

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: S1084

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	Phone Number:	(800)627-5464
	75 NW Point Blvd Suite D, Elk Grove Village, IL 60007		United States of America
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: Oral, Category 5
- Acute Toxicity: Skin, Category 5
- Acute Toxicity: Inhalation, Category 4
- 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 2 - Central nervous system, Optic nerve, Kidneys.
- 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 - Central nervous system, Optic nerve, Respiratory irritation, Gastrointestinal tract.
- Aspiration Toxicity, Category 2

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
Methanol
Acetone

GHS Hazard Phrases:

H225 - Highly flammable liquid and vapor.
H303+313 - May be harmful if swallowed or in contact with skin.
H305 - May be harmful if swallowed and enters airways.
H315 - Causes skin irritation.
H319 - Causes serious eye irritation.
H332 - Harmful if inhaled.
H336 - May cause drowsiness or dizziness.
H360 - May damage fertility or the unborn child .
H370 - Causes damage to organs
H371 - May cause damage to organs - Central nervous system, Optic nerve, Kidneys..
H372 - Causes damage to organs - Nervous system. through prolonged or repeated exposure.
H373 - May cause damage to - Central nervous system, Optic nerve, Respiratory irritation, Gastrointestinal tract. 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:

P301+310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
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.
P331 - Do NOT induce vomiting.
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 Ingredient CAS# 78-93-3, Methyl ethyl ketone:

Effects and Symptoms: Chronic: Chronic inhalation may cause effects similar to those of acute inhalation.

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.

Ingredient CAS# 67-56-1, Methanol:

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

Ingredient CAS# 67-64-1, Acetone:

Repeated exposure may cause skin dryness or cracking.

2.3.1 Inhalation:

Ingredient CAS# 78-93-3, Methyl ethyl ketone:

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.

2.3.2 Skin Contact:

Ingredient CAS# 78-93-3, Methyl ethyl ketone:

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.

2.3.3 Eye Contact:

Ingredient CAS# 78-93-3, Methyl ethyl ketone:

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

2.3.4 Ingestion:

Ingredient CAS# 78-93-3, Methyl ethyl ketone:

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.

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	90.0 -100.0 %	201-159-0 606-002-00-3	Flam. Liq. 2: H225 Eye Damage 2: H319 STOT (SE) 3: H336 EUH066
67-56-1	Methanol 01-2119392409-28	1.0 -3.0 %	200-659-6 603-001-00-X	Flam. Liq. 2: H225 Acute Tox.(O) 3: H301

67-64-1 Acetone
01-2119471330-49

1.0 -3.0 %

200-662-2

606-001-00-8

Acute Tox.(D) 3: H311

Acute Tox.(I) 3: H331

STOT (SE) 1: H370

Flam. Liq. 2: H225

Eye Damage 2A: H319

STOT (SE) 3: H335 H336

EUH066

Section 4. First Aid Measures

4.1 Description of First Aid

Measures: Consult a physician. Show this safety data sheet to the doctor in attendance.

Ingredient CAS# 67-64-1, Acetone:

Move out of dangerous area.

In Case of Inhalation: Ingredient CAS# 78-93-3, Methyl ethyl ketone:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Ingredient CAS# 67-56-1, Methanol:

If breathed in, move person into fresh air. Consult a physician.

Ingredient CAS# 67-64-1, Acetone:

In Case of Skin

Contact:

Ingredient CAS# 78-93-3, Methyl ethyl ketone:

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.

Ingredient CAS# 67-56-1, Methanol:

Wash off with soap and plenty of water. Consult a physician.

Ingredient CAS# 67-64-1, Acetone:

In Case of Eye

Contact:

Ingredient CAS# 78-93-3, Methyl ethyl ketone:

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid.

Ingredient CAS# 67-56-1, Methanol:

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Ingredient CAS# 67-64-1, Acetone:

In Case of Ingestion:

Ingredient CAS# 78-93-3, Methyl ethyl ketone:

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.

Ingredient CAS# 67-56-1, Methanol:

Do NOT induce vomiting. Rinse mouth with water. Consult a physician.

Ingredient CAS# 67-64-1, Acetone:

4.2 Important Symptoms and Effects, Both

Ingredient CAS# 67-56-1, Methanol:

The most important known symptoms and effects are described in the labelling (see

Acute and Delayed: section 2.2) and/or in section 11

Ingredient CAS# 67-64-1, Acetone:

Note for the Doctor: Ingredient CAS# 78-93-3, Methyl ethyl ketone:
Treat symptomatically and supportively.

4.3 Indication of any immediate medical attention and special treatment needed: Ingredient CAS# 67-56-1, Methanol:
No data available.
Ingredient CAS# 67-64-1, Acetone:

Section 5. Fire Fighting Measures

5.1 Suitable Extinguishing Media: Ingredient CAS# 78-93-3, Methyl ethyl ketone:
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.

Ingredient CAS# 67-56-1, Methanol:

Use water spray, dry chemical, carbon dioxide, or alcohol-resistant foam.

5.2 Flammable Properties and Hazards: Ingredient CAS# 67-64-1, Acetone:
Ingredient CAS# 67-56-1, Methanol:
No data available.

Ingredient CAS# 67-64-1, Acetone:

Carbon oxides.

No data available.

Flash Point: > -6.30 C (20.7 F) Method Used: Closed Cup

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

Autoignition Pt: 505.00 C (941.0 F)

5.3 Fire Fighting Instructions: Ingredient CAS# 78-93-3, Methyl ethyl ketone:
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.

Ingredient CAS# 67-56-1, Methanol:

Wear self contained breathing apparatus for fire fighting if necessary.

Further information. Use water spray to cool unopened containers.

Ingredient CAS# 67-64-1, Acetone:

Section 6. Accidental Release Measures

- 6.1 Protective Precautions, Protective Equipment and Emergency Procedures:** Ingredient CAS# 67-56-1, Methanol:
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:** Ingredient CAS# 67-64-1, Acetone:
Ingredient CAS# 67-56-1, Methanol:
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
- Ingredient CAS# 67-64-1, Acetone:
Discharge into the environment must be avoided.
- 6.3 Methods and Material For Containment and Cleaning Up:** Ingredient CAS# 78-93-3, Methyl ethyl ketone:
Use proper personal protective equipment as indicated in Section 8.
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.
- Ingredient CAS# 67-56-1, Methanol:
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).
- Ingredient CAS# 67-64-1, Acetone:

Section 7. Handling and Storage

- 7.1 Precautions To Be Taken in Handling:** Ingredient CAS# 78-93-3, Methyl ethyl ketone:
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.
- Ingredient CAS# 67-56-1, Methanol:
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.
- Ingredient CAS# 67-64-1, Acetone:
- 7.2 Precautions To Be Taken in Storing:** Ingredient CAS# 78-93-3, Methyl ethyl ketone:
Keep away from sources of ignition. Store tightly closed in a cool, dry, well-ventilated area away from incompatible substances. Flammables-area.
- Ingredient CAS# 67-56-1, Methanol:

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.

Ingredient CAS# 67-64-1, Acetone:

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
67-56-1	Methanol	ACGIH TLV	TLV: 200 ppm STEL: 250 ppm	
		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
67-64-1	Acetone	ACGIH TLV	TLV: 500 ppm STEL: 750 ppm	
		Europe	TWA: 1210 mg/m3 (500 ppm)	
		France VL	TWA: 1210 mg/m3 (500 ppm) STEL: 2420 mg/m3 (1000 ppm)	
		OSHA PELs	PEL: 1000 ppm	
		Britain EH40	TWA: 1210 mg/m3 (500 ppm) STEL: 3620 mg/m3 (1500 ppm)	

8.2 Exposure Controls:

8.2.1 Engineering Controls (Ventilation etc.): Ingredient CAS# 78-93-3, Methyl ethyl ketone:
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.

8.2.2 Personal protection equipment:

Personal Protective Equipment Symbols:



Eye Protection:

Ingredient CAS# 78-93-3, Methyl ethyl ketone:
Wear chemical splash goggles.

Ingredient CAS# 67-56-1, Methanol:

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).

Ingredient CAS# 67-64-1, Acetone:

Protective Gloves:

Ingredient CAS# 78-93-3, Methyl ethyl ketone:
Wear appropriate protective gloves to prevent skin exposure.

Ingredient CAS# 67-56-1, Methanol:

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.

Ingredient CAS# 67-64-1, Acetone:

Other Protective Clothing:

Ingredient CAS# 78-93-3, Methyl ethyl ketone:
Wear appropriate protective clothing to prevent skin exposure.

Ingredient CAS# 67-56-1, Methanol:

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.

Ingredient CAS# 67-64-1, Acetone:

Impervious clothing.

Respiratory Equipment (Specify Type):

Ingredient CAS# 78-93-3, Methyl ethyl ketone:
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.

Ingredient CAS# 67-56-1, Methanol:

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).

Ingredient CAS# 67-64-1, Acetone:

Work/Hygienic/Mainten ance Practices:

Ingredient CAS# 67-56-1, Methanol:
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: Ingredient CAS# 67-64-1, Acetone:
 Ingredient CAS# 67-56-1, Methanol:
 Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Ingredient CAS# 67-64-1, Acetone:
 Discharge into the environment must be avoided.

Exposure Scenarios: No data available.

Section 9. Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

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

Appearance and Odor: Clear.
solvent odor.

pH: No data.

Melting Point: -86.40 C (-123.5 F) - 0.00 C (32.0 F)

Boiling Point: 79.60 C (175.3 F) - 0.00 C (32.0 F) / 0.0 mm Hg

Flash Point: > -6.30 C (20.7 F) Closed Cup

Evaporation Rate: No data.

Saturated Vapor Concentration: No data.

Flammability (solid, gas): No data available.

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

Vapor Pressure: No data.
No data.

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

Specific Gravity (Water=1): No data.

Density: 0.8044 G/CM3

Solubility in Water: 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: Ingredient CAS# 67-56-1, Methanol:
No data available.

Ingredient CAS# 67-64-1, Acetone:

Information on other hazards: Ingredient CAS# 67-56-1, Methanol:
No data available.

Ingredient CAS# 67-64-1, Acetone:

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: Ingredient CAS# 67-56-1, Methanol:
No data available.

10.2 Stability: Ingredient CAS# 67-64-1, Acetone:
Unstable [] Stable []

10.3 Conditions To Avoid - Hazardous Reactions: Ingredient CAS# 67-56-1, Methanol:
No data available.

Ingredient CAS# 67-64-1, Acetone:
Vapors may form explosive mixture with air.

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

10.4 Conditions To Avoid - Instability: Ingredient CAS# 78-93-3, Methyl ethyl ketone:
Ignition sources. Excess heat. Confined spaces.

Ingredient CAS# 67-56-1, Methanol:
Heat, flames and sparks. Extremes of temperature and direct sunlight.

10.5 Incompatibility - Materials To Avoid: Ingredient CAS# 67-64-1, Acetone:
Ingredient CAS# 78-93-3, Methyl ethyl ketone:
Strong oxidizing agents, Strong acids, 2-propanol,

Ingredient CAS# 67-56-1, Methanol:
acids, Bases, Oxidizing agents, Alkali metals,

10.6 Hazardous Decomposition or Byproducts: Ingredient CAS# 67-64-1, Acetone:
Strong reducing agents.

Ingredient CAS# 78-93-3, Methyl ethyl ketone:
Carbon monoxide, Carbon dioxide, Peroxides,

Ingredient CAS# 67-56-1, Methanol:
Other decomposition products: No data available. In the event of fire: see section 5.

Ingredient CAS# 67-64-1, Acetone:

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

Ingredient CAS# 67-56-1, Methanol:

Germ cell mutagenicity: No data available.

Reproductive toxicity. Aspiration hazard: Ingredient CAS# 67-64-1, Acetone:

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., Almquist & 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

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: Ingredient CAS# 67-56-1, Methanol:

Skin corrosion/irritation. No data available. Serious eye damage/eye irritation: Ingredient

CAS# 67-64-1, Acetone:

Provide adequate ventilation.

Result: Mild eye irritation -24. Eyes - rabbit -

Result: Eye irritation - 24 h.

Sensitization: Ingredient CAS# 67-56-1, Methanol:

No data available.

Ingredient CAS# 67-64-1, Acetone:

Guinea pig 88%, 4

Result: Does not cause skin sensitisation.

Chronic Toxicological Ingredient CAS# 67-56-1, Methanol:

Effects:

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

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

Ingredient CAS# 67-64-1, Acetone:

May cause drowsiness or dizziness.

Carcinogenicity/Other Information: Ingredient CAS# 78-93-3, Methyl ethyl ketone:
CAS# 78-93-3: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Ingredient CAS# 67-56-1, Methanol:
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.

Ingredient CAS# 67-64-1, Acetone:
This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.

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.
67-56-1	Methanol	n.a.	n.a.	n.a.	n.a.
67-64-1	Acetone	n.a.	n.a.	A4	n.a.

Section 12. Ecological Information

12.1 Toxicity: Ingredient CAS# 78-93-3, Methyl ethyl ketone:
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.
Other: No information available.

12.2 Persistence and Degradability: Ingredient CAS# 67-56-1, Methanol:
No data available.

Ingredient CAS# 67-64-1, Acetone:
Biodegradability Result: 91 % -Readily biodegradable. - Readily biodegradable. (OECD Test Guideline 301B)

12.3 Bioaccumulative Potential: Ingredient CAS# 67-56-1, Methanol:
No data available.

Ingredient CAS# 67-64-1, Acetone:
Does not bioaccumulate.

12.4 Mobility in Soil: Ingredient CAS# 67-56-1, Methanol:
No data available.

12.5 Results of PBT and vPvB assessment: Ingredient CAS# 67-56-1, Methanol:
PBT/vPvB assessment not available as chemical safety assessment not required/not

conducted.

Ingredient CAS# 67-64-1, Acetone:

12.6 Endocrine disrupting properties: No data available.

12.7 Other adverse effects: Ingredient CAS# 67-56-1, Methanol:
No data available.

Ingredient CAS# 67-64-1, Acetone:

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life.

Section 13. Disposal Considerations

13.1 Waste Disposal Method:

Ingredient CAS# 78-93-3, Methyl ethyl ketone:

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).

Ingredient CAS# 67-56-1, Methanol:

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: Dispose of as unused product.

Ingredient CAS# 67-64-1, Acetone:

Contact a licensed professional waste disposal service to dispose of this material.

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: Ingredient CAS# 78-93-3, Methyl ethyl ketone:
ETHYL METHYL KETONE.

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
67-56-1	Methanol	No	Yes NA	Yes (3%)
67-64-1	Acetone	No	Yes NA	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 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 checked="" type="checkbox"/> Yes <input 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
67-56-1	Methanol	Yes: Part 5		Yes
67-64-1	Acetone	No	No	Yes

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	International Regulatory Lists
78-93-3	Methyl ethyl ketone	TSCA: Inventory CA TAC, Title 8: TAC: Cat. IIa, Title 8 NC TAP: Yes: NC TAP	Mexico INSQ: 1193 Japan ENCS: 2-542 Germany WHCS: 150: WGK 1 Switzerland Giffliste 1: G-2429 REACH: (P), 01-2119457290-43: Full
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	Japan ENCS: 7-322 Japan ISHL: 8-(1)-4744 Israel HSL: Cat. Germany WHCS: 145: WGK 1 Switzerland Giffliste 1: G-2063 REACH: (P), 01-2119433307-44: Full, Res. -

67-64-1 Acetone

TSCA: Inventory
CA TAC, Title 8: Title 869.
Japan ENCS: 2-542
Germany WHCS: 6: WGK 1
Switzerland Giftliste 1: G-1031
REACH: (P),
01-2119471330-49: Full

15.2 Chemical Safety

Assessment:

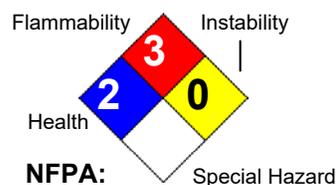
Section 16. Other Information

Revision Date: 03/07/2025

Hazard Rating System:

HEALTH		2
FLAMMABILITY		3
PHYSICAL		0
PPE		B

HMIS:



Additional Information About No data available.

This Product: