



SAFETY DATA SHEET

DPI-630 Black Pigmented Ink

SECTION 1: Identification: Product identifier and chemical identity

Product identifier

Product name DPI-630 Black Pigmented Ink

Product No. 71002424, 71002425, 71002426, 71002428, 71002429

Container size 6 x 1 Liter, 2 x 4 Liter, 5 Gallon Pail, 55 Gallon Drum

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

Application Printing ink.

Uses advised against Use only for intended applications.

Details of the supplier of the safety data sheet

Supplier Matthews Marking Systems
3159 Unionville Road, Suite 500
Cranberry Township, PA 16066
412.665.2500
412.828.4545
info@matw.com

Manufacturer Matthews Marking Systems
Zona Franca La Lima
Multitenant #8
Cartago, Costa Rica 30106
(506) 4000-1103

Emergency telephone number

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

SECTION 2: Hazard(s) identification

Classification of the substance or mixture

Physical hazards Flam. Liq. 2 - H225

Health hazards Eye Irrit. 2A - H319 STOT SE 2 - H371 STOT SE 3 - H336

Environmental hazards Not Classified

Label elements

Hazard pictograms



Signal word

DANGER

Hazard statements

H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H371 May cause damage to organs .
H336 May cause drowsiness or dizziness.

DPI-630 Black Pigmented Ink

Precautionary statements	<p>P210 Keep away from heat/ sparks/ open flames/ hot surfaces. - No smoking.</p> <p>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P312 Call a POISON CENTER or doctor/ physician if you feel unwell.</p> <p>P403+P233 Store in a well-ventilated place. Keep container tightly closed.</p> <p>P501 Dispose of contents/ container in accordance with national regulations.</p>
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SECTION 3: Composition and information on ingredients

Mixtures

Ethyl acetate	50-<80%
CAS number: 141-78-6	
Classification	
Flam. Liq. 2 - H225	
Eye Irrit. 2A - H319	
STOT SE 3 - H336	
Ethanol	10-<30%
CAS number: 64-17-5	
Classification	
Flam. Liq. 2 - H225	
Eye Irrit. 2A - H319	
Isopropanol	1-<5%
CAS number: 67-63-0	
Classification	
Flam. Liq. 2 - H225	
Eye Irrit. 2A - H319	
STOT SE 3 - H336	
Cellulose Nitrate	1-<5%
CAS number: 9004-70-0	
Classification	
Expl. 1.1 - H201	
Methanol	1-<5%
CAS number: 67-56-1	
Classification	
Flam. Liq. 2 - H225	
Acute Tox. 3 - H301	
Acute Tox. 3 - H311	
Acute Tox. 3 - H331	
STOT SE 1 - H370	

DPI-630 Black Pigmented Ink

The full text for all hazard statements is displayed in Section 16.

Composition comments This material does contain Hazardous Air Pollutants (HAPS) as defined by the Clean Air Act under the US Environmental Protection Agency (EPA). See Sections 9 and 15 for further details.

Ingredient notes The exact percentage/concentration is withheld as a trade secret in accordance with 29 CFR 1910.1200. The exact identity is withheld as a trade secret in accordance with 29 CFR 1910.1200.

SECTION 4: First aid measures

Description of first aid measures

General information Consult a physician for specific advice. If medical advice is needed, have product container or label at hand. If in doubt, get medical attention promptly. 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. Consult a physician for specific advice.

Ingestion Get medical attention immediately. Do not induce vomiting unless under the direction of medical personnel. Never give anything by mouth to an unconscious person.

Skin Contact Rinse immediately contaminated clothing and skin with plenty of water before removing clothes. Wash skin thoroughly with soap and water. Get medical attention if irritation persists 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 The product is considered to be a low hazard under normal conditions of use. The severity of the symptoms described will vary dependent on the concentration and the length of exposure. See Section 11 for additional information on health hazards.

Inhalation May be harmful if inhaled. Vapours in high concentrations are narcotic. Vapours may cause headache, fatigue, dizziness and nausea. Vapours irritate the respiratory system.

Ingestion Harmful if swallowed. 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 moderately irritating. Symptoms following overexposure may include the following: Severe irritation, burning, tearing and blurred vision.

Indication of any immediate medical attention and special treatment needed

Notes for the doctor Treat symptomatically.

SECTION 5: Firefighting 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

DPI-630 Black Pigmented Ink

Specific hazards	Vapours are heavier than air and may spread near ground and travel a considerable distance to a source of ignition and flash back. Flammable liquid and vapour.
Hazardous combustion products	Thermal decomposition or combustion products may include the following substances: Carbon dioxide (CO ₂). Carbon monoxide (CO).
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 vapours. Use water spray to reduce vapours.
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.
Hazchem Code	•3YE

SECTION 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 vapours. Wash thoroughly after dealing with a spillage. Ensure procedures and training for emergency decontamination and disposal are in place.

Environmental precautions

Environmental precautions Avoid release to the environment. Do not discharge into drains or watercourses or onto the ground. Use appropriate containment to avoid environmental contamination. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

Methods and material for containment and cleaning up

Methods for cleaning up Eliminate all sources of ignition. Stop leak if safe to do so. Do not touch or walk into spilled material. Take care as floors and other surfaces may become slippery. Contain and absorb spillage with sand, earth or other non-combustible material. Collect and place in suitable waste disposal containers and seal securely. When handling waste, the safety precautions applying to handling of the product should be considered. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

Reference to other sections

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.

SECTION 7: Handling and storage, including how the chemical may be safely used

Precautions for safe handling

Usage precautions 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. Wash contaminated clothing before reuse.

Conditions for safe storage, including any incompatibilities

Storage precautions Store at temperatures between 4.4°C/40°F and 32.2°C/90°F. Keep only in the original container in a cool, well-ventilated place. Protect from freezing and direct sunlight. Container must be kept tightly closed when not in use. Keep containers upright. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Store in accordance with national regulations.

Storage class Flammable liquid storage.

DPI-630 Black Pigmented Ink

Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.

SECTION 8: Exposure controls and personal protection

Control parameters

Occupational exposure limits

Ethyl acetate

Long-term exposure limit (8-hour TWA): 200 ppm 720 mg/m³

Short-term exposure limit (15-minute): 400 ppm 1440 mg/m³

Ethanol

Long-term exposure limit (8-hour TWA): 1000 ppm 1880 mg/m³

Isopropanol

Long-term exposure limit (8-hour TWA): 400 ppm 983 mg/m³

Short-term exposure limit (15-minute): 500 ppm 1230 mg/m³

Methanol

Long-term exposure limit (8-hour TWA): 200 ppm 262 mg/m³

Short-term exposure limit (15-minute): 250 ppm 328 mg/m³

Sk

Sk = Absorption through the skin may be a significant source of exposure.

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, vapour 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. The most suitable glove should be chosen in consultation with the glove supplier/manufacture, who can provide information about the breakthrough time of the glove material. It is recommended that gloves are made of the following material: Butyl rubber. Nitrile rubber. Rubber (natural, latex). Frequent changes are recommended.

Other skin and body protection

Avoid contact with skin. Wear appropriate clothing to prevent repeated or prolonged skin contact.

Hygiene measures

Wash contaminated skin thoroughly after handling. Provide eyewash station and safety shower.

Respiratory protection

If ventilation is inadequate, suitable respiratory protection must be worn. Wear a respirator fitted with the following cartridge: Organic vapour 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.

SECTION 9: Physical and chemical properties

DPI-630 Black Pigmented Ink

Information on basic physical and chemical properties

Appearance	Coloured liquid.
Colour	Black.
Odour	Sweetish. Alcoholic.
Melting point	-83°C/-117.4°F
Initial boiling point and range	63°C/147°F @ 760 mm Hg
Flash point	-4°C/24°F Closed cup.
Evaporation rate	4.1 (butyl acetate = 1)
Flammability Limit - Lower(%)	Upper flammable/explosive limit: 19 % vol Lower flammable/explosive limit: 1.4 % vol
Vapour pressure	74.25 mm Hg @ 20°C/68°F
Vapour density	3.0
Relative density	0.888 g/ml 888 g/l 7.40 lbs/gal
Solubility(ies)	Soluble in the following materials: Alcohols. Esters. Slightly soluble in water.
Partition coefficient	log Pow: 0.73
Auto-ignition temperature	398°C/750°F
Decomposition Temperature	Not applicable.
Explosive properties	Not applicable.
Oxidising properties	Not applicable.
Comments	Information given is applicable to the product as supplied. Information declared as "Not available" or "Not applicable" is not considered to be relevant to the implementation of the proper control measures.
Volatile organic compound	This product contains a maximum VOC content of 822 g/l. This product contains a maximum VOC content of 6.86 lbs/gal.
HAPS Content	1.50%

SECTION 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.
Conditions to avoid	Avoid the following conditions: Heat, sparks, flames. Freezing.
Materials to avoid	Avoid contact with the following materials: Strong acids. Strong alkalis. Strong oxidising agents.
Hazardous decomposition products	Heating may generate the following products: Carbon dioxide (CO ₂). Carbon monoxide (CO).

SECTION 11: Toxicological information

Information on toxicological effects

Toxicological effects Information given is based on data of the components and of similar products.

Acute toxicity - oral

DPI-630 Black Pigmented Ink

ATE oral (mg/kg) 7,467.14

Acute toxicity - dermal

ATE dermal (mg/kg) 22,401.43

Acute toxicity - inhalation

ATE inhalation (vapours mg/l) 224.01

Specific target organ toxicity - single exposure

Target organs 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

Toxicological information on ingredients.

Ethyl acetate

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l) 58.0

ATE inhalation (vapours mg/l) 58.0

Serious eye damage/irritation

Serious eye damage/irritation Causes eye irritation.

Specific target organ toxicity - single exposure

Target organs Central nervous system

Ethanol

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l) 30,000.0

ATE inhalation (vapours mg/l) 30,000.0

Serious eye damage/irritation

Serious eye damage/irritation Causes eye irritation.

Carcinogenicity

Carcinogenicity Ethyl alcohol is only considered a carcinogenic and developmental hazard when ingested as an alcoholic beverage.

IARC carcinogenicity IARC Group 1 Carcinogenic to humans.

Isopropanol

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l) 73.0

DPI-630 Black Pigmented Ink

ATE inhalation (vapours mg/l) 73.0

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye irritation.

Carcinogenicity

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

Methanol

Acute toxicity - oral

Notes (oral LD₅₀) LDLO - 143 mg/kg, Oral, Human LD₅₀ 1187 - 2769 mg/kg, Oral, Rat

ATE oral (mg/kg) 100.0

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ 17100 mg/kg, Dermal, Rabbit

ATE dermal (mg/kg) 300.0

Acute toxicity - inhalation

Notes (inhalation LC₅₀) LC₅₀ 87.6 - 6 h mg/l, Inhalation, Rat LC₅₀ 128.2 - 4 h mg/l, Inhalation, Rat

ATE inhalation (vapours mg/l) 3.0

Carcinogenicity

Carcinogenicity No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen

IARC carcinogenicity No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen

NTP carcinogenicity No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen

Specific target organ toxicity - single exposure

STOT - single exposure A single exposure may cause the following adverse effects: Difficulty in breathing. Nausea, vomiting. Diarrhoea.

Target organs Gastro-intestinal tract Respiratory system, lungs Respiratory tract

SECTION 12: Ecological information

Ecological information on ingredients.

Ethyl acetate

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 48 hours: 270 mg/l, Leuciscus idus (Golden orfe)
LC₅₀, 96 hours: 230 mg/l, Pimephales promelas (Fat-head Minnow)

DPI-630 Black Pigmented Ink

Acute toxicity - aquatic invertebrates	EC ₅₀ , 24 hours: 717 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC ₅₀ , 48 hours: 3300 mg/l, Freshwater algae
Acute toxicity - microorganisms	EC ₅₀ , 5 minutes: 1180 mg/l, Activated sludge EC ₅₀ , 15 minutes: 1500 mg/l, Activated sludge EC ₅₀ , 2 hours: 7400 mg/l, Activated sludge

Ethanol

Acute aquatic toxicity

Acute toxicity - fish	LC ₅₀ , 96 hours: 14,200 mg/l, Pimephales promelas (Fat-head Minnow)
Acute toxicity - aquatic invertebrates	NOEC, 9 days: 9.6 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC ₅₀ , 72 hours: 275 mg/l, Freshwater algae

Isopropanol

Acute aquatic toxicity

Acute toxicity - fish	LC ₅₀ , 96 hours: 9640 mg/l, Pimephales promelas (Fat-head Minnow)
Acute toxicity - aquatic invertebrates	EC ₅₀ , 24 hours: 5102 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC ₅₀ , 72 hours: > 2000 mg/l, Desmodium subspicatus EC ₅₀ , 24 hours: > 1000 mg/l, Algae

Methanol

Acute aquatic toxicity

Acute toxicity - fish	NOEC, 200 hours: 7,900 mg/l, Oryzias latipes (Red killifish) LC ₅₀ , 96 hours: 15,400 mg/l, Lepomis macrochirus (Bluegill)
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: > 10,000 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC ₅₀ , 96 hours: 22,000 mg/l, Selenastrum capricornutum

Persistence and degradability

Ecological information on ingredients.

Isopropanol

Persistence and degradability	The product is readily biodegradable.
Biological oxygen demand	1.19 g O ₂ /g substance
Chemical oxygen demand	2.23 g O ₂ /g substance

Methanol

DPI-630 Black Pigmented Ink

Biodegradation	The substance is readily biodegradable. Soil - Degradation 72%: 5 days
Biological oxygen demand	600-1,120 g O ₂ /g substance
Chemical oxygen demand	1,420 mg O ₂ /l

Bioaccumulative potential

Partition coefficient log Pow: 0.73

Ecological information on ingredients.

Ethyl acetate

Partition coefficient Pow: 5.4 log Pow: 0.73

Ethanol

Partition coefficient log Pow: -0.32

Isopropanol

Partition coefficient log Pow: 0.05

Methanol

Bioaccumulative Potential BCF: 5 mg/l, Cyprinus carpio (Common carp)

SECTION 13: Disposal considerations

Waste treatment methods

General information The generation of waste should be minimised or avoided wherever possible. When handling waste, the safety precautions applying to handling of the product should be considered. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Dispose of waste product or used containers in accordance with local regulations. 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 contents/container in accordance with national regulations. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. When handling waste, the safety precautions applying to handling of the product should be considered.

SECTION 14: Transport information

UN number

UN No. (ADG)	1210
UN No. (IMDG)	1210
UN No. (ICAO)	1210

UN proper shipping name

Proper shipping name (ADG)	PRINTING INK
Proper shipping name (IMDG)	PRINTING INK

DPI-630 Black Pigmented Ink

Proper shipping name (ICAO) PRINTING INK

Transport hazard class(es)

ADG class	3
ADG classification code	F1
ADG label	3
IMDG class	3
ICAO class/division	3

Transport labels



Packing group

ADG packing group	II
IMDG packing group	II
ICAO packing group	II

Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

Special precautions for user

EmS	F-E, S-D
Hazchem Code	•3YE

SECTION 15: Regulatory information

Inventories

EU - EINECS/ELINCS

All the ingredients are listed or exempt.

Canada - DSL/NDSL

All the ingredients are listed or exempt.

US - TSCA

All the ingredients are listed or exempt.

Australia - AICS

The following ingredients are listed:

Ethyl acetate

Methanol

Ethanol

Isopropanol

Cellulose Nitrate

Japan - ENCS

The following ingredients are listed:

DPI-630 Black Pigmented Ink

Revision	5
Supersedes date	2/06/2017
SDS No.	4975
SDS status	Approved.
Hazard statements in full	H201 Explosive; mass explosion hazard. H225 Highly flammable liquid and vapour. H301 Toxic if swallowed. H311 Toxic in contact with skin. H319 Causes serious eye irritation. H331 Toxic if inhaled. H336 May cause drowsiness or dizziness. H370 Causes damage to organs . H371 May cause damage to organs .

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.