



SAFETY DATA SHEET M376 Blue Ink

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name M376 Blue Ink
 Product number 71001154
 Container size 6 x 1 Liter

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

Identified uses Printing ink.
 Uses advised against No specific uses advised against are identified.

1.3. 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

1.4. Emergency telephone number

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

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification

Physical hazards Not Classified
 Health hazards Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 STOT SE 3 - H335, H336
 Environmental hazards Not Classified

Classification (67/548/EEC or 1999/45/EC) Xn; R48/20/21/22. Xi; R36/37/38. Carc. Cat. 3 R40. R67

2.2. Label elements

Pictogram



Signal word Warning

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Hazard statements	H315 Causes skin irritation. H319 Causes serious eye irritation. H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness.
Comments	Full list of Hazard Statements is found in Sec. 16
Precautionary statements	P261 Avoid breathing vapour/spray. P280 Wear protective gloves/protective clothing/eye protection/face protection. 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. P403+P233 Store in a well-ventilated place. Keep container tightly closed. P501 Dispose of contents/container in accordance with national regulations.
Contains	Dibasic Ester, Glycol Ether DB
Supplementary precautionary statements	P264 Wash contaminated skin thoroughly after handling. P271 Use only outdoors or in a well-ventilated area. P302+P352 IF ON SKIN: Wash with plenty of water. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P321 Specific treatment (see medical advice on this label). P332+P313 If skin irritation occurs: Get medical advice/attention. P337+P313 If eye irritation persists: Get medical advice/attention. P362+P364 Take off contaminated clothing and wash it before reuse. P405 Store locked up.

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Dibasic Ester	30-60%
CAS number: —	
Classification	Classification (67/548/EEC or 1999/45/EC)
Acute Tox. 4 - H332	Xn; R20. Xi; R36/37/38. R67
Skin Irrit. 2 - H315	
Eye Irrit. 2 - H319	
STOT SE 3 - H335, H336	
Glycol Ether DB	10-30%
CAS number: 112-34-5 EC number: 203-961-6	
Classification	Classification (67/548/EEC or 1999/45/EC)
Skin Irrit. 2 - H315	Xi; R36/37/38
Eye Irrit. 2 - H319	
STOT SE 3 - H335	

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

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

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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	Do not induce vomiting. Give a few small glasses of water or milk to drink. Never give anything by mouth to an unconscious person. Get medical attention immediately.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if symptoms are severe or persist after washing. If in doubt, get medical attention promptly. 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.

4.2. Most important symptoms and effects, both acute and delayed

General information	See Section 11 for additional information on health hazards.
Inhalation	May cause respiratory irritation. Vapour may affect central nervous system.
Ingestion	Aspiration hazard if swallowed. Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis. Symptoms following overexposure may include the following: Pain or irritation. Nausea, vomiting. Diarrhoea.
Skin contact	Causes mild skin irritation. 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. Redness.

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

Notes for the doctor	Treat symptomatically.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

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

5.2. Special hazards arising from the substance or mixture

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.
Hazardous combustion products	Thermal decomposition or combustion products may include the following substances: Carbon dioxide (CO ₂). Carbon monoxide (CO).

5.3. 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.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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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.

6.2. Environmental precautions

Environmental precautions Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up 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.

6.4. 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

7.1. 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.

7.2. 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.

7.3. Specific end use(s)

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

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

Glycol Ether DB

Long-term exposure limit (8-hour TWA): WEL 10 ppm 67.5 mg/m³ Austria, Belgium, European Union, France, Ireland, Italy, Latvia, Spain, United Kingdom

Long-term exposure limit (8-hour TWA): WEL 100 mg/m³ Denmark

Long-term exposure limit (8-hour TWA): WEL 10 ppm 68 mg/m³ Finland

Long-term exposure limit (8-hour TWA): WEL 10 ppm 67 mg/m³ Germany (AGS), Germany (DFG), Switzerland

Long-term exposure limit (8-hour TWA): WEL 67.5 mg/m³ Hungary

Long-term exposure limit (8-hour TWA): WEL 67 mg/m³ Poland

Long-term exposure limit (8-hour TWA): WEL 15 ppm 100 mg/m³ Sweden

Long-term exposure limit (8-hour TWA): WEL 50 mg/m³ The Netherlands

Short-term exposure limit (15-minute): WEL 15 ppm 101.2 mg/m³ Austria, Belgium, European Union, France, Ireland, Italy, Latvia, Spain, Switzerland, United Kingdom

Short-term exposure limit (15-minute): WEL 15 ppm 100 mg/m³ Germany (AGS)

Short-term exposure limit (15-minute): WEL 15 ppm 100.5 mg/m³ Germany (DFG)

Short-term exposure limit (15-minute): WEL 101.2 mg/m³ Hungary

Short-term exposure limit (15-minute): WEL 100 mg/m³ Poland, The Netherlands

Short-term exposure limit (15-minute): WEL 30 ppm 200 mg/m³ Sweden

WEL = Workplace Exposure Limit

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8.2. 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/manufacturer, 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

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. 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. Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Coloured liquid.
Colour	Blue.
Odour	Ester. Ether.
Odour threshold	Not available.
pH	pH (concentrated solution): 6.0 - 8.5
Melting point	-20°C/-4°F
Initial boiling point and range	196°C/385°F @ 760 mm Hg
Flash point	100°C/212°F CC (Closed cup).
Upper/lower flammability or explosive limits	Upper flammable/explosive limit: 8.5 % vol Lower flammable/explosive limit: 0.9 % vol
Vapour pressure	0.45 mm Hg @ 20°C/68°F
Vapour density	5.5
Relative density	1.298 g/cm ³ 1298 g/l 10.81 lbs/gal
Solubility(ies)	Soluble in the following materials: Esters. Ether. Miscible with water.

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Partition coefficient	log Pow: 1.0
Auto-ignition temperature	204°C/400°F
Decomposition Temperature	Not applicable.
Explosive properties	Not applicable.
Oxidising properties	Not applicable.
Comments	Data based on literature. Product not tested. 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.

9.2. Other information

Volatile organic compound	This product contains a maximum VOC content of 789 g/l. This product contains a maximum VOC content of 6.57 lbs/gal.
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	There are no known reactivity hazards associated with this product.
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10.2. Chemical stability

Stability	Stable at normal ambient temperatures and when used as recommended.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	The following materials may react with the product: Strong acids. Strong alkalis. Strong oxidising agents.
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10.4. Conditions to avoid

Conditions to avoid	Avoid the following conditions: Heat, sparks, flames.
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10.5. Incompatible materials

Materials to avoid	Avoid contact with the following materials: Strong acids. Strong alkalis. Strong oxidising agents.
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10.6. Hazardous decomposition products

Hazardous decomposition products	Heating may generate the following products: Carbon dioxide (CO ₂). Carbon monoxide (CO).
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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects	Data based on literature. Product not tested.
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Acute toxicity - inhalation

ATE inhalation (vapours mg/l)	27.51
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Specific target organ toxicity - single exposure

Target organs	Central nervous system Eyes Gastro-intestinal tract Respiratory system, lungs Skin
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Specific target organ toxicity - repeated exposure

Target organs	Central nervous system Eyes Gastro-intestinal tract Kidneys Liver Respiratory system, lungs Skin
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Aspiration hazard

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

Toxicological information on ingredients.

Dibasic Ester

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 5,000.1

Species Rat

ATE oral (mg/kg) 5,000.1

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 2,000.1

Species Rat

ATE dermal (mg/kg) 2,000.1

Acute toxicity - inhalation

ATE inhalation (vapours mg/l) 11.0

Carcinogenicity

Carcinogenicity Supplier's information. There is no evidence that the product can cause cancer.

SECTION 12: Ecological Information

Ecotoxicity Data based on literature. Product not tested.

Ecological information on ingredients.

Dibasic Ester

Ecotoxicity The product contains a substance which may cause long-term adverse effects in the aquatic environment.

12.1. Toxicity

Ecological information on ingredients.

Dibasic Ester

Acute toxicity - fish Supplier's information.
LC₅₀, 96 hours: 18 - 24 mg/l, Pimephales promelas (Fat-head Minnow)

Acute toxicity - aquatic invertebrates Supplier's information.
EC₅₀, 48 hours: 112 - 150 mg/l, Daphnia magna

Acute toxicity - aquatic plants Supplier's information.
EC₅₀, 72 hours: > 85 mg/l, Pseudokirchneriella subcapitata

12.2. Persistence and degradability

Ecological information on ingredients.

Dibasic Ester

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Biodegradation The substance is readily biodegradable.

12.3. Bioaccumulative potential

Partition coefficient log Pow: 1.0

Ecological information on ingredients.

Dibasic Ester

Bioaccumulative potential The product is not bioaccumulating.

12.4. Mobility in soil

Ecological information on ingredients.

Dibasic Ester

Mobility Not considered mobile.

12.5. Results of PBT and vPvB assessment

12.6. Other adverse effects

SECTION 13: Disposal considerations

13.1. 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 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. Residues and empty containers should be taken care of as hazardous waste according to local and national provisions. When handling waste, the safety precautions applying to handling of the product should be considered.

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID) 1210

UN No. (IMDG) 1210

UN No. (ICAO) 1210

UN No. (ADN) 1210

14.2. UN proper shipping name

Proper shipping name (ADR/RID) PRINTING INK

Proper shipping name (IMDG) PRINTING INK

Proper shipping name (ICAO) PRINTING INK

Proper shipping name (ADN) PRINTING INK

14.3. Transport hazard class(es)

ADR/RID class 3

ADR/RID classification code F1

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ADR/RID label	3
IMDG class	3
ICAO class/division	3
ADN class	3

Transport labels



14.4. Packing group

ADR/RID packing group	III
IMDG packing group	III
ICAO packing group	III
ADN packing group	III

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

EmS	F-E, S-D
ADR transport category	3
Emergency Action Code	•3Y
Hazard Identification Number (ADR/RID)	30
Tunnel restriction code	(D/E)

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU legislation	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).
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15.2. Chemical safety assessment

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 or exempt:

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Glycol Ether DB

Dibasic Ester

Japan - MITI

The following ingredients are listed or exempt:

Glycol Ether DB

Dibasic Ester

Korea - KECI

The following ingredients are listed or exempt:

Glycol Ether DB

Dibasic Ester

China - IECSC

The following ingredients are listed or exempt:

Glycol Ether DB

Dibasic Ester

Philippines – PICCS

The following ingredients are listed or exempt:

Glycol Ether DB

Dibasic Ester

SECTION 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	Mathews Marking Systems - Chemical Services Department
Revision date	31/12/2015
Revision	2
Supersedes date	01/06/2015
SDS number	5714
SDS status	Approved.
Risk phrases in full	R36/37/38 Irritating to eyes, respiratory system and skin. R40 Limited evidence of a carcinogenic effect. R48/20/21/22 Harmful: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed. R48/23/24/25 Toxic: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed. R65 Harmful: may cause lung damage if swallowed. R67 Vapours may cause drowsiness and dizziness.
Hazard statements in full	H315 Causes skin irritation. H319 Causes serious eye irritation. H332 Harmful if inhaled. H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness.

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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.