



SAFETY DATA SHEET

M380 Black Offset Ink

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

1.1. Product identifier

Product name M380 Black Offset Ink

Product number 71001168

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 Flam. Liq. 3 - H226

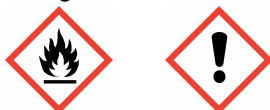
Health hazards Acute Tox. 4 - H332 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319

Environmental hazards Not Classified

Classification (67/548/EEC or 1999/45/EC) Xi; R36/38. Carc. Cat. 3 R40. R10

2.2. Label elements

Pictogram



Signal word

Warning

M380 Black Offset Ink

Hazard statements	H226 Flammable liquid and vapour. H315 Causes skin irritation. H319 Causes serious eye irritation. H332 Harmful if inhaled.
Comments	Full list of Hazard Statements is found in Sec. 16
Precautionary statements	P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. 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+P235 Store in a well-ventilated place. Keep cool. P501 Dispose of contents/container in accordance with national regulations.
Contains	Cyclohexanone, Dibasic Ester
Supplementary precautionary statements	P233 Keep container tightly closed. 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. P261 Avoid breathing vapour/spray. 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. 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. 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. P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Cyclohexanone	30-60%
CAS number: 108-94-1	EC number: 203-631-1
Classification	Classification (67/548/EEC or 1999/45/EC)
Flam. Liq. 3 - H226	Xn; R20. R10
Acute Tox. 4 - H302	
Acute Tox. 4 - H332	
Skin Irrit. 2 - H315	
Eye Dam. 1 - H318	

M380 Black Offset Ink

Dibasic Ester	10-30%
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	

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.
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. Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person. Get medical attention immediately.
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 symptoms are severe or persist 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.

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

General information	See Section 11 for additional information on health hazards.
Inhalation	Vapours may irritate throat/respiratory system. May cause coughing and difficulties in breathing. Overexposure to organic solvents may depress the central nervous system, causing dizziness and intoxication and, at very high concentrations, unconsciousness and death.
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. May cause liver and/or renal damage.
Skin contact	May be absorbed through the skin. 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.
-----------------------------	------------------------

SECTION 5: Firefighting measures

5.1. Extinguishing media

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

M380 Black Offset Ink

Unsuitable extinguishing media Water spray.

5.2. Special hazards arising from the substance or mixture

Specific hazards Combustible liquid. 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 (CO₂). 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

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

M380 Black Offset Ink

Cyclohexanone

Long-term exposure limit (8-hour TWA): WEL 5 ppm 20 mg/m³ Austria
 Long-term exposure limit (8-hour TWA): WEL 10 ppm 40.8 mg/m³ Belgium, European Union, France, Ireland, Italy, Latvia
 Long-term exposure limit (8-hour TWA): WEL 10 ppm 40 mg/m³ Denmark
 Long-term exposure limit (8-hour TWA): WEL 10 ppm 41 mg/m³ Finland, Spain, Sweden
 Long-term exposure limit (8-hour TWA): WEL 20 ppm 80 mg/m³ Germany (AGS)
 Long-term exposure limit (8-hour TWA): WEL 40.8 mg/m³ Hungary
 Long-term exposure limit (8-hour TWA): WEL 40 mg/m³ Poland
 Long-term exposure limit (8-hour TWA): WEL 25 ppm 100 mg/m³ Switzerland
 Long-term exposure limit (8-hour TWA): WEL 10 ppm 39 mg/m³ United Kingdom
 Short-term exposure limit (15-minute): WEL 20 ppm 80 mg/m³ Austria, Denmark, Germany (AGS)
 Short-term exposure limit (15-minute): WEL 20 ppm 81.6 mg/m³ Belgium, European Union, France, Ireland, Italy, Latvia
 Short-term exposure limit (15-minute): WEL 20 ppm 82 mg/m³ Finland, Spain
 Short-term exposure limit (15-minute): WEL 81.6 mg/m³ Hungary
 Short-term exposure limit (15-minute): WEL 80 Poland
 Short-term exposure limit (15-minute): WEL 20 ppm 81 mg/m³ Sweden
 Short-term exposure limit (15-minute): WEL 50 ppm 200 mg/m³ Switzerland
 Short-term exposure limit (15-minute): WEL 50 mg/m³ The Netherlands
 Short-term exposure limit (15-minute): WEL 20 ppm 78 mg/m³ United Kingdom
 Sk

WEL = Workplace Exposure Limit

Sk = Can be absorbed through the skin.

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

M380 Black Offset Ink

9.1. Information on basic physical and chemical properties

Appearance	Coloured liquid.
Colour	Black.
Odour	Ester. Ketonic.
Odour threshold	Not available.
pH	pH (concentrated solution): 6.0 - 8.5
Melting point	-20°C/-4°F
Initial boiling point and range	155°C/311°F @ 760 mm Hg
Flash point	44°C/111°F CC (Closed cup).
Evaporation rate	0.38 (butyl acetate = 1)
Upper/lower flammability or explosive limits	Upper flammable/explosive limit: 9.4 % vol Lower flammable/explosive limit: 0.9 % vol
Vapour pressure	3.4 mm Hg @ 20°C/68°F
Vapour density	5.5
Relative density	1.063 g/cm ³ 1063 g/l 8.86 lbs/gal
Solubility(ies)	Miscible with the following materials: Esters. Ketones. Slightly soluble in water.
Partition coefficient	log Pow: 0.81
Auto-ignition temperature	398°C/750°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 686 g/l. This product contains a maximum VOC content of 5.71 lbs/gal.
----------------------------------	--

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	There are no known reactivity hazards associated with this product.
-------------------	---

10.2. Chemical stability

Stability	Stable at normal ambient temperatures and when used as recommended.
------------------	---

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.
---	--

10.4. Conditions to avoid

Conditions to avoid	Avoid the following conditions: Heat, sparks, flames.
----------------------------	---

M380 Black Offset Ink

10.5. Incompatible materials

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

10.6. Hazardous decomposition products

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

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects Data based on literature. Product not tested.

Acute toxicity - inhalation

ATE inhalation (vapours mg/l) 17.05

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 Gastro-intestinal tract Kidneys Liver Reproductive organs 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.

Cyclohexanone

Acute toxicity - oral

ATE oral (mg/kg) 500.0

Acute toxicity - inhalation

ATE inhalation (vapours mg/l) 11.0

Carcinogenicity

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

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

M380 Black Offset Ink

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.

Cyclohexanone

Acute toxicity - aquatic invertebrates EC₅₀, 24 hours: 820 mg/l, Daphnia magna

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.

Cyclohexanone

Biodegradation - 90 - 100:

Dibasic Ester

Biodegradation The substance is readily biodegradable.

12.3. Bioaccumulative potential

Partition coefficient log Pow: 0.81

Ecological information on ingredients.

Dibasic Ester

Bioaccumulative potential The product is not bioaccumulating.

M380 Black Offset Ink

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

M380 Black Offset Ink

Transport labels



14.4. Packing group

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

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

EmS	F-E, S-D
ADR transport category	2
Emergency Action Code	•3YE
Hazard Identification Number (ADR/RID)	33
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).
----------------	--

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:

Cyclohexanone

Dibasic Ester

Japan - MITI

The following ingredients are listed or exempt:

M380 Black Offset Ink

Cyclohexanone

Dibasic Ester

Korea - KECI

The following ingredients are listed or exempt:

Cyclohexanone

Dibasic Ester

China - IECSC

The following ingredients are listed or exempt:

Cyclohexanone

Dibasic Ester

Philippines – PICCS

The following ingredients are listed or exempt:

Cyclohexanone

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	5721
SDS status	Approved.
Risk phrases in full	R10 Flammable. R20 Harmful by inhalation. R36/37/38 Irritating to eyes, respiratory system and skin. R36/38 Irritating to eyes and skin. R40 Limited evidence of a carcinogenic effect. R65 Harmful: may cause lung damage if swallowed. R67 Vapours may cause drowsiness and dizziness.
Hazard statements in full	H226 Flammable liquid and vapour. H315 Causes skin irritation. H319 Causes serious eye irritation. H332 Harmful if inhaled. H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness.

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.