriate gloves to prevent skin exposure. 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.

Other Protective Clothing: Wear appropriate protective clothing to prevent skin exposure. Complete suit protecting against chemicals. 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. Wear appropriate protective clothing to minimize contact with skin.

Respiratory Equipment (Specify Type): 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. 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).

Work/Hygienic/Maintenance Practices: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

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 [X] Solid

Appearance and Odor: Black.
solvent odor.

pH: No data.

Melting Point: -87.00 C (-124.6 F) - -77.00 C (-106.6 F)

Boiling Point: 64.00 C (147.2 F) - 126.00 C (258.8 F) / 0.0 mm Hg

Flash Point: > -7.00 C (19.4 F) Estimate

Evaporation Rate: No data.

Saturated Vapor Concentration: No data.

Flammability (solid, gas):	No data available.		
Explosive Limits:	LEL: No data.	UEL: No data.	- Calculated average from good ingredient data
Vapor Pressure:	No data.		
Vapor Density (vs. Air=1):	No data.		
Specific Gravity (Water=1):	No data.		
Density:	~ 0.8045 G/CM3		
Solubility in Water:	No data.		
Octanol/Water Partition Coefficient:	No data.		
Autoignition Pt:	> 404.00 C (759.2 F)		
Decomposition Temperature:	No data.		
Viscosity:	No data.		
Explosive Properties:	No data available.		
Information on other hazards:	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.
Possibility of Hazardous Reactions:	Will occur [] Will not occur [X]
10.4 Conditions To Avoid - Instability:	Ignition sources. Excess heat. Heat, flames and sparks. Extremes of temperature and direct sunlight. Incompatible materials, Moisture.
10.5 Incompatibility - Materials To Avoid:	Strong oxidizing agents, Strong acids, 2-propanol, nitrates, caustics (e.g. ammonia, ammonium hydroxide, calcium hydroxide, potassium hydroxide, sodium hydroxide), potassium tert-butoxide, Reacts w/H2O on standing to form acetic acid & n-butyl alcohol. This is a very slow reaction. acids, Bases, Oxidizing agents, Alkali metals, May react vigorously or violently when mixed with strong oxidizing agents such as chlorates, bromates and nitrates, especially when heated. Incompatible with chlorinated paraffins, lead oxide, manganese oxide, iron oxide, liquid oxygen, oils, and moisture.
10.6 Hazardous Decomposition or Byproducts:	Carbon monoxide, Carbon dioxide, Other decomposition products: No data available. In the event of fire: see section 5.

Section 11. Toxicological Information**11.1 Information on**

Epidemiology: No information found.

Toxicological Effects:

Teratogenicity: Exposure to n-butyl acetate vapors throughout gestation did not cause significant teratogenicity in rabbits, rats, or mice.

Reproductive Effects: Mutagenicity: Neurotoxicity: Other Studies: Germ cell mutagenicity: No data available.

Reproductive toxicity. Aspiration hazard: Teratogenicity: No information available. See actual entry in RTECS for complete information.

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. No data available. Serious eye damage/eye irritation:

Sensitization: No data available.

Chronic Toxicological Effects: Specific target organ toxicity - single exposure: No data available.

Specific target organ toxicity - repeated exposure:

Carcinogenicity/Other Information: CAS# 78-93-3: Not listed by ACGIH, IARC, NTP, or CA Prop 65. CAS# 123-86-4: Not listed by ACGIH, IARC, NTP, or CA Prop 65. 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. CAS# 1333-86-4: ACGIH: Not listed.
 California: carcinogen, initial date 2/21/03 (airborne, unbound particles of respirable size).
 NTP: Not listed.

11.2 Information on other hazards: No data available.

CAS #	Hazardous Components (Chemical Name)	NTP	IARC	ACGIH	OSHA
78-93-3	Methyl ethyl ketone	n.a.	n.a.	n.a.	n.a.
123-86-4	Butyl acetate	n.a.	n.a.	n.a.	n.a.
67-56-1	Methanol	n.a.	n.a.	n.a.	n.a.
1333-86-4	Carbon black	n.a.	2B	A4	n.a.
NA	(Trade Secret)	n.a.	n.a.	n.a.	n.a.

Section 12. Ecological Information

12.1 Toxicity: Environmental: Substance evaporates in water with T1/2= 3D (rivers) to 12D (lakes). Substance is not expected to bioconcentrate in marine life. Physical: Substance photodegrades in air with T1/2 = 2.3 days. Oxidizes rapidly by photo-chemical reactions in air. Readily biodegradable meeting the 10 day window criterion. Not expected to bioaccumulate significantly.
 Based on estimated Koc values of 34 and 233,, n-butyl acetate may be subject to moderate-to-high leaching. Volatilization from dry soil surfaces is likely to be rapid. n-Butyl acetate may be susceptible to significant biodegradation in natural water. Physical: n-Butyl acetate will exist almost entirely in the vapor-phase in the ambient atmosphere due to its relatively high vapor pressure. The half-life for the vapor-phase reaction of n-butyl acetate with photochemically produced hydroxyl radicals has been estimated to be about 6 days in an average atmosphere indicating that this reaction will be the dominant removal mechanism.

12.2 Persistence and Degradability: No data available.

12.3 Bioaccumulative Potential: No data available.

12.4 Mobility in Soil: No data available.

12.5 Results of PBT and PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

vPvB assessment:

12.6 **Endocrine disrupting properties:** No data available.

12.7 **Other adverse effects:** No data available.

Section 13. Disposal Considerations

13.1 Waste Disposal Method: 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:
 CAS# 78-93-3: waste number U159 (Ignitable waste, Toxic waste). RCRA U-Series: None listed. 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.
 Contaminated packaging:

Section 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: ETHYL METHYL KETONE. BUTYL ACETATES. Not Regulated.
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

Section 15. Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:
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
123-86-4	Butyl acetate	No	Yes NA	No
67-56-1	Methanol	No	Yes NA	Yes (3%)
1333-86-4	Carbon black	No	No	No
NA	(Trade Secret)	No	No	No

EPA SARA Title III Section 313 Toxic Release Inventory.

This product contains a toxic chemical or chemicals subject to the reporting requirements of EPCRA Section 313 (40 CFR Section 372).

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 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 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)		

CAS #	Hazardous Components (Chemical Name)	Canadian NPRI	Canadian Toxic	Canadian DSL
78-93-3	Methyl ethyl ketone	Yes: Part 5	No	Yes
123-86-4	Butyl acetate	Yes: Part 5	No	Yes
67-56-1	Methanol	Yes: Part 5		Yes
1333-86-4	Carbon black	No	No	Yes
NA	(Trade Secret)	No	No	No

California Proposition 65



WARNING

This product can expose you to chemicals including Carbon black, 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 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	International Regulatory Lists
78-93-3	Methyl ethyl ketone	TSCA: Inventory CA TAC, Title 8: TAC: Cat. Ila, Title 8 NC TAP: Yes: NC TAP	Mexico INSQ: 1193 Japan ENCS: 2-542 Germany WHCS: 150: WGK 1 Switzerland Giftliste 1: G-2429 REACH: (P), 01-2119457290-43: Full
123-86-4	Butyl acetate	TSCA: Inventory CA TAC, Title 8: Title 8	Japan ENCS: 2-735 Japan ISHL: 2-(6)-226 Germany WHCS: 42: WGK 1 Switzerland Giftliste 1: G-1320 REACH: (P), 01-2119485493-29: Full
67-56-1	Methanol	TSCA: Inventory CA PROP.65: Yes: RDTox. CA TAC, Title 8: TAC: Cat. Ila, Title 8 NC TAP: Yes: US HAP	Japan ENCS: 7-322 Japan ISHL: 8-(1)-4744 Israel HSL: Cat. Germany WHCS: 145: WGK 1 Switzerland Giftliste 1: G-2063 REACH: (P), 01-2119433307-44: Full, Res. - 69.
1333-86-4	Carbon black	TSCA: Inventory CA PROP.65: Yes: Canc. CA TAC, Title 8: TAC: Cat.	Japan ENCS: 5-5222 Germany WHCS: 1742: WGK 0/nwg

Revision: 09/23/2024
Supersedes Revision: 10/06/2022
Switzerland Giftliste 1: G-8938
REACH: (P),
01-2119384822-32: Full

IVb, Title 8

NA (Trade Secret)

15.2 Chemical Safety

Assessment:

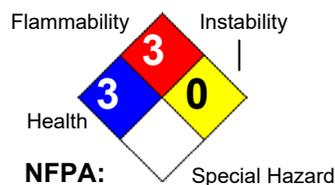
Section 16. Other Information

Revision Date: 09/23/2024

Hazard Rating System:

HEALTH		3
FLAMMABILITY		3
PHYSICAL		0
PPE		B

HMIS:



Additional Information About This Product: No data available.

This Product:

Company Policy or

Disclaimer: