

INK 111 BLACK**Safety data sheet according to U.S.A. Federal Hazcom 2012****SECTION 1. Identification of the substance/mixture and of the company/undertaking.****1.1. Product identifier.**

Code: 111
Product name: **INK 111 BLACK**

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

Intended use: **Printing Ink Industrial Use.**

1.3. Details of the supplier of the safety data sheet.

Name: **MarCode Inc. dba Zanasi USA**
Full address: **9490 Hemlock Lane N**
District and Country: **55369 Maple Grove, Minnesota**
United States of America
Tel. **763-593-1907**
Fax.

1.4. Emergency telephone number.

For urgent inquiries refer to: **For Hazardous Materials [or Dangerous Goods] Incident**
Spill, Leak, Fire, Exposure, or Accident
Call CHEMTREC Day or Night
Within USA and Canada: 1-800-424-9300

SECTION 2. Hazards identification.**2.1. Classification of the substance or mixture.**

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.

Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Flammable liquid, category 2

Serious eye damage, category 1

Specific target organ toxicity - single exposure, category 3

Highly flammable liquid and vapour.

Causes serious eye damage.

May cause drowsiness or dizziness.

Hazard pictograms:



Signal words: **Danger**

Hazard statements:

H225 Highly flammable liquid and vapour.
H318 Causes serious eye damage.
H336 May cause drowsiness or dizziness.

Precautionary statements:

Prevention:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
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.
P261 Avoid breathing dust / fume / gas / mist / vapours / spray.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves / eye protection / face protection.

Response:

P303+P361+P353 IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water / shower.

INK 111 BLACK**SECTION 2. Hazards identification. ... / >>**

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.
P310	Immediately call a POISON CENTER / doctor / . . .
P370+P378	In case of fire: use . . . to extinguish.
Storage:	
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.
Disposal:	
P501	Dispose of contents / container to . . .

2.2. Other hazards.

Environmental classification as for Reg. (EU) 1272/2008 (CLP):

The product is classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

Classification and Hazard Statement.

Hazardous to the aquatic environment, chronic toxicity, category 3 Harmful to aquatic life with long lasting effects.

Hazard statements:

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

Prevention:

P273 Avoid release to the environment.

Response:

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Storage:

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Disposal:

P501 Dispose of contents / container to . . .

Additional hazards.

Repeated exposure may cause skin dryness or cracking.

Additional hazards.

Repeated exposure may cause skin dryness or cracking.

SECTION 3. Composition/information on ingredients.**3.1. Substances.**

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	x = Conc. %.	Classification:
METHYL ETHYL KETONE		
CAS. 78-93-3	50	Flammable liquid, category 2 H225, Eye irritation, category 2 H319, Specific target organ toxicity - single exposure, category 3 H336
EC. 201-159-0		
INDEX. 606-002-00-3		
INERT		
CAS.	18.7	
EC.		
INDEX.		
ETHANOL		
CAS. 64-17-5	10	Flammable liquid, category 2 H225
EC. 200-578-6		
INDEX. 603-002-00-5		
1-METHOXY-2-PROPANOL		
CAS. 107-98-2	8	Flammable liquid, category 3 H226, Specific target organ toxicity - single exposure, category 3 H336
EC. 203-539-1		
INDEX. 603-064-00-3		

INK 111 BLACK**SECTION 3. Composition/information on ingredients.** ... / >>**METAL COMPLEX DYE**

CAS. 117527-94-3 6

EC. 403-720-7

INDEX.

Hazardous to the aquatic environment, chronic toxicity, category 2 H411

BUTANOL

CAS. 71-36-3 5

EC. 200-751-6

INDEX. 603-004-00-6

Flammable liquid, category 3 H226, Acute toxicity, category 4 H302, Serious eye damage, category 1 H318, Skin irritation, category 2 H315, Specific target organ toxicity - single exposure, category 3 H335, Specific target organ toxicity - single exposure, category 3 H336

PROPAN-2-OL

CAS. 67-63-0 2.3

EC. 200-661-7

INDEX. 603-117-00-0

Flammable liquid, category 2 H225, Eye irritation, category 2 H319, Specific target organ toxicity - single exposure, category 3 H336

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.**4.1. Description of first aid measures.**

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

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

Specific information on symptoms and effects caused by the product are unknown.

For symptoms and effects caused by the contained substances, see chap. 11.

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

Information not available.

SECTION 5. Firefighting measures.**5.1. Extinguishing media.**

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.

5.3. Advice for firefighters.

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.**6.1. Personal precautions, protective equipment and emergency procedures.**

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

INK 111 BLACK**SECTION 6. Accidental release measures. ... / >>****6.2. Environmental precautions.**

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.**7.1. Precautions for safe handling.**

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Vapours may catch fire and an explosion may occur; vapour accumulation is therefore to be avoided by leaving windows and doors open and ensuring good cross ventilation. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire.

Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Store in a well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Information not available.

SECTION 8. Exposure controls/personal protection.**8.1. Control parameters.**

Regulatory References:

USA	NIOSH-REL	NIOSH publication No. 2005-149, 3th printing, 2007.
USA	OSHA-PEL	Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-1910.1000.
USA	CAL/OSHA-PEL	California Division of Occupational Safety and Health (Cal-OSHA) Permissible Exposure Limits (PELs).
EU	OEL EU TLV-ACGIH	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC. ACGIH 2016

METHYL ETHYL KETONE**Threshold Limit Value.**

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OEL	EU	600	200	900	300
TLV-ACGIH	-	590	200	885	300
OSHA	USA	590	200		
CAL/OSHA	USA	590	200	885	300
NIOSH	USA	590	200	885	300

ETHANOL**Threshold Limit Value.**

Type	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-			1884	1000
OSHA	USA	1900	1000		
CAL/OSHA	USA	1.9	1		
NIOSH	USA	1900	1000		

INK 111 BLACK**SECTION 8. Exposure controls/personal protection. ... / >>****1-METHOXY-2-PROPANOL****Threshold Limit Value.**

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
OEL	EU	375	100	568	150	SKIN.
TLV-ACGIH	-	184	50	368	100	
CAL/OSHA	USA	360	100	540	150	SKIN.
NIOSH	USA	360	100	540	150	

BUTANOL**Threshold Limit Value.**

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
TLV-ACGIH	-	61	20			
OSHA	USA	300	100			
CAL/OSHA	USA	150	50			SKIN.
NIOSH	USA			150 (C)	50 (C)	SKIN.

PROPAN-2-OL**Threshold Limit Value.**

Type	Country	TWA/8h		STEL/15min		
		mg/m3	ppm	mg/m3	ppm	
TLV-ACGIH	-	492	200	983	400	
OSHA	USA	980	400			
CAL/OSHA	USA	980	400	1225	500	
NIOSH	USA	980	400	1225	500	

Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must comply with current regulations.

HAND PROTECTION

Protect hands with category III work gloves (OSHA 29 CFR 1910.138).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear airtight protective goggles (OSHA 29 CFR 1910.133).

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.

ENVIRONMENTAL EXPOSURE CONTROLS.

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

SECTION 9. Physical and chemical properties.**9.1. Information on basic physical and chemical properties.**

Appearance	liquid
Colour	black
Odour	characteristic of solvent

INK 111 BLACK**SECTION 9. Physical and chemical properties. ... / >>**

Odour threshold.	100 ppm
pH.	5.9
Melting point / freezing point.	Not available.
Initial boiling point.	78 °C. (172,4 °F)
Boiling range.	Not available.
Flash point.	< 23 °C. (73,4 °F)
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Lower inflammability limit.	1.8 % (V/V).
Upper inflammability limit.	13 % (V/V).
Lower explosive limit.	1.8 % (V/V).
Upper explosive limit.	13 % (V/V).
Vapour pressure.	80-90 mmHg
Vapour density	Not available.
Relative density.	0,85-0,90
Solubility	partially miscible
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature.	Not available.
Decomposition temperature.	Not available.
Viscosity	Not available.
Explosive properties	Not available.
Oxidising properties	Not available.
9.2. Other information.	
Total solids (250°C / 482°F)	24,70 %

SECTION 10. Stability and reactivity.**10.1. Reactivity.**

There are no particular risks of reaction with other substances in normal conditions of use.

METHYL ETHYL KETONE

Reacts with: light metals, strong oxidants. Attacks various types of plastic materials. Decomposes under the effect of heat.

1-METHOXY-2-PROPANOL

Dissolves various plastic materials. Stable in normal conditions of use and storage.
Absorbs and dissolves in water and in organic solvents. With air it may slowly form explosive peroxides.

BUTANOL

Attacks various types of plastic materials.

10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions.

The vapours may also form explosive mixtures with the air.

METHYL ETHYL KETONE

May form peroxides with: air, light, strong oxidising agents. Risk of explosion on contact with: hydrogen peroxide, nitric acid, sulphuric acid. May react dangerously with: oxidising agents, trichloromethane, alkalis. Forms explosive mixtures with: air.

ETHANOL

Risk of explosion on contact with: alkaline metals, alkaline oxides, calcium hypochlorite, sulphur monofluoride, acetic anhydride, acids, concentrated hydrogen peroxide, perchlorates, perchloric acid, perchloronitrile, mercury nitrate, nitric acid, silver, silver nitrate, ammonia, silver oxide, ammonia, strong oxidising agents, nitrogen dioxide. May react dangerously with: bromoacetylene, chlorine acetylene, bromine trifluoride, chromium trioxide, chromyl chloride, fluorine, potassium tert-butoxide, lithium hydride, phosphorus trioxide, black platinum, zirconium (IV) chloride, zirconium (IV) iodide. Forms explosive mixtures with: air.

1-METHOXY-2-PROPANOL

May react dangerously with: strong oxidising agents, strong acids.

BUTANOL

Reacts violently developing heat on contact with: aluminium, strong oxidising agents, strong reducing agents, hydrochloric acid. Forms explosive mixtures with: air.

INK 111 BLACK**SECTION 10. Stability and reactivity.** ... / >>**10.4. Conditions to avoid.**

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

METHYL ETHYL KETONE

Avoid exposure to: sources of heat.

ETHANOL

Avoid exposure to: sources of heat,naked flames.

1-METHOXY-2-PROPANOL

Avoid exposure to: air.

BUTANOL

Avoid exposure to: sources of heat,naked flames.

10.5. Incompatible materials.**METHYL ETHYL KETONE**

Incompatible with: strong oxidants,inorganic acids,ammonia,copper,chloroform.

1-METHOXY-2-PROPANOL

Incompatible with: oxidising substances,strong acids,alkaline metals.

10.6. Hazardous decomposition products.

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

SECTION 11. Toxicological information.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.

It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

11.1. Information on toxicological effects.**1-METHOXY-2-PROPANOL**

The main way of entry is the skin, whereas the respiratory way is less important owing to the low vapour tension of the product.

Concentrations above 100 ppm cause eye irritation, nose and oropharynx. At 1000 ppm disturbance in the equilibrium and severe eye irritation is observed. Clinical and biological examinations carried out on exposed volunteers revealed no anomalies. Acetate produces greater skin and ocular irritation on direct contact. No chronic effects have been reported in man.

ACUTE TOXICITY.

LC50 (Inhalation - vapours) of the mixture:	Not classified (no significant component).
LC50 (Inhalation - mists / powders) of the mixture:	Not classified (no significant component).
LD50 (Oral) of the mixture:	>2000 mg/kg
LD50 (Dermal) of the mixture:	Not classified (no significant component).

ETHANOL

LD50 (Oral).	> 5000 mg/kg Rat
LC50 (Inhalation).	120 mg/l/4h Pimephales promelas

BUTANOL

LD50 (Oral).	790 mg/kg Rat
LD50 (Dermal).	3400 mg/kg Rabbit
LC50 (Inhalation).	8000 ppm/4h Rat

1-METHOXY-2-PROPANOL

LD50 (Oral).	5300 mg/kg Rat
LD50 (Dermal).	13000 mg/kg Rabbit
LC50 (Inhalation).	54.6 mg/l/4h Rat

PROPAN-2-OL

LD50 (Oral).	4710 mg/kg Rat
LD50 (Dermal).	12800 mg/kg Rat
LC50 (Inhalation).	72.6 mg/l/4h Rat

INK 111 BLACK**SECTION 11. Toxicological information. ... / >>****METHYL ETHYL KETONE**

LD50 (Oral).	2737 mg/kg Rat
LD50 (Dermal).	6480 mg/kg Rabbit
LC50 (Inhalation).	23.5 Rat

METAL COMPLEX DYE

LD50 (Oral).	> 2000 mg/kg Rat
LD50 (Dermal).	> 2000 mg/kg Rat

Carcinogenicity Assessment:

64-17-5	ETHANOL
ACGIH:: A3	
IARC:1	
107-98-2	1-METHOXY-2-PROPANOL
ACGIH:: A4	
67-63-0	PROPAN-2-OL
IARC:3	

SKIN CORROSION / IRRITATION.

Does not meet the classification criteria for this hazard class.

SERIOUS EYE DAMAGE / IRRITATION.

Causes serious eye damage.

RESPIRATORY OR SKIN SENSITISATION.

Does not meet the classification criteria for this hazard class.

GERM CELL MUTAGENICITY.

Does not meet the classification criteria for this hazard class.

CARCINOGENICITY.

Does not meet the classification criteria for this hazard class.

REPRODUCTIVE TOXICITY.

Does not meet the classification criteria for this hazard class.

STOT - SINGLE EXPOSURE.

May cause drowsiness or dizziness.

STOT - REPEATED EXPOSURE.

Does not meet the classification criteria for this hazard class.

ASPIRATION HAZARD.

Does not meet the classification criteria for this hazard class.

SECTION 12. Ecological information.

This product is dangerous for the environment and the aquatic organisms. In the long term, it have negative effects on aquatic environment.

12.1. Toxicity.**METAL COMPLEX DYE**

LC50 - for Fish.	2 mg/l/96h Fish
EC50 - for Crustacea.	1000 mg/l/48h Daphnia Magna

12.2. Persistence and degradability.**ETHANOL**

Solubility in water.	1000 - 10000 mg/l
Rapidly biodegradable.	

BUTANOL

Solubility in water.	1000 - 10000 mg/l
Rapidly biodegradable.	

INK 111 BLACK**SECTION 12. Ecological information.** ... / >>

1-METHOXY-2-PROPANOL
Solubility in water. 1000 - 10000 mg/l
Rapidly biodegradable.

PROPAN-2-OL
Rapidly biodegradable.

METHYL ETHYL KETONE
Solubility in water. > 10000 mg/l
Rapidly biodegradable.

12.3. Bioaccumulative potential.

ETHANOL
Partition coefficient: n-octanol/water. -0.35

BUTANOL
Partition coefficient: n-octanol/water. 1
BCF. 3.16

1-METHOXY-2-PROPANOL
Partition coefficient: n-octanol/water. < 1

PROPAN-2-OL
Partition coefficient: n-octanol/water. 0.05

METHYL ETHYL KETONE
Partition coefficient: n-octanol/water. 0.3

12.4. Mobility in soil.

BUTANOL
Partition coefficient: soil/water. 0.388

12.5. Results of PBT and vPvB assessment.

Information not available.

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.**13.1. Waste treatment methods.**

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.**14.1. UN number.**

ADR / RID, IMDG, IATA: 1210

14.2. UN proper shipping name.

ADR / RID: PRINTING INK or PRINTING INK RELATED MATERIAL
IMDG: PRINTING INK or PRINTING INK RELATED MATERIAL
IATA: PRINTING INK or PRINTING INK RELATED MATERIAL

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SECTION 14. Transport information. ... / >>

14.3. Transport hazard class(es).

ADR / RID: Class: 3 Label: 3



IMDG: Class: 3 Label: 3



IATA: Class: 3 Label: 3



14.4. Packing group.

ADR / RID, IMDG, IATA: II

14.5. Environmental hazards.

ADR / RID: NO
IMDG: NO
IATA: NO

14.6. Special precautions for user.

ADR / RID:	HIN - Kemler: 33 Special Provision: 640D	Limited Quantities: 5 L	Tunnel restriction code: (D/E)
IMDG:	EMS: F-E, S-D	Limited Quantities: 5 L	
IATA:	Cargo: Pass.: Special Instructions:	Maximum quantity: 60 L Maximum quantity: 5 L A3, A72, A192	Packaging instructions: 364 Packaging instructions: 353

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code.

Information not relevant.

SECTION 15. Regulatory information.

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

U.S. Federal Regulations.Clean Air Act Section 112(b):78-93-3 METHYL ETHYL KETONE
107-98-2 1-METHOXY-2-PROPANOL (Glycol ethers)Clean Air Act Section 602 Class I Substances:

No component(s) listed.

Clean Air Act Section 602 Class II Substances:

No component(s) listed.

Clean Water Act – Priority Pollutants:

No component(s) listed.

Clean Water Act – Toxic Pollutants:

No component(s) listed.

DEA List I Chemicals (Precursor Chemicals):

No component(s) listed.

DEA List II Chemicals (Essential Chemicals):

78-93-3 METHYL ETHYL KETONE

INK 111 BLACK

SECTION 15. Regulatory information. ... / >>

EPA List of Lists:

313 Category Code:

71-36-3	BUTANOL
107-98-2	1-METHOXY-2-PROPANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

EPCRA 302 EHS TPQ:

No component(s) listed.

EPCRA 304 EHS RQ:

No component(s) listed.

CERCLA RQ:

71-36-3	BUTANOL
78-93-3	METHYL ETHYL KETONE

EPCRA 313 TRI:

71-36-3	BUTANOL
107-98-2	1-METHOXY-2-PROPANOL (Glycol ethers)
67-63-0	PROPAN-2-OL

RCRA Code:

71-36-3	BUTANOL
78-93-3	METHYL ETHYL KETONE

CAA 112 (r) RMP TQ:

No component(s) listed.

State Regulations.Massachusetts:

78-93-3	METHYL ETHYL KETONE
64-17-5	ETHANOL
107-98-2	1-METHOXY-2-PROPANOL (Glycol ethers)
71-36-3	BUTANOL
67-63-0	PROPAN-2-OL

Minnesota:

78-93-3	METHYL ETHYL KETONE
64-17-5	ETHANOL
107-98-2	1-METHOXY-2-PROPANOL (Glycol ethers)
71-36-3	BUTANOL
67-63-0	PROPAN-2-OL

New Jersey:

78-93-3	METHYL ETHYL KETONE
64-17-5	ETHANOL
107-98-2	1-METHOXY-2-PROPANOL (Glycol ethers)
71-36-3	BUTANOL
67-63-0	PROPAN-2-OL

New York:

78-93-3	METHYL ETHYL KETONE
71-36-3	BUTANOL

Pennsylvania:

78-93-3	METHYL ETHYL KETONE
64-17-5	ETHANOL
107-98-2	1-METHOXY-2-PROPANOL (Glycol ethers)
71-36-3	BUTANOL
67-63-0	PROPAN-2-OL

California:

78-93-3	METHYL ETHYL KETONE
64-17-5	ETHANOL
107-98-2	1-METHOXY-2-PROPANOL (Glycol ethers)
71-36-3	BUTANOL
67-63-0	PROPAN-2-OL

INK 111 BLACK**SECTION 15. Regulatory information. ... / >>**Proposition 65:

This product does not contain any substances know to the State of California to cause cancer, reproductive harm or birth defects.

International Regulations.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Candadian WHMIS.

Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Flam. Liq. 2	Flammable liquid, category 2
Flam. Liq. 3	Flammable liquid, category 3
Acute Tox. 4	Acute toxicity, category 4
Eye Dam. 1	Serious eye damage, category 1
Eye Irrit. 2	Eye irritation, category 2
Skin Irrit. 2	Skin irritation, category 2
STOT SE 3	Specific target organ toxicity - single exposure, category 3
Aquatic Chronic 2	Hazardous to the aquatic environment, chronic toxicity, category 2
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.

LEGEND:

- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 @ RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112@)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value

INK 111 BLACK**SECTION 16. Other information. ... / >>**

- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:

- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Communication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachusetts 105 CMR Department of public health 670.000: "Right to Know"
- Minnesota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website
- Pennsylvania, Hazardous Substance List, Chapter 323

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review:

The following sections were modified:

03 / 09.