

Product Number: C50-0001-01  
Product Name: Cleaner, MEK

Date: 09/01/2024  
Revision: A

Based upon Regulation (EC) No 1907/2006 (REACH), as amended by Regulation (EU) 2020/878

## **Section 1: Identification of the substance/mixture and of the company/undertaking**

### **1.1 Product Identifier**

Product Name: Cleaner, MEK  
Registration Number: 01-2119457290-43-xxxx  
Product Code: C50-0001-01

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

Product Use: Printing ink for use in Printronix CIJ

### **1.3 Details of the supplier of the safety data sheet**

Printronix  
7700 Irvine Center Drive, Suite 700  
Irvine, CA 92618, United States  
(800) 665-6210

**For further information, please contact Customer Service:**  
customerservice@printronix.com

### **1.4 Emergency telephone number**

Emergency Contact: Local Poison Information Center  
Chem Tel. Inc. Toll Free 800-255-3924  
International 813-248-0585

## **Section 2: Hazards identification**

### **2.1 Classification of the mixture in accordance with Article 40 of Regulation (EC) No 1272/2008**

#### **GHS Rating:**

Flammable Liquids, Category 2  
Serious Eye Damage/Eye Irritation, Category 2A  
Specific Target Organ Toxicity (single exposure), Category 3

### **2.2 Label elements**

Labelling according to Regulation (EC) No 1272/2008 (CLP)



Signal word: Danger



# Safety Data Sheet

Date: 09/01/2024  
Revision: A

Product Number: C50-0001-01  
Product Name: Cleaner, MEK

## Hazard statements:

H225 - Highly flammable liquid and vapor.

H319 - Causes serious eye irritation.

H335 - May cause respiratory irritation.

## Precautionary statements:

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P233 - Keep container tightly closed.

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.

P264 - Wash hands thoroughly after handling.

P271 - Use only outdoors or in a well-ventilated area.

P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P303+361+353 - IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+351+338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P312 - Call a POISON CENTER or doctor/physician if you feel unwell.

P337+313 - If eye irritation persists, get medical advice/attention.

P405 - Store locked up.

P501 Dispose of contents/container to industrial combustion plant.

## Supplemental Hazard Information

### Hazardous Ingredients for Labelling

Methyl Ethyl Ketone

### 2.3 Other Hazards

Of no significance.

Date: 09/01/2024  
Revision: A

Product Number: C50-0001-01  
Product Name: Cleaner, MEK

### Section 3: Composition/information on ingredients

#### 3.1 Substance:

| Name of Substance   | Identifier  | Concentration | GHS Classification   |
|---------------------|---|---------------|--|
| Methyl Ethyl Ketone | CAS No: 78-93-3<br>EC No: 201-159-0<br>Index No: 606-002-00-3<br>REACH Reg. No: 01-2119457290-43-xxxx | 90.0-100.0    | Flam. Liq. 2: H225;<br>Eye Irrit. 2: H319;<br>STOT SE 3: H336; |

#### 3.2 Mixtures:

Not relevant

### Section 4: First Aid Measures

#### 4.1 Description of first aid measures

- Inhalation** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.
- Eyes:** In case of contact, immediately flush eyes with plenty of water for a t least 15 minutes. Get medical aid.
- Skin:** 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.
- 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.

#### 4.2 Most Important symptoms and effects, both acute and delayed

- Inhalation** No Data Available  
**Eye contact** No Data Available  
**Skin contact** No Data Available  
**Ingestion** No Data Available

#### 4.3 Indication of any immediate medical attention and special treatment needed

**Notes to doctor:** Treat symptomatically and supportively.

Product Number: C50-0001-01  
Product Name: Cleaner, MEK

Date: 09/01/2024  
Revision: A

### **Section 5: Fire Fighting Measures**

#### **5.1 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.

#### **5.2 Special hazards arising from the substance or mixture**

#### **5.3 Advice for firefighters**

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.

### **Section 6: Accidental release measures**

#### **6.1 Personal precautions, protective equipment and emergency procedures**

##### **6.1.1 For non-emergency personnel**

Evacuate

##### **6.1.2 For emergency responders**

Use proper personal protective equipment as indicated in Section 8.

#### **6.2 Environmental Precautions**

Avoid release to the environment.

#### **6.3 Methods and material for containment and cleaning up**

##### **6.3.1 For Containment:**

Remove all sources of ignition. Use a spark-proof tool. Provide ventilation.

##### **6.3.2 Clean up and disposal of spill:**

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.

## Section 7: Handling and storage

### 7.1 Precautions for safe handling

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.

### 7.2 Conditions for safe storage, including any compatibilities

Keep away from sources of ignition. Store in a cool, dry, well-ventilated area away from incompatible substances. Flammables-area.

### 7.3 Specific end use(s)

Fluid delivery to Printronix C100 Series CIJ. Follow safety instructions outlined in 7.1 & 7.2 while handling. Observe warnings provided with Printronix C100 Series CIJ system when installing and handling fluids.

## Section 8: Exposure control/personal protection

### 8.1 Control parameters

| CAS #   | Chemical Name       | Australia  | Austria  | Belgium  |
|---------|---------------------|--|--|--|
| 78-93-3 | Methyl Ethyl Ketone | TWA 150ppm<br>(445mg/m3) STEL<br>300ppm (890mg/m3) | TWA 100ppm<br>(295mg/m3) STEL<br>200ppm (590mg/m3) | TWA 200ppm<br>(600mg/m3) STEL<br>300ppm (900mg/m3) |

| CAS #   | Chemical Name       | Ontario, CA               | Québec, CA                                     | Denmark  |
|---------|---------------------|---------------------------|--|--|
| 78-93-3 | Methyl Ethyl Ketone | TWA 200ppm<br>STEL 300ppm | TWA 50ppm (150mg/m3)<br>STEL 100ppm (300mg/m3) | TWA 50ppm (145mg/m3)<br>STEL 100ppm (290mg/m3) |

| CAS #   | Chemical Name       | European Union                                     | Finland  | France   |
|---------|---------------------|--|--|--|
| 78-93-3 | Methyl Ethyl Ketone | TWA 200ppm<br>(600mg/m3) STEL<br>300ppm (900mg/m3) | TWA 20ppm<br>(60mg/m3) STEL<br>100ppm (300mg/m3) | TWA 200ppm<br>(600mg/m3) STEL<br>300ppm (900mg/m3) |



# Safety Data Sheet

Date: 09/01/2024

Product Number: C50-0001-01  
Product Name: Cleaner, MEK

Revision: A

| CAS #   | Chemical Name       | German AGS   | Germany DFG  | Hungary   |
|---------|---------------------|--|--|---|
| 78-93-3 | Methyl Ethyl Ketone | TWA 200ppm<br>(600mg/m <sup>3</sup> ) STEL<br>200ppm (600mg/m <sup>3</sup> ) | TWA 200ppm<br>(600mg/m <sup>3</sup> ) STEL<br>200ppm (600mg/m <sup>3</sup> ) | TWA (600mg/m <sup>3</sup> )<br>STEL (900mg/m <sup>3</sup> ) |

| CAS #   | Chemical Name       | Ireland  | Italy  | Latvia  |
|---------|---------------------|--|--|---|
| 78-93-3 | Methyl Ethyl Ketone | TWA 200ppm<br>(600mg/m <sup>3</sup> ) STEL<br>200ppm (600mg/m <sup>3</sup> ) | TWA 200ppm<br>(600mg/m <sup>3</sup> ) STEL<br>200ppm (600mg/m <sup>3</sup> ) | TWA 67ppm<br>(200mg/m <sup>3</sup> ) STEL<br>300ppm (900mg/m <sup>3</sup> ) |

| CAS #   | Chemical Name       | New Zealand  | PROC  | Poland  |
|---------|---------------------|--|---|---|
| 78-93-3 | Methyl Ethyl Ketone | TWA 150ppm<br>(445mg/m <sup>3</sup> ) STEL<br>300ppm (890mg/m <sup>3</sup> ) | TWA (300mg/m <sup>3</sup> )<br>STEL (600mg/m <sup>3</sup> ) | TWA (450mg/m <sup>3</sup> )<br>STEL (900mg/m <sup>3</sup> ) |

| CAS #   | Chemical Name       | Romania  | Singapore  | South Korea  |
|---------|---------------------|--|--|--|
| 78-93-3 | Methyl Ethyl Ketone | TWA 200ppm<br>(600mg/m <sup>3</sup> ) STEL<br>300ppm (900mg/m <sup>3</sup> ) | TWA 200ppm<br>(590mg/m <sup>3</sup> ) STEL<br>300ppm (885mg/m <sup>3</sup> ) | TWA 200ppm<br>(590mg/m <sup>3</sup> ) STEL<br>300ppm (885mg/m <sup>3</sup> ) |

| CAS #   | Chemical Name       | Spain  | Sweden   | Switzerland  |
|---------|---------------------|--|--|--|
| 78-93-3 | Methyl Ethyl Ketone | TWA 200ppm<br>(600mg/m <sup>3</sup> ) STEL<br>200ppm (600mg/m <sup>3</sup> ) | TWA 500ppm<br>(150mg/m <sup>3</sup> ) STEL<br>300ppm (900mg/m <sup>3</sup> ) | TWA 200ppm<br>(590mg/m <sup>3</sup> ) STEL<br>200ppm (590mg/m <sup>3</sup> ) |

| CAS #   | Chemical Name       | The Netherlands   | USA - NIOSH  | United Kingdom   |
|---------|---------------------|---|--|--|
| 78-93-3 | Methyl Ethyl Ketone | TWA (590mg/m <sup>3</sup> )<br>STEL (900mg/m <sup>3</sup> ) | TWA 200ppm<br>(500mg/m <sup>3</sup> ) STEL<br>300ppm (885mg/m <sup>3</sup> ) | TWA 200ppm<br>(600mg/m <sup>3</sup> ) STEL<br>300ppm (899mg/m <sup>3</sup> ) |

| CAS #   | Chemical Name       | OSHA PELs                             | ACGIH TLV                 | California, USA PELs  |
|---------|---------------------|---------------------------------------|---------------------------|---|
| 78-93-3 | Methyl Ethyl Ketone | TWA 200ppm<br>(590mg/m <sup>3</sup> ) | TWA 200ppm<br>STEL 300ppm | TWA 200ppm (500mg/m <sup>3</sup> )<br>STEL 300ppm (885mg/m <sup>3</sup> ) |

| CAS #   | Chemical Name       | Mexico               |
|---------|---------------------|----------------------|
| 78-93-3 | Methyl Ethyl Ketone | PPT 200ppm CT 300ppm |

Product Number: C50-0001-01  
Product Name: Cleaner, MEK

Date: 09/01/2024  
Revision: A

## 8.2 Exposure controls:

### 8.2.1 Appropriate engineering controls:

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 Individual protection measures, such as personal protective equipment

Wear appropriate protective clothing to prevent skin exposure. Choose body protection according to the amount and concentration of the dangerous substance at the workplace.

#### Eye/Face protection:

Face shield and safety glasses.

#### Skin protection:

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.

#### Respiratory protection:

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).

#### Hygienic Practices:

DO NOT SMOKE IN WORK AREA! Promptly remove contaminated clothing. Wash immediately if skin becomes contaminated. Do not eat or drink in work area while using this product. Wash thoroughly at the end of the workday, before eating and using the restroom.

Product Number: C50-0001-01  
 Product Name: Cleaner, MEK

Date: 09/01/2024  
 Revision: A

## Section 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

|                                   |  |   |                    |
|-----------------------------------|--|---|--------------------|
| <b>Appearance:</b>                | Clear Liquid (Upon aging, clear or colorless fluids may develop a slight yellow tint which will not affect the product performance). |   |                    |
| <b>Odor:</b>                      | Solvent  | <b>Odor threshold:</b>                        | No data available  |
| <b>pH:</b>                        | No data available  | <b>Melting point:</b>                         | -87.00C            |
| <b>Boiling range:</b>             | 80.00 C  | <b>Flash point:</b>                           | -3°C               |
| <b>Evaporation rate:</b>          | No data available  | <b>Upper Explosive Limit:</b>                 | 10.1%              |
|                                   |  | <b>Lower Explosive Limit:</b>                 | 1.8%               |
| <b>Flammability:</b>              | No data available  | <b>Vapor Pressure:</b>                        | 95 MM_HG at 20.0 C |
| <b>Vapor density:</b>             | 2.49   | <b>Relative Density:</b>                      | 0.8017             |
| <b>Solubility(ies):</b>           | Miscible   | <b>Partition coefficient n-octanol/water:</b> | 0.29               |
| <b>Auto-ignition temperature:</b> | No data available  | <b>Decomposition temperature:</b>             | No data available  |
| <b>Viscosity:</b>                 | No data available  |   |                    |
| <b>Explosive properties:</b>      | > 90.0 % Volatile by volume.   |   |                    |
| <b>Oxidizing properties:</b>      | No data available  |   |                    |

### 9.2 Other information:

|                     |                   |             |                   |
|---------------------|-------------------|-------------|-------------------|
| <b>Miscibility:</b> | No data available | <b>VOC:</b> | No data available |
|---------------------|-------------------|-------------|-------------------|

## Section 10: Stability and reactivity

### 10.1 Reactivity

No data available.

### 10.2 Chemical stability

Stable under normal conditions.

### 10.3 Possibility of hazardous reactions

Will not occur

### 10.4 Conditions to avoid:

Ignition sources, Excess heat.

### 10.5 Incompatible materials:

Strong oxidizing agents, Strong acids, 2-propanol

### 10.6 Hazardous decomposition products



Date: 09/01/2024

Revision: A

Product Number: C50-0001-01

Product Name: Cleaner, MEK

Carbon monoxide, Carbon dioxide.

**Section 11: Toxicological information****11.1 Information on Toxicological effects****Acute toxicity:** Acute toxicity, LD50, Intraperitoneal, Mouse, 616.0 MG/KG.

Result:

Lungs, Thorax, or Respiration: Sputum.

Biochemical: Metabolism (Intermediary): Other proteins.

Biochemical: Metabolism (intermediary): Effect on inflammation or mediation of inflammation.

- Shell Chemical Company. Unpublished Report., Vol/p/yr: -,6, 1961

Acute toxicity, LD50, Skin, Species: Rabbit, 6480. MG/KG.

Result:

Lungs, Thorax, or Respiration: Other changes.

Biochemical: Metabolism (intermediary): Effect on inflammation or mediation of inflammation.

- Shell Chemical Company., Vol/p/yr: MSDS-5390-,

Acute toxicity, LC50, Inhalation, Mouse, 32.00 MG/M3.

Result:

Brain and Coverings: Other degenerative changes.

Biochemical: Metabolism (intermediary): Effect on inflammation or mediation of inflammation.

Acute toxicity, LD50, Intraperitoneal, Species: Guinea pig, 2.000 GM/KG.

Result:

Immunological Including Allergic: Increase in humoral immune response.

**Skin****corrosion/irritation:** No data available**Serious eye damage/irritation:** No data available**Respiratory or skin sensitization:** No data available**Germ cell****mutagenicity:** Mutagenic effects have occurred in experimental animals.**Carcinogenicity:** CAS# 78-93-3: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Date: 09/01/2024  
Revision: A

Product Number: C50-0001-01  
Product Name: Cleaner, MEK

**Reproductive toxicity:** No data available  
**STOT-single exposure:** No data available  
**STOT-repeated exposure:** No data available  
**Aspiration hazard** No data available

**11.1.1 Hazard Class information:**

No data available

**11.1.2 Mixture toxicity:**

No data available

**11.1.3 Critical studies:**

No data available

**11.1.4 Non-compliance hazard class:**

No data available

**11.1.5 Information on likely routes of exposure:**

No data available

**11.1.6 Symptoms related to the physical, chemical and toxicological characteristics:**

No data available

**11.1.7 Delayed and immediate effects as well as chronic effects from short and long-term exposure:**

No data available

**11.1.8 Interactive effects:**

No data available

**11.1.9 Absence of specific data:**

No data available

**11.1.10 Mixtures:**

No data available

**11.1.11 Mixture vs Substance information:**

No data available

**11.1.12 Other information:**

No data available

## **Section 12: Ecological information**

**12.1 Toxicity:**



# Safety Data Sheet

Date: 09/01/2024

Revision: A

Product Number: C50-0001-01

Product Name: Cleaner, MEK

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.

**12.2 Persistence and degradability:**

No data available

**12.3 Bio accumulative potential:**

No data available

**12.4 Mobility in soil:**

No data available

**12.5 Results of PBT and vPvB assessment:**

No data available

**12.6 Other adverse effects:**

No data available

**Section 13: Disposal considerations**

**13.1 Waste treatment methods:**

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:

Waste number U159 (Ignitable waste, Toxic waste).

**Section 14: Transport information**

|      |                       |                               |
|------|-----------------------|-------------------------------|
| 14.1 | UN number:            | 1210                          |
| 14.2 | Proper shipping name: |                               |
|      | US DOT:               | Printing Ink Related Material |



# Safety Data Sheet

Date: 09/01/2024

Product Number: C50-0001-01  
Product Name: Cleaner, MEK

Revision: A

|   |  |
|---|--|
| <b>Canadian TDG:</b>  | Printing ink, [flammable or] Printing ink related material [(including printing ink thinning or reducing compound), flammable] |
| <b>European ADR/RID:</b>  | Printing ink, [flammable or] Printing ink related material [(including printing ink thinning or reducing compound), flammable] |
| <b>IMDG/IMO:</b>  | Printing ink, [flammable or] Printing ink related material [(including printing ink thinning or reducing compound), flammable] |
| <b>ICAO/IATA:</b>   | Printing ink, [flammable or] Printing ink related material [(including printing ink thinning or reducing compound), flammable] |
| <b>14.3 Transport hazard class(es):</b>   | 3 - FLAMMABLE LIQUID   |
| <b>14.4 Packing group:</b>  | II   |
| <b>14.5 Environmental hazards:</b>  | N/A  |
| <b>14.6 Special precautions for user:</b>                                       | N/A  |
| <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code:</b> | N/A  |

## 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 | S. 302 (EHS) | S. 304 RQ | S. 313 (TRI) |
| 78-93-3   | Methyl Ethyl Ketone  | -            | -         | -            |

| CAS #   | Hazardous components | TSCA   | REACH | CERCLA  |
|---------|----------------------|--------|-------|---------|
| 78-93-3 | Methyl Ethyl Ketone  | Active | -     | 5000lbs |

California Environmental Protection Agency (Cal/EPA): Proposition 65 - Safe Drinking Water and Toxic Enforcement Act of 1987

None



# Safety Data Sheet

Product Number: C50-0001-01  
Product Name: Cleaner, MEK

Date: 09/01/2024  
Revision: A

## **Section 16: Other information**

### **Company Disclaimer:**

The information and recommendations contained herein are, to the best of Printronix knowledge and belief, accurate and reliable as of the date issued. Because many factors may affect processing or application/use, Printronix recommend that you make tests to determine the suitability of a product for your particular purpose prior to use. It is the user's responsibility to satisfy itself that the product is suitable for the intended use. If buyer repackages this product, it is the user's responsibility to ensure proper health, safety and other necessary information is included with and/or on the container. Appropriate warnings and safe-handling procedures should be provided to handlers and users. Alteration of this document is strictly prohibited. Except to the extent required by law, re-publication or retransmission of this document, in whole or in part, is not permitted. In no case shall the descriptions, information, data or designs provided be considered a part of our terms and conditions of sale. Further, you expressly understand and agree that the descriptions, designs, data and information furnished by Printronix hereunder are given gratis and Printronix assumes no obligation or liability f o r the description, designs, data and information given or results obtained. All such being given and accepted at your risk.