SAFETY DATA SHEET
L218 Red Ink

1. Identification

Product identifier

Product name L218 Red Ink

Product number 71005274

Container size 6 x 1/2 Liter

Recommended use of the chemical and restrictions on use

Application Printing ink.

Details of the supplier of the safety data sheet

Supplier
Matthews Marking Systems
6515 Penn Avenue
Pittsburgh, PA 15206
412.665.2500
412.828.4545
info@matw.com

Manufacturer
Matthews Marking Systems
101 Fairview Ave.
Pittsburgh, PA 15238

Emergency telephone number

Emergency telephone Chemtrec US : 1-800-424-9300 Chemtrec World: 1-703-527-3887

2. Hazard(s) identification

Classification of the substance or mixture

OSHA Regulatory Status This Product is Hazardous under the OSHA Hazard Communication Standard.

Physical hazards Flam. Liq. 2 - H225

Health hazards Skin Corr. 1C - H314 Eye Dam. 1 - H318 Repr. 1B - H360D STOT SE 3 - H336

Environmental hazards Not Classified

Label elements

Pictogram

Signal word Danger

Hazard statements
H225 Highly flammable liquid and vapor.
H314 Causes severe skin burns and eye damage.
H336 May cause drowsiness or dizziness.
H360D May damage the unborn child.

Comments Full list of Hazard Statements is found in Sec. 16

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Precautionary statements

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 and hot surfaces. No smoking.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P260 Do not breathe vapor/spray.
P261 Avoid breathing vapor/spray.
P264 Wash contaminated skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331 If swallowed: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
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.
P308+P313 If exposed or concerned: Get medical advice/attention.
P310 Immediately call a poison center/doctor.
P312 Call a poison center/doctor if you feel unwell.
P321 Specific treatment (see medical advice on this label).
P363 Wash contaminated clothing before reuse.
P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P403+P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.
P501 Dispose of contents/container in accordance with national regulations.

Contains Methyl ethyl ketone - MEK, Proprietary - Conductivity Additive, Proprietary - Dye, propan-2-ol

3. Composition/information on ingredients

Mixtures

Methyl Ethyl Ketone **60-100%**

CAS number: 78-93-3

Classification
Flam. Liq. 2 - H225
Eye Irrit. 2 - H319
STOT SE 3 - H336

Proprietary - Conductivity Additive **5-10%**

CAS number: —

M factor (Acute) = 1

Classification
Flam. Liq. 3 - H226
Acute Tox. 4 - H302
Skin Corr. 1C - H314
Eye Dam. 1 - H318
STOT SE 3 - H336
Aquatic Acute 1 - H400

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Proprietary - Dye	**5-10%**
CAS number: —	

Classification
Combustible Dust - USH01
Acute Tox. 4 - H302
Repr. 1B - H360D

propan-2-ol	**1-5%**
CAS number: 67-63-0	

Classification
Flam. Liq. 2 - H225
Eye Irrit. 2A - H319
STOT SE 3 - H336

The Full Text for all Hazard Statements are Displayed in Section 16.

4. First-aid measures

Description of first aid measures

General information Consult a physician for specific advice. Show this Safety Data Sheet to the medical personnel.

Inhalation Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. If breathing stops, provide artificial respiration. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Get medical attention immediately.

Ingestion Get medical attention immediately. Do not induce vomiting. Aspiration hazard if swallowed. Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis.

Skin Contact Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention promptly if symptoms occur after washing. Wash clothing and clean shoes thoroughly before reuse.

Eye contact Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes and get medical attention.

Protection of first aiders First aid personnel should wear appropriate protective equipment during any rescue.

Most important symptoms and effects, both acute and delayed

General information See Section 11 for additional information on health hazards.

Inhalation May cause respiratory system irritation. Overexposure may depress the central nervous system, causing dizziness and intoxication.

Ingestion May cause stomach pain or vomiting. May cause nausea, headache, dizziness and intoxication.

Skin contact Prolonged or repeated contact with skin may cause irritation, redness and dermatitis.

Eye contact This product is strongly irritating. Symptoms following overexposure may include the following: Severe irritation, burning, tearing and blurred vision. Prolonged contact causes serious eye and tissue damage.

Indication of immediate medical attention and special treatment needed

Notes for the doctor Treat symptomatically.

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5.Fire-fighting measures

Extinguishing media

Suitable extinguishing media Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.

Unsuitable extinguishing media Water spray.

Special hazards arising from the substance or mixture

Flammability Class 7.1 Flammable Liquid IB.

Specific hazards Flammable liquid and vapour. Vapors are heavier than air and may spread near ground and travel a considerable distance to a source of ignition and flash back.

Hazardous combustion products Thermal decomposition or combustion products may include the following substances: Carbon dioxide (CO2). Carbon monoxide (CO). Nitrous gases (NOx).

Advice for firefighters

Protective actions during firefighting Evacuate area. Stop leak if safe to do so. Use water to keep fire exposed containers cool and disperse vapors. Use water spray to reduce vapors.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions No smoking, sparks, flames or other sources of ignition near spillage. Avoid contact with skin, eyes and clothing. Avoid inhalation of vapors. Wash thoroughly after dealing with a spillage.

Environmental precautions

Environmental precautions Avoid release to the environment.

Methods and material for containment and cleaning up

Methods for cleaning up Spilled nitrocellulose must be thoroughly wetted with water. Eliminate all sources of ignition. Stop leak if safe to do so. Contain and absorb spillage with sand, earth or other non-combustible material. Dilute contained spill with water. Collect and place in suitable waste disposal containers and seal securely.

Reference to other sections For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

7. Handling and storage

Precautions for safe handling

Usage precautions Tools used with nitrocellulose should be of non-ferrous materials such as copper, brass, or wood. Wear protective clothing as described in Section 8 of this safety data sheet.

Advice on general occupational hygiene Do not eat, drink or smoke when using this product. Provide eyewash station and safety shower. Good personal hygiene procedures should be implemented. Wash skin thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Storage precautions Keep only in the original container in a cool, well-ventilated place.

Storage class Flammable liquid storage.

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Specific end uses(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

8. Exposure Controls/personal protection

Control parameters

Occupational exposure limits

Methyl Ethyl Ketone

Long-term exposure limit (8-hour TWA): OSHA 200 ppm 590 mg/m³
Long-term exposure limit (8-hour TWA): ACGIH 200 ppm 590 mg/m³
Short-term exposure limit (15-minute): ACGIH 300 ppm 885 mg/m³

Proprietary - Conductivity Additive

Long-term exposure limit (8-hour TWA): OSHA 20 ppm fume, respirable fraction

Proprietary - Dye

Long-term exposure limit (8-hour TWA): ACGIH 0.5 - chromium (III) mg/m3 as dust
Long-term exposure limit (8-hour TWA): ACGIH 10 - dimethylfomamide ppm as dust
Long-term exposure limit (8-hour TWA): OSHA 0.5 - chromium (III) mg/m3 as dust
Long-term exposure limit (8-hour TWA): OSHA 10 - N,N-dimethylformamide ppm as dust

propan-2-ol

Long-term exposure limit (8-hour TWA): OSHA 400 ppm 980 mg/m³
Long-term exposure limit (8-hour TWA): ACGIH 200 ppm 492 mg/m³
Short-term exposure limit (15-minute): ACGIH 400 ppm 984 mg/m³
A4

OSHA = Occupational Safety and Health Administration.
ACGIH = American Conference of Governmental Industrial Hygienists.
A4 = Not Classifiable as a Human Carcinogen.

Ingredient comments Data based on literature. Product not tested.

Methyl Ethyl Ketone (CAS: 78-93-3)

Immediate danger to life and health 3000 ppm

propan-2-ol (CAS: 67-63-0)

Immediate danger to life and health 2000 ppm

Exposure controls

Protective equipment

Appropriate engineering controls As this product contains ingredients with exposure limits, process enclosures, local exhaust ventilation or other engineering controls should be used to keep worker exposure below any statutory or recommended limits, if use generates dust, fumes, gas, vapor or mist. Use explosion-proof ventilating equipment.

Eye/face protection Wear tight-fitting, chemical splash goggles or face shield.

Hand protection It is recommended that chemical-resistant, impervious gloves are worn.

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Other skin and body protection	Wear appropriate clothing to prevent repeated or prolonged skin contact.
Hygiene measures	Provide eyewash station and safety shower.
Respiratory protection	If ventilation is inadequate, suitable respiratory protection must be worn. Organic vapor filter.
Thermal hazards	If there is a risk of contact with hot product, all protective equipment worn should be suitable for use with high temperatures.
Environmental exposure controls	Keep container tightly sealed when not in use. Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance	Colored liquid.
Color	Red.
Odor	Ketonic.
Melting point	-86°C/-123°F
Initial boiling point and range	79°C/147°F @ 760 mm Hg
Flash point	-9°C/16°F CC (Closed cup).
Evaporation rate	3.7 (butyl acetate = 1)
Upper/lower flammability or explosive limits	Upper flammable/explosive limit: 12.7 % vol Lower flammable/explosive limit: 1.8 % vol
Vapour pressure	71.25 mm Hg @ 20°C/68°F
Vapour density	2.4
Relative density	0.866 g/cc 866 g/l 7.22 lbs/gal
Solubility(ies)	Soluble in the following materials: Ketones. Slightly soluble in water.
Partition coefficient	log Pow: 0.26
Auto-ignition temperature	404°C/759°F
Comments	Information given is applicable to the product as supplied.
Volatile organic compound	This product contains a maximum VOC content of 738 g/l. This product contains a maximum VOC content of 6.15 lbs/gal.

10. Stability and reactivity

Reactivity	There are no known reactivity hazards associated with this product.
Stability	Stable at normal ambient temperatures and when used as recommended.
Possibility of hazardous reactions	The following materials may react with the product: Acids. Alkalis. Strong oxidizing agents.
Conditions to avoid	Avoid the following conditions: Heat, sparks, flames.
Materials to avoid	Avoid contact with the following materials: Acids. Alkalis. Strong oxidizing agents.

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Hazardous decomposition products	Heating may generate the following products: Carbon dioxide (CO2). Carbon monoxide (CO). Nitrous gases (NOx).

11. Toxicological information

Information on toxicological effects

Toxicological effects Data based on literature. Product not tested.

Acute toxicity - oral

ATE oral (mg/kg) 5,660.38

Acute toxicity - dermal

ATE dermal (mg/kg) 30,000.0

Specific target organ toxicity - single exposure

Target organs Central nervous system Eyes Gastro-intestinal tract Respiratory system, lungs Skin

Specific target organ toxicity - repeated exposure

Target organs Blood Central nervous system Gastro-intestinal tract Kidneys Liver Skin

Aspiration hazard

Aspiration hazard Aspiration hazard if swallowed. Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis.

Toxicological information on ingredients.

Methyl Ethyl Ketone

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg)	2,600.0
Species	Rat
ATE oral (mg/kg)	2,600.0

Acute toxicity - dermal

Acute toxicity dermal (LD_{50} mg/kg)	6,400.0
Species	Rabbit
ATE dermal (mg/kg)	6,400.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC_{50} vapours mg/l)	32,000.0
Species	Mouse
ATE inhalation (vapours mg/l)	32,000.0

Proprietary - Conductivity Additive

Acute toxicity - oral

ATE oral (mg/kg) 500.0

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Proprietary - Dye

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg)	750.0
Species	Rat
Notes (oral LD_{50})	LD_{50} 2800 mg/kg, Oral, Rat
ATE oral (mg/kg)	750.0

Acute toxicity - dermal

Acute toxicity dermal (LD_{50} mg/kg)	1,500.0
Species	Rabbit
ATE dermal (mg/kg)	1,500.0

Carcinogenicity

IARC carcinogenicity	IARC Group 3 Not classifiable as to its carcinogenicity to humans.

propan-2-ol

Carcinogenicity

IARC carcinogenicity	IARC Group 3 Not classifiable as to its carcinogenicity to humans.

12. Ecological Information

Ecotoxicity Data based on literature. Product not tested.

Ecological information on ingredients.

Proprietary - Dye

Ecotoxicity	No information available.

Toxicity

Ecological information on ingredients.

Methyl Ethyl Ketone

Acute toxicity - fish	LC_{50}, : 1690 mg/l, Lepomis macrochirus (Bluegill) LC_{50}, : 3220 mg/l, Pimephales promelas (Fat-head Minnow)

Proprietary - Conductivity Additive

Acute aquatic toxicity

$LE(C)_{50}$	0.1 < L(E)C50 ≤ 1
M factor (Acute)	1

Bioaccumulative potential

Partition coefficient log Pow: 0.26

13. Disposal considerations

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Waste treatment methods

General information Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

14. Transport information

UN Number

UN No. (DOT) 1210

UN No. (IMDG) 1210

UN No. (ICAO) 1210

UN proper shipping name

Proper shipping name (DOT) PRINTING INK

Proper shipping name (IMDG) PRINTING INK

Proper shipping name (ICAO) PRINTING INK

Transport hazard class(es)

IMDG Class 3

ICAO class/division 3

Transport labels

Packing group

DOT pack group II

IMDG packing group II

ICAO packing group II

Environmental hazards

Environmentally Hazardous Substance

No.

Special precautions for user

EmS F-E, S-D

15. Regulatory information

Regulatory Status Hazardous Chemical

Regulatory References OSHA Hazard Communication Standard, 29 CFR 1910.1200

US Federal Regulations

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

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Methyl Ethyl Ketone
Final CERCLA RQ: 5000(2270) pounds (Kilograms)

SARA 313 Emission Reporting

Methyl Ethyl Ketone
All the ingredients are listed or exempt.

SARA (311/312) Hazard Categories

Methyl Ethyl Ketone
Fire
Health:
Acute
Chronic

Proprietary - Conductivity Additive
Fire
Acute

Proprietary - Dye
Fire
Health:
Acute

OSHA Highly Hazardous Chemicals

Proprietary - Resin
Threshold Quantity: 2500 lbs

US State Regulations

California Air Toxics "Hot Spots" (A-I)

Methyl Ethyl Ketone
Present

propan-2-ol
Present

California Directors List of Hazardous Substances

The following ingredients are listed or exempt:

Methyl Ethyl Ketone
Present

propan-2-ol
Present

Massachusetts "Right To Know" List

The following ingredients are listed or exempt:

Methyl Ethyl Ketone
Present

Proprietary - Conductivity Additive
Present

propan-2-ol
Present

Proprietary - Resin
Present

Rhode Island "Right To Know" List

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The following ingredients are listed or exempt:

Methyl Ethyl Ketone
Present

propan-2-ol
Present

Minnesota "Right To Know" List

The following ingredients are listed or exempt:

Methyl Ethyl Ketone
Present

propan-2-ol
Present

New Jersey "Right To Know" List

The following ingredients are listed or exempt:

Methyl Ethyl Ketone
Present

Proprietary - Conductivity Additive
Present

propan-2-ol
Present

Proprietary - Resin
Present

Pennsylvania "Right To Know" List

The following ingredients are listed or exempt:

Methyl Ethyl Ketone
Present

Proprietary - Conductivity Additive
Present

propan-2-ol
Present

Proprietary - Resin
Present

Inventories

EU - EINECS/ELINCS

The following ingredients are listed or exempt:

Methyl Ethyl Ketone
ELINCS

Proprietary - Conductivity Additive
EINECS

Canada - DSL/NDSL

The following ingredients are listed or exempt:

Methyl Ethyl Ketone
DSL

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Proprietary - Conductivity Additive
DSL

propan-2-ol
DSL

Proprietary - Resin
DSL

US - TSCA
All the ingredients are listed or exempt.

Australia - AICS
The following ingredients are listed or exempt:

Methyl Ethyl Ketone
Present

Japan - MITI
The following ingredients are listed or exempt:

Methyl Ethyl Ketone
Present

Korea - KECI
The following ingredients are listed or exempt:

Methyl Ethyl Ketone
Present

China - IECSC
The following ingredients are listed or exempt:

Philippines – PICCS
The following ingredients are listed or exempt:

Methyl Ethyl Ketone
Present

New Zealand - NZIOC
The following ingredients are listed or exempt:

16. Other information

General information	Containers of this material may be hazardous when emptied, all hazard precautions given in the data sheet must be observed.
Issued by	Matthews Marking Systems - Chemical Services Department
Revision date	6/1/2015
Revision	1
SDS No.	5502
SDS status	Approved.

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Hazard statements in full	H225 Highly flammable liquid and vapor. H226 Flammable liquid and vapor. H302 Harmful if swallowed. H312 Harmful in contact with skin. H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness. H360D May damage the unborn child. H400 Very toxic to aquatic life. USH01 May form combustible dust concentrations in air
NFPA - flammability hazard	Ignites easily. (3)
NFPA - health hazard	Irritation, minor residual injury. (1)
NFPA - instability hazard	Normally stable. (0)
ACA HMIS Health rating.	Slight hazard. (1) Chronic hazard.
ACA HMIS Physical hazard rating.	Normally stable. (0)
ACA HMIS Personal protection rating.	B
ACA HMIS Flammability rating.	Ignites easily. (3)