

PRINTRONIX®

Safety Data Sheet

C51-0001-03 Ink MEK Black

According to Regulation (EC) No. 1907/2006 as amended by (EC) No. 2020/878; US OSHA 29CFR 1910.1200.

Version 1.0 • Date of issue: 09-01-2024

SECTION 1: Identification

1.1 GHS Product identifier

| | |
|----------------|---|
| Product name | 51-0001-03 Ink MEK Black |
| Product number | C51-0001-03 |
| Brand | Printronix (REACH Registration number not relevant - mixture) |

1.3 Recommended use of the chemical and restrictions on use

Uses advised against - Do not use for products which come in contact with foodstuffs. Do not use for private purposes (household)

1.4 Supplier's details

| | |
|-----------|---|
| Name | Printronix |
| Address | 7700 Irvine Center Drive, Suite 700 Irvine, CA 92618 USA |
| Telephone | (714) 368-2300 |
| Email | customerservice@printronix.com |

1.5 Emergency phone number

| | |
|--------------------------|--------------|
| Chem Tel. Inc. Toll Free | 800-255-3924 |
| International | 813-248-0585 |

SECTION 2: Hazard identification

General hazard statement

Hazardous ingredients for labelling:

Methyl Ethyl Ketone
Isopropyl alcohol
Acetone
Nitrocellulose
Diisobutyl ketone

2.1 Classification of the substance or mixture

- Eye damage/irritation, Cat. 2A
- Specific target organ toxicity (single exposure), Cat. 3
- Flammable liquids, Cat. 2
- Hazardous to the aquatic environment, short-term (acute), Cat. 1
- Hazardous to the aquatic environment, long-term (chronic), Cat. 1

2.2 GHS label elements, including precautionary statements.

Pictograms



Signal word

Danger

Hazard statement(s)

| | |
|------|--|
| H335 | May cause respiratory irritation. |
| H336 | May cause drowsiness or dizziness. |
| H225 | Highly flammable liquid and vapor |
| H319 | Causes serious eye irritation. |
| H400 | Very toxic to aquatic life |
| H410 | Very toxic to aquatic life with long lasting effects |

Precautionary statement(s)

| | |
|----------------|---|
| P261 | Avoid breathing dust/fume/gas/mist/vapors/spray. |
| P264 | Wash ... thoroughly after handling. |
| P271 | Use only outdoors or in a well-ventilated area. |
| P280 | Wear eye protection/face protection/protective gloves. |
| P304+P340 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. |
| P305+P351+P338 | 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/doctor/.../ if you feel unwell. |
| P337+P313 | If eye irritation persists: Get medical advice/attention. |
| P403+P233 | Store in a well-ventilated place. Keep container tightly closed. |
| P405 | Store locked up. |
| P501 | Dispose of contents/container to ... |
| 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. |
| P303+P361+P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. |
| P370+P378 | In case of fire: Use ... to extinguish. |
| P403+P235 | Store in a well-ventilated place. Keep cool. |

2.3 Other hazards which do not result in classification.

Results of PBT and vPvB assessments : Does not contain a PBT-/vPvB substance in a concentration of $\geq 0,1\%$.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

1. METHYL ETHYL KETONE

| | |
|-----------------------------|------------------------|
| Concentration | 43.5 - 69.5 % (weight) |
| EC no. | 201-159-0 |
| CAS no. | 78-93-3 |
| Index no. | 606-002-00-3 |
| REACH registration no. (EU) | 01-2119457290-43-xxxx |

- Flammable liquids, Cat. 2
- Specific target organ toxicity (single exposure), Cat. 3
- Eye damage/irritation, Cat. 2A

| | |
|------|------------------------------------|
| H225 | Highly flammable liquid and vapor |
| H319 | Causes serious eye irritation. |
| H336 | May cause drowsiness or dizziness. |

2. Ethanol

| | |
|-----------------------------|---------------------------|
| Concentration | 14.295 - 28.59 % (weight) |
| EC no. | 200-578-6 |
| CAS no. | 64-17-5 |
| Index no. | 603-002-00-5 |
| REACH registration no. (EU) | 01-2119457610-43 |

- Flammable liquids, Cat. 2

| | |
|------|-----------------------------------|
| H225 | Highly flammable liquid and vapor |
|------|-----------------------------------|

3. Isopropanol alcohol

| | |
|-----------------------------|-------------------------|
| Concentration | 1.33 - 4.035 % (weight) |
| EC no. | 200-661-7 |
| CAS no. | 67-63-0 |
| Index no. | 603-117-00-0 |
| REACH registration no. (EU) | 01-2119457558-25 |

- Flammable liquids, Cat. 2
- Eye damage/irritation, Cat. 2A
- Specific target organ toxicity (single exposure), Cat. 3
- Specific target organ toxicity (repeated exposure), Cat. 2

- Eye damage/irritation, Cat. 1
- Hazardous to the aquatic environment, short-term (acute), Cat. 1
- Hazardous to the aquatic environment, long-term (chronic), Cat. 1

| | |
|------|--|
| H225 | Highly flammable liquid and vapor |
| H318 | Causes serious eye damage. |
| H319 | Causes serious eye irritation. |
| H335 | May cause respiratory irritation. |
| H336 | May cause drowsiness or dizziness. |
| H373 | May cause damage to organs [organs] through prolonged or repeated exposure [route] |
| H400 | Very toxic to aquatic life |
| H410 | Very toxic to aquatic life with long lasting effects |

4. Acetone

| | |
|-----------------------------|------------------|
| Concentration | 1 - 5 % (weight) |
| EC no. | 200-662-2 |
| CAS no. | 67-64-1 |
| Index no. | 606-001-00-8 |
| REACH registration no. (EU) | 01-2119471330-49 |

- Flammable liquids, Cat. 2
- Specific target organ toxicity (single exposure), Cat. 3
- Eye damage/irritation, Cat. 2A

| | |
|------|------------------------------------|
| H225 | Highly flammable liquid and vapor |
| H319 | Causes serious eye irritation. |
| H336 | May cause drowsiness or dizziness. |

5. Nitrocellulose

| | |
|---------------|--------------------------|
| Concentration | 1.625 - 5.625 % (weight) |
| CAS no. | 9004-70-0 |

| | |
|------|----------------------------------|
| H201 | Explosive; mass explosion hazard |
|------|----------------------------------|

6. BUTYLATED HYDROXYTOLUENE

| | |
|-----------------------------|--------------------|
| Concentration | 0.1 - 1 % (weight) |
| EC no. | 204-881-4 |
| CAS no. | 128-37-0 |
| REACH registration no. (EU) | 01-2119480433-40 |

| | |
|------|--|
| H400 | Very toxic to aquatic life |
| H410 | Very toxic to aquatic life with long lasting effects |

7. DIISOBUTYL KETONE

| | |
|-----------------------------|---------------------|
| Concentration | 0.06 - 1 % (weight) |
| EC no. | 203-620-1 |
| CAS no. | 108-83-8 |
| Index no. | 606-005-00-X |
| REACH registration no. (EU) | 01-2119474441-41 |

- Flammable liquids, Cat. 3
- Specific target organ toxicity (single exposure), Cat. 3

| | |
|------|-----------------------------------|
| H226 | Flammable liquid and vapor |
| H335 | May cause respiratory irritation. |

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

| | |
|-------------------------|--|
| General advice | Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area. Do not leave the affected person unattended. remove the victim out of the danger area. Keep the affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth. |
| If inhaled | If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician. |
| In case of skin contact | Wash off with soap and plenty of water. |
| In case of eye contact | Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention/advice. Acute and delayed symptoms and effects: Causes serious eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision. |
| If swallowed | Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician. |

4.2 Most important symptoms/effects, acute and delayed.

Narcotic effects

4.3 Indication of immediate medical attention and special treatment needed, if necessary

No data available.

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media

Water spray, BC-powder, Carbon dioxide (CO₂)
Unsuitable extinguishing media - water jet

5.2 Specific hazards arising from the chemical

In case of insufficient ventilation and/or in use, may form flammable/explosive vapor-air mixture. Solvent vapors are heavier than air and may spread along floors. Places which are not ventilated, e.g., unventilated below ground level areas such as trenches, conduits, and shafts, are particularly prone to the presence of flammable substances or mixtures.

Hazardous combustion products:

Nitrogen oxides (NO_x), Carbon monoxide (CO), Carbon dioxide (CO₂)

Ethanol: Carbon oxides

5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

In case of fire and/or explosion do not breathe fumes. Coordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas. For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up.

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).

Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Use local and general ventilation. Avoidance of ignition sources. Keep away from sources of ignition - No smoking. Take precautionary measures against static discharge. Use only in well-ventilated areas. Due to danger of explosion, prevent leakage of vapors into cellars, flues, and ditches. Ground/bond container and receiving equipment. Use explosion proof electrical/ventilating/lighting/equipment. Use only non-sparking tools.

7.2 Conditions for safe storage, including any incompatibilities.

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Storage class (TRGS 510): Flammable liquids

Only packaging which is approved (e.g., acc. to the Dangerous Goods Regulations) may be used.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

| | | | | |
|----------------------------|---------------------------|-------------------|--------------------------|-------------------|
| Substance | Butan-2-one | | | |
| CAS No. | 78-93-3 | | | |
| Remarks | Methyl Ethyl Ketone (MEK) | | | |
| | Limit value - Eight hours | | Limit value - short term | |
| | ppm | mg/m ³ | ppm | mg/m ³ |
| Australia | 150 | 445 | 300 | 890 |
| Austria | 100 | 295 | 200 | 590 |
| Belgium | 200 | 600 | 300 (1) | 900 (1) |
| Canada - Ontario | 200 | | 300 | |
| Canada - Québec | 50 | 150 | 100 (1) | 300 (1) |
| Denmark | 50 (1) | 145 (1) | 100 (1)(2) | 290 (1)(2) |
| European Union | 200 | 600 | 300 (1) | 900 (1) |
| Finland | 20 | 60 | 100 (1) | 300 (1) |
| France | 200 | 600 | 300 (1) | 900 (1) |
| Germany (AGS) | 200 (1) | 600 (1) | 200 (1)(2) | 600 (1)(2) |
| Germany (DFG) | 200 (1) | 600 (1) | 200 (1)(2) | 600 (1)(2) |
| Hungary | | 600 (1) | | 900 (1)(2) |
| Ireland | 200 | 600 | 300 (1) | 900 (1) |
| Israel | 200 | 590 | | |
| Italy | 200 | 600 | 300 (1) | 900 (1) |
| Japan (MHLW) | 200 | | | |
| Japan (JSOH) | 200 | 590 | | |
| Latvia | 67 | 200 | 300 (1) | 900 (1) |
| New Zealand | 150 | 445 | 300 | 890 |
| Norway | 75 | 220 | | |
| People's Republic of China | | 300 | | 600 (1) |
| Poland | | 450 (1) | | 900 (1)(2) |
| Romania | 200 | 600 | 300 (1) | 900 (1) |

| | | | | |
|---------------------|---------|---------|------------|------------|
| Singapore | 200 | 590 | 300 | 885 |
| South Africa | 400 (1) | | 600 (1)(2) | |
| South Africa Mining | 200 (1) | 600 (1) | 300 (1)(2) | 900 (1)(2) |
| South Korea | 200 | | 300 (1) | |
| Spain | 200 | 600 | 300 | 900 |
| Sweden | 50 | 150 | 300 (1) | 900 (1) |
| Switzerland | 200 | 590 | 200 | 590 |
| The Netherlands | 197 (1) | 590 (1) | 300 (1)(2) | 900 (1)(2) |
| Turkey | 200 | 600 | 300 (1) | 900 (1) |
| USA - NIOSH | 200 | 590 | 300 (1) | 885 (1) |
| USA - OSHA | 200 | 590 | | |
| United Kingdom | 200 (1) | 600 (1) | 300 (1)(2) | 899 (1)(2) |

| | Remarks |
|----------------------------|---|
| Belgium | (1) 15 minutes average value |
| Canada - Québec | (1) 15 minutes average value |
| Denmark | (1) Skin (2) 15 minutes average value |
| European Union | (1) 15 minutes average value Bold-type: Indicative Occupational Exposure Limit Value (IOELV) |
| Finland | (1) 15 minutes average value |
| France | Bold type: Restrictive statutory limit values Skin (1) 15 minutes average value |
| Germany (AGS) | (1) Skin (2) 15 minutes average value |
| Germany (DFG) | (1) Skin (2) 15 minutes average value |
| Hungary | (1) Skin (2) 15 minutes average value |
| Ireland | (1) 15 minutes reference period |
| Italy | (1) 15 minutes average value |
| Latvia | (1) 15 minutes average value |
| People's Republic of China | (1) 15 minutes average value |
| Poland | (1) Skin (2) 15 minutes average value |
| Romania | (1) 15 minutes average value |
| South Africa | (1) Skin (2) 15 minutes average value |
| South Africa Mining | (1) Skin (2) 15 minutes average value |
| South Korea | (1) 15 minutes average value |
| Sweden | (1) 15 minutes average value |
| The Netherlands | (1) Skin (2) 15 minutes average value |
| Turkey | (1) 15 minutes average value |
| USA - NIOSH | (1) 15 minutes average value |
| United Kingdom | (1) Skin (2) 15 minutes average value |

Safety Data Sheet
C51-0001-03 Ink MEK

Version 1.0 • Date of issue:09-01-2024

| | |
|------------------|---------|
| Substance | Ethanol |
| CAS No. | 64-17-5 |

| | Limit value - Eight hours | | Limit value - Short term | |
|-------------------------|---------------------------|-------------------|--------------------------|-------------------|
| | ppm | mg/m ³ | ppm | mg/m ³ |
| Australia | 1000 | 1880 | | |
| Austria | 1000 | 1900 | 2000 | 3800 |
| Belgium | 1000 | 1907 | | |
| <u>Canada - Ontario</u> | | | 1000 | |
| <u>Canada - Québec</u> | | | 1000 (1) | |
| Denmark | 1000 | 1900 | 2000 | 3800 |
| Finland | 1000 | 1900 | 1300 (1) | 2500 (1) |
| France | 1000 | 1900 | 5000 | 9500 |
| Germany (AGS) | 200 | 380 | 800 (1) | 1520 (1) |
| Germany (DFG) | 200 | 380 | 800 (1) | 1520 (1) |
| Hungary | | 1900 | | 3800 (1) |
| <u>Ireland</u> | | | 1000 (1) | |
| <u>Latvia</u> | | 1000 | | |
| New Zealand | 1000 | 1880 | | |
| Norway | 500 | 950 | | |
| <u>Poland</u> | | 1900 | | |
| Romania | 1000 | 1900 | 5000 (1) | 9500 (1) |
| Singapore | 1000 | 1880 | | |
| <u>South Africa</u> | | | 2000 (1) | |
| South Africa Mining | 1000 | 1900 | | |
| <u>South Korea</u> | 1000 | | | |
| Spain | | | 1000 | 1910 |
| Sweden | 500 | 1000 | 1000 (1) | 1900 (1) |
| Switzerland | 500 | 960 | 1000 | 1920 |
| The Netherlands | | 260 (1) | | 1900 (1)(2) |
| USA - NIOSH | 1000 | 1900 | | |
| USA - OSHA | 1000 | 1900 | | |
| United Kingdom | 1000 | 1920 | | |

| |
|----------------|
| Remarks |
|----------------|

| | |
|-----------------|---------------------------------------|
| Canada - Québec | (1) 15 minutes average value |
| Finland | (1) 15 minutes average value |
| Germany (AGS) | (1) 15 minutes average value |
| Germany (DFG) | (1) 15 minutes average value |
| Hungary | (1) 15 minutes average value |
| Ireland | (1) 15 minutes reference period |
| Romania | (1) 15 minutes average value |
| South Africa | (1) Ceiling limit value |
| Sweden | (1) 15 minutes average value |
| The Netherlands | (1) Skin (2) 15 minutes average value |

| | |
|------------------|-------------|
| Substance | Propan-2-ol |
| CAS No. | 67-63-0 |

| | Limit value - Eight hours | | Limit value - short term | |
|----------------------------|---------------------------|-------------------|--------------------------|-------------------|
| | ppm | mg/m ³ | ppm | mg/m ³ |
| Australia | 400 | 983 | 500 | 1230 |
| Austria | 200 | 500 | 800 | 2000 |
| Belgium | 200 | 500 | 400 (1) | 1000 (1) |
| Canada - Ontario | 200 | | 400 | |
| Canada - Québec | 200 | | 400 (1) | |
| Denmark | 200 | 490 | 400 | 980 |
| Finland | 200 | 500 | 250 (1) | 620 (1) |
| France | | | 400 | 980 |
| Germany (AGS) | 200 | 500 | 400 (1) | 1000 (1) |
| Germany (DFG) | 200 | 500 | 400 (1) | 1000 (1) |
| Hungary | | 500 (1) | | 1000 (1)(2) |
| Ireland | 200 | | 400 (1) | |
| Japan (MHLW) | 200 | | | |
| Japan (JSOH) | 400 (1) | 980 (1) | | |
| Latvia | | 350 | | 600 (1) |
| New Zealand | 400 | 983 | 500 | 1230 |
| Norway | 100 | 245 | | |
| People's Republic of China | | 350 | | 700 (1) |
| Poland | | 900 (1) | | 1200 (1)(2) |
| Romania | 81 | 200 | 203 (1) | 500 (1) |

| | | | | |
|---------------------|-----|-----|---------|----------|
| Singapore | 400 | 983 | 500 | 1230 |
| South Africa | 400 | | 800 (1) | |
| South Africa Mining | 400 | 980 | 500 (1) | 1225 (1) |
| South Korea | 200 | | 400 (1) | |
| Spain | 200 | 500 | 400 | 1000 |
| Sweden | 150 | 350 | 250 (1) | 600 (1) |
| Switzerland | 200 | 500 | 400 | 1000 |
| USA - NIOSH | 400 | 980 | 500 (1) | 1225 (1) |
| USA - OSHA | 400 | 980 | | |
| United Kingdom | 400 | 999 | 500 (1) | 1250 (1) |

| | Remarks |
|----------------------------|--|
| Belgium | (1) 15 minutes average value |
| Canada - Québec | (1) 15 minutes average value |
| Finland | (1) 15 minutes average value |
| Germany (AGS) | (1) 15 minutes average value |
| Germany (DFG) | (1) 15 minutes average value |
| Hungary | (1) Skin (2) 15 minutes average value |
| Ireland | (1) 15 minutes reference period |
| Japan (JSOH) | (1) Occupational exposure limit ceiling: Reference value to the maximal exposure concentration of the substance during a working day |
| Latvia | (1) 15 minutes average value |
| People's Republic of China | (1) 15 minutes average value |
| Poland | (1) Skin (2) 15 minutes average value |
| Romania | (1) 15 minutes average value |
| South Africa | (1) 15 minutes average value |
| South Africa Mining | (1) 15 minutes average value |
| South Korea | (1) 15 minutes average value |
| Sweden | (1) 15 minutes average value |
| USA - NIOSH | (1) 15 minutes average value |
| United Kingdom | (1) 15 minutes average value |

| | |
|------------------|---------|
| Substance | Acetone |
| CAS No. | 67-64-1 |

| | | |
|--|---------------------------|--------------------------|
| | Limit value - Eight hours | Limit value - short term |
|--|---------------------------|--------------------------|

Safety Data Sheet
C51-0001-03 Ink MEK

Version 1.0 • Date of issue:09-01-2024

| | ppm | mg/m ³ | ppm | mg/m ³ |
|----------------------------|------------|-------------------|-------------|-------------------|
| Australia | 500 | 1185 | 1000 | 2375 |
| Austria | 500 | 1200 | 2000 | 4800 |
| Belgium | 246 | 594 | 492 (1) | 1187 (1) |
| Canada - Ontario | 250 | | 500 (1) | |
| Canada - Québec | 250 | | 500 (1) | |
| Denmark | 250 | 600 | 500 | 1200 |
| European Union | 500 | 1210 | | |
| Finland | 500 | 1200 | 630 (1) | 1500 (1) |
| France | 500 | 1210 | 1000 | 2420 |
| Germany (AGS) | 500 | 1200 | 1000 (1) | 2400 (1) |
| Germany (DFG) | 500 | 1200 | 1000 (1) | 2400 (1) |
| <u>Hungary</u> | | 1210 | | |
| Ireland | 500 | 1210 | | |
| Italy | 500 | 1210 | | |
| <u>Japan (MHLW)</u> | 500 | | | |
| Japan (JSOH) | 200 | 470 | | |
| Latvia | 500 | 1210 | | |
| New Zealand | 500 | 1185 | 1000 | 2375 |
| Norway | 125 | 295 | | |
| People's Republic of China | | 300 | | 450 (1) |
| Poland | | 600 | | 1800 (1) |
| Romania | 500 | 1210 | | |
| Singapore | 750 | 1780 | 1000 | 2380 |
| South Africa | 500 | | 1000 (1) | |
| South Africa Mining | 500 | 1185 | 1000 (1) | 2375 (1) |
| South Korea | 500 | | 750 (1) | |
| Spain | 500 | 1210 | | |
| Sweden | 250 | 600 | 500 (1) | 1200 (1) |
| Switzerland | 500 | 1200 | 1000 | 2400 |
| The Netherlands | 500 | 1210 | 1000 (1) | 2420 (1) |
| Turkey | 500 | 1210 | | |
| USA - NIOSH | 250 | 590 | | |
| USA - OSHA | 1000 | 2400 | | |
| United Kingdom | 500 | 1210 | 1500 (1) | 3620 (1) |

Remarks

| | |
|----------------------------|--|
| Belgium | (1) 15 minutes average value |
| Canada - Ontario | (1) 15 minutes average value |
| Canada - Québec | (1) 15 minutes average value |
| European Union | Bold type: Indicative Occupational Exposure Limit Value (IOELV) |
| Finland | (1) 15 minutes average value |
| France | Bold type: Restrictive statutory limit values |
| Germany (AGS) | (1) 15 minutes average value |
| Germany (DFG) | (1) 15 minutes average value |
| People's Republic of China | (1) 15 minutes average value |
| Poland | (1) 15 minutes average value |
| South Africa | (1) 15 minutes average value |
| South Africa Mining | (1) 15 minutes average value |
| South Korea | (1) 15 minutes average |
| Sweden | (1) 15 minutes average value |
| The Netherlands | (1) 15 minutes average value |
| United Kingdom | (1) 15 minutes average value |

| | |
|------------------|----------------------------|
| Substance | 2,6-Di-tert-butyl-p-cresol |
| CAS No. | 128-37-0 |

| | Limit value - Eight hours | | Limit value - Short term | |
|-------------------------------------|---------------------------|-------------------|--------------------------|-------------------|
| | ppm | mg/m ³ | ppm | mg/m ³ |
| Australia | | 10 | | |
| Austria | | 10 | | |
| Belgium | | 2 (1) | | |
| Canada - Ontario | | 2 (1) | | |
| Canada - Québec | | 2 (1) | | |
| Denmark | | 10 | | 20 |
| Finland | | 10 | | 20 (1) |
| France | | 10 | | |
| Germany (AGS) | | 10 (1) | | 40 (1)(2) |
| Germany (DFG) | | 10 (1) | | 40 (1)(2) |
| Ireland | | 2 | | |
| New Zealand | | 10 | | |
| Singapore | | 10 | | |
| South Africa Mining | | 10 | | |

| | |
|--------------------------------|-----------------------|
| South Korea | 2 (1) |
| Spain | 10 |
| Switzerland | 10 inhalable aerosols |
| USA - NIOSH | 10 |
| United Kingdom | 10 |

| | Remarks |
|------------------|---|
| Belgium | (1) Inhalable fraction and vapor |
| Canada - Ontario | (1) Inhalable aerosol and vapor |
| Canada - Québec | (1) Inhalable fraction and vapor |
| Finland | (1) 15 minutes average value |
| Germany (AGS) | (1) Inhalable aerosol and vapor (2) 15 minutes reference period |
| Germany (DFG) | (1) Inhalable fraction and vapor (2) 15 minutes average value |
| South Korea | (1) Inhalable fraction |

| | |
|------------------|--------------------------|
| Substance | 2,6-Dimethylheptan-4-one |
| CAS No. | 108-83-8 |

| | Limit value - Eight hours | | Limit value - Short term | |
|--|---------------------------|-------------------|--------------------------|-------------------|
| | ppm | mg/m ³ | ppm | mg/m ³ |
| Australia | 25 | 145 | | |
| Austria | 50 | 290 | | |
| Belgium | 25 | 147 | | |
| Canada - Ontario | 25 | | | |
| Canada - Québec | 25 | 145 | | |
| Denmark | 25 | 150 | 50 | 300 |
| Finland | 25 | 150 | 40 (1) | 240 (1) |
| France | 25 | 250 | | |
| Ireland | 25 | 150 | | |
| New Zealand | 25 | 145 | | |
| Norway | 20 | 120 | | |
| People's Republic of China | | 145 | | |
| Poland | | 150 | | 300 (1) |
| Romania | 26 | 150 | 43 (1) | 250 (1) |
| Singapore | 25 | 145 | | |
| South Africa | 50 | | | |

| | | |
|---------------------|----|-----|
| South Africa Mining | 25 | 150 |
| South Korea | 25 | |
| Spain | 25 | 148 |
| Switzerland | 25 | 150 |
| USA - NIOSH | 25 | 150 |
| USA - OSHA | 50 | 290 |
| United Kingdom | 25 | 148 |

| | Remarks |
|---------|------------------------------|
| Finland | (1) 15 minutes average value |
| Poland | (1) 15 minutes average value |
| Romania | (1) 15 minutes average value |

8.2 Exposure Controls.

8.2.1 Engineering Controls (Ventilation etc.)

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

8.2.2 Personal protection equipment.

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).

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. Full contact.

Material: Nitrile rubber, Minimum layer thickness: 0.4 mm, Break through time: 480 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. Splash contact:

Material: butyl-rubber Minimum layer thickness: 0.3 mm Break through time: 292 min. Impervious clothing. Flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and number of dangerous substances at the specific workplace.

Respiratory Equipment Where risk assessment shows air-purifying respirators are appropriate use 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).

8.2.3 Environmental Exposure Controls.

Do not let product enter drains. Discharge into the environment must be avoided.

SECTION 9: Physical and chemical properties

| | |
|--|-------------------------|
| Appearance (physical state, color, etc.) | |
| Odor | Pungent |
| Odor threshold | No data available. |
| pH | No data available. |
| Melting point/freezing point | -94.00 – 137.00C |
| Initial boiling point and boiling range | 56.00 C – 265.00 C |
| Flash point | >-17.00C |
| Evaporation rate | No data available. |
| Flammability (solid, gas) | No data available. |
| Upper/lower flammability or explosive limits | No data available. |
| Vapor pressure | 7 hPa at 30°C |
| Vapor density | No data available. |
| Relative density | 0.8844 G/ML 7.38 lb/gal |
| Solubility(ies) | No data available. |
| Partition coefficient: n-octanol/water | No data available. |
| Auto-ignition temperature | >345.00 °C |
| Decomposition temperature | |
| Viscosity | No data available. |

Additional properties

| | |
|----------------------|--------|
| Physical state | Liquid |
| Color | Black |
| Explosive properties | None |
| Oxidizing properties | None |

Supplemental information regarding physical hazard classes

Percent Volatile >70.0%

SECTION 10: Stability and reactivity

10.1 Reactivity

Concerning incompatibility: see below "conditions to avoid" and "incompatible materials". The mixture contains reactive substance(s). Risk of ignition.

10.2 Chemical stability

See below "conditions to avoid."

10.3 Possibility of hazardous reactions

None under normal use conditions.

10.4 Conditions to avoid.

Avoid storing in direct sunlight and avoid extremes of temperature.
Heat, flames, and sparks.

10.5 Incompatible materials

Oxidizers

Ethanol: Alkali metals, Oxidizing agents, Peroxides

Isopropanol: Oxidizing agents, Acid anhydrides, Aluminum, Halogenated compounds, Acids

Acetone: Bases, oxidizing agents, reducing agents, Acetone reacts violently with phosphorous oxychloride.

10.6 Hazardous decomposition products

Other decomposition products - No data available in the event of fire: see section 5.

Isopropanol: Hazardous decomposition products formed under fire conditions. - Carbon oxides

Other decomposition products - No data available

In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Test data not available for complete mixture

Shall not be classified as acutely toxic.

GHS of the United Nations, annex 4: May be harmful if swallowed.

Ethanol: ACGIH: A3 Confirmed animal carcinogen with unknown relevance to humans.

Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

Serious eye damage/irritation

Causes serious eye irritation.

Respiratory or skin sensitization

Shall not be classified as a respiratory or skin sensitizer.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

Shall not be classified as carcinogenic.

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

Specific target organ toxicity (STOT) - single exposure

May cause drowsiness or dizziness.

Specific target organ toxicity (STOT) - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

Additional information

Repeated exposure may cause skin dryness or cracking.

Ethanol: Stomach - Irregularities - Based on Human Evidence

SECTION 12: Ecological information

Toxicity

No data available.

Persistence and degradability

No data available. Biodegradability result: 91% readily biodegradable.

Bio accumulative potential

No data available on product

Mobility in soil

No data available

Results of PBT and vPvB assessment

Results of PBT and vPvB assessments: Does not contain a PBT-/vPvB substance in a concentration of $\geq 0,1\%$.

Other adverse effects

No data available

SECTION 13: Disposal considerations

Disposal methods

Product disposal

Solvent reclamation/regeneration.

Packaging disposal

Dispose of unused products.

Waste treatment

It is a dangerous waste; only packaging which is approved (e.g., acc. to ADR) may be used. Completely emptied packages may be recycled. Handle contaminated packages in the same way as the substance itself.

Sewage disposal

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Other disposal recommendations

Please consider the relevant national or regional provisions. Waste shall be separated into categories that can be handled separately by the local or national waste management facilities.

SECTION 14: Transport information

49 CFR US DOT

UN Number: 1210
 Class: 3
 Packing Group: II
 Proper Shipping Name: Printing ink, [flammable or] Printing ink related material [(including printing ink thinning or reducing compound), flammable]
 Marine pollutant: -
 Reportable quantity (RQ) - 6,196 lbs (2,813 kg) (Methyl Ethyl Ketone)

IMDG

UN Number: 1210
 Class: 3
 Packing Group: II
 EMS Number: F-E,S-D
 Proper Shipping Name: Printing ink, [flammable or] Printing ink related material [(including printing ink thinning or reducing compound), flammable]

IATA

UN Number: 1210
 Class: 3
 Packing Group: II
 Proper Shipping Name: Printing ink, [flammable or] Printing ink related material [(including printing ink thinning or reducing compound), flammable]

SECTION 15: Regulatory information

15.1 Safety, health, and environmental regulations specific for the product in question

EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists

| CAS # | Hazardous Components (Chemical Name) | S. 302 (EHS) | S. 304 RQ | S. 313 (TRI) |
|-----------|--------------------------------------|--------------|-----------|--------------|
| 64-17-5 | Ethyl alcohol | No | No | No |
| 67-63-0 | Isopropyl alcohol | No | No | Yes |
| 67-64-1 | Acetone | No | Yes NA | No |
| 78-93-3 | Methyl ethyl ketone | No | Yes NA | No |
| 9004-70-0 | Nitrocellulose | No | No | No |
| 128-37-0 | Butylated hydroxytoluene | No | No | No |
| 108-83-8 | Diisobutyl ketone | No | No | No |

| CAS # | Hazardous Components (Chemical Name) | Canadian NPRI | Canadian Toxic | Canadian DSL |
|-----------|--------------------------------------|---------------|----------------|--------------|
| 64-17-5 | Ethyl alcohol | Yes: Part 5 | | Yes |
| 67-63-0 | Isopropyl alcohol | Yes: Part 5 | | Yes |
| 67-64-1 | Acetone | No | No | Yes |
| 78-93-3 | Methyl ethyl ketone | Yes: Part 5 | No | Yes |
| 9004-70-0 | Nitrocellulose | No | No | Yes |
| 128-37-0 | Butylated hydroxytoluene | Yes: Part 1A | No | Yes |

108-83-8 Diisobutyl ketone No No Yes

California Proposition 65



WARNING

This product can expose you to chemicals including Benzene, (1-methylethyl)-, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

| CAS # | Hazardous Components (Chemical Name) | Other US EPA or State Lists |
|-----------|--------------------------------------|---|
| 64-17-5 | Ethyl alcohol | CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No |
| 67-63-0 | Isopropyl alcohol | CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No |
| 67-64-1 | Acetone | CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No |
| 78-93-3 | Methyl ethyl ketone | CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No |
| 9004-70-0 | Nitrocellulose | CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No |
| 128-37-0 | Butylated hydroxytoluene | CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No |
| 108-83-8 | Diisobutyl ketone | CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No |

78-93-3 Methyl ethyl ketone Mexico INSQ: Yes – 1193; Australia ICS: Yes; New Zealand IOC: Yes; China IECSC: Yes; Japan ENCS: Yes – 2-542; Japan ISHL: No; Korea ECL: Yes – KE-24094; Philippines ICCS: Yes; Taiwan TCSCA: Yes; Singapore HSL: No; Israel HSL: No; Germany WHCS: Yes – 150: WGK 1; Switzerland Giftliste 1: Yes – G-2429; Switzerland INNS: No; REACH: Yes – 01-2119457290-43: Full, (P); Kyoto GHG: No; Rotterdam: No; Stockholm: No

64-17-5 Ethyl alcohol Mexico INSQ:Yes; Australia ICS: Yes; New Zealand IOC: Yes; China IECSC: Yes; Japan ENCS: Yes – 5-153; Japan ISHL: No; Korea ECL: Yes – KE-13217; Philippines ICCS: Yes; Taiwan TCSCA: Yes; Singapore HSL: No; Israel HSL: Yes - Cat; Germany WHCS: Yes – 96: WGK 1; Switzerland Giftliste 1: Yes – G-1158; Switzerland INNS: No; REACH: Yes – 01-2119457610-43: Full, (P); Kyoto GHG: No; Rotterdam: No; Stockholm: No

67-63-0 Isopropyl alcohol Mexico INSQ:Yes - 1219; Australia ICS: Yes; New Zealand IOC: Yes; China IECSC: Yes; Japan ENCS: Yes – 2-207; Japan ISHL: Yes – 2 –(8)-319; Korea ECL: Yes – KE-29363; Philippines ICCS: Yes; Taiwan TCSCA: Yes; Singapore HSL: No; Israel HSL: Yes - Cat; Germany WHCS: Yes – 135: WGK 1; Switzerland Giftliste 1: Yes – G-1712; Switzerland INNS: No; REACH: Yes – 01-2119457558-25: Full, (P); Kyoto GHG: No; Rotterdam: No; Stockholm: No

67-64-1 Acetone Mexico INSQ:Yes; Australia ICS: Yes; New Zealand IOC: Yes; China IECSC: Yes; Japan ENCS: Yes – 2-542; Japan ISHL: No; Korea ECL: Yes – KE-29367; Philippines ICCS: Yes; Taiwan TCSCA: Yes; Singapore HSL: No; Israel HSL: No - Cat; Germany WHCS: Yes – 6: WGK 1; Switzerland Giftliste 1: Yes – G-1031; Switzerland INNS: No; REACH: Yes – 01-2119471330-49: Full, (P); Kyoto GHG: No; Rotterdam: No; Stockholm: No

9004-70-0 Nitrocellulose Mexico INSQ: Yes; Australia ICS: Yes; New Zealand IOC: Yes; China IECSC: Yes; Japan ENCS: Yes – 8-176; Japan ISHL: No; Korea ECL: Yes – KE-25980; Philippines ICCS: Yes; Taiwan TCSCA: Yes; Singapore HSL: No; Israel HSL: No - Cat; Germany WHCS: No: WGK 1; Switzerland Giffliste 1: Yes – G-8365; Switzerland INNS: No; REACH: Yes – (P); Kyoto GHG: No; Rotterdam: No; Stockholm: No

128-37-0 Butylated hydroxytoluene Mexico INSQ: Yes; Australia ICS: Yes; New Zealand IOC: Yes; China IECSC: Yes; Japan ENCS: Yes – 9-884; Japan ISHL: No; Korea ECL: Yes – KE-03079; Philippines ICCS: Yes; Taiwan TCSCA: Yes; Singapore HSL: Yes-29309000; Israel HSL: No - Cat; Germany WHCS: Yes – 724: WGK 1; Switzerland Giffliste 1: Yes – G-2202; Switzerland INNS: No; REACH: Yes – 01-21195651 13-46: Full, (P); Kyoto GHG: No; Rotterdam: No; Stockholm: No

108-83-8 Diisobutyl ketone Mexico INSQ:Yes-1157; Australia ICS: Yes; New Zealand IOC: Yes-HSR001130; China IECSC: Yes; Japan ENCS: Yes – 2-2475; Japan ISHL: Yes-2-(8)-16; Korea ECL: Yes – KE-10907; Philippines ICCS: Yes; Taiwan TCSCA: Yes; Singapore HSL: No; Israel HSL: No - Cat; Germany WHCS: Yes – 591: WGK 1; Switzerland Giffliste 1: Yes – G-1546; Switzerland INNS: No; REACH: Yes – 01-2119474441-41: Full, (P); Kyoto GHG: No; Rotterdam: No; Stockholm: No

15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

16.1 Further information/disclaimer

DISCLAIMER: The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of information for their purposes. In no event shall Printronix be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, whatsoever arising, even if Printronix has been advised of the possibility of such damages.