



SAFETY DATA SHEET

Product Name:

Polymer Thermal Solvent Inkjet Ink

Product Code:

AMI QDX, 9BKX, 10BKX ®

1. Identification

Product identifier AMI QDX, 9BKX, 10BKX ®

Other means of identification Polymer Thermal Solvent Inkjet Ink

Recommended use Thermal Ink Jet Printing Ink

Company identification Automated Marking Inc
200 Business Park Drive, Suite 310
Armonk, NY 10504
Business Hours: 9:30am - 5:30pm ET
(U.S Time) Monday - Friday
Telephone: 914 - 495 - 3807
Facsimile: 914 - 495 - 3810

2. Hazards Identification

GHS Classification of the product Flammable liquids (Category 2)

Label elements



GHS02



GHS06



GHS07



GHS08



GHS09

Signal word Danger

Hazard statements H225 Highly flammable liquid and vapor.
H301 + H331 Toxic if swallowed or if inhaled.
H312 Harmful in contact with skin.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
H370 Causes damage to organs (central nervous system).
H411 Toxic to aquatic life with long lasting effects.

Precautionary statement (Prevention) P210 Keep away from heat/sparks/open flames/hot surfaces. –No smoking.
P233 Keep container tightly closed.
P241 Use explosion-proof electrical/ventilating/lighting/equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P264 Wash hands and skin thoroughly after handling.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P370 + P378 In case of fire: for small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam to extinguish. For large fires, use water spray, fog, or alcohol-resistant foam to extinguish. Use water spray to blanket fire, cool fire-exposed containers and to flush non-ignited spills or vapour away from fire.



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Precautionary statement (Response)	P303 + P361 + P352 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. P205 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. P337 + P313 If eye irritation persists get medical advice/attention. P301 + P330 + P331 + P315: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Get immediate medical advice/attention. P308 + P313 IF exposed or concerned: Get medical advice/attention.
Precautionary statement (Storage)	P410 + P403 + P235 Protect from sunlight. Store in a well-ventilated place. Keep cool.
Precautionary statement (Disposal)	P501 Dispose of contents/container in accordance with applicable local, regional, national, and/or international regulations.
Hazard(s) not otherwise classified	Not classified.
Environmental hazards	Hazardous to the aquatic environment, long-term hazard Category 2

3. Composition/ Information on Ingredients

Hazardous Components (Chemical Name)	CAS Number	%	EC No/ EC index No	GHS Classification
Ethyl alcohol	64-17-5	>45	200-578-6 603-002-00-5	Flam. Liq. 2: H225 Eye Irrit. 2: H319
Methyl alcohol	67-56-1	<30	200-659-6 603-001-00-X	Flam. Liq. 2: H225 Acute Tox. O. 3: H301 Acute Tox. D. 3: H311 Acute Tox. I. 3: H331 STOT SE1: H370
2-Butanone	78-93-3	<8	201-159-0 606-002-00-3	Flam. Liq. 2: H225 Eye Irrit. 2: H319 STOT SE3: H336
2-Heptanone	110-43-0	<1	203-767-1 606-024-00-3	Flam. Liq. 3: H226 Acute Tox. O. 4: H302 Acute Tox. I. 4: H332 STOT SE3: H336
2:1 Chromium complex Azo dye Black	117527-94-3	<7	403-720-7 611-044-00-0	Aquatic Chronic 2

4. First-Aid Measures

Inhalation	Move person to fresh air immediately. If symptoms persist, get immediate medical attention.
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Skin contact	In case of contact, take off immediately all contaminated clothing and wash skin thoroughly with soap and plenty of water. Wash clothing separately before reuse. Get medical advice/attention.
Eye contact	In case of eye contact, remove contact lens and rinse immediately with plenty of water for at least 15 minutes, lift lower and upper eyelids occasionally. Get medical attention immediately.
Ingestion	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. If the material is swallowed, get medical attention or advice immediately.

Most important symptoms/effects, acute and delayed See section 2 and section 8.

5. Fire-Fighting Measures

FLASH POINT:	<23°C (closed-cup).
Suitable extinguishing media	Suitable extinguishing media: water, dry chemical or carbon dioxide (CO ₂).
Unsuitable extinguishing media	Not available.
Specific hazards arising from the chemical	Alcohols can react vigorously with oxidizers.
Specific protective equipment and precautions for firefighters	Firefighters should wear full protective clothing including self-contained breathing apparatus. Avoid run off into storm sewers and ditches which lead to waterways.
Fire-fighting equipment/instructions	Move containers from fire area if you can do it without risk.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	Restrict access to area. Keep unprotected personnel upwind of spill. Remove all sources of ignition. Provide adequate ventilation. Avoid contact with skin. Avoid inhalation of vapors or mists. Protect skin and eyes from exposure. Wear appropriate personal protective equipment. In the case of vapor formation use a respirator with an approved filter.
Environmental precautions	Contain contaminated water/firefighting water. Transfer to suitable disposal container. Do not discharge into drains/surface waters/groundwater.
Methods and materials for containment and cleaning up	Not available.



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7. Handling and Storage

Precautions for safe handling

Avoid contact with skin, eye and clothing. Avoid breathing vapors or mists of this product.
Use with adequate ventilation.
Wear personal protective equipment.

Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in cool, dry, well-ventilated, fire resistant areas. Store out of direct sunlight, away from oxidizing agents and sources of heat or ignition.

8. Exposure Controls/Personal Protection

Occupational exposure limits

Component	CAS	US	EU	UK
Ethyl alcohol	64-17-5	1000 ppm TWA OSHA PEL 1000 ppm STEL ACGIH TLV	None established	1000 ppm TWA
Methyl alcohol	67-56-1	200 ppm TWA OSHA PEL 200 ppm TWA 250 ppm STEL skin ACGIH TLV	200 ppm TWA skin	200 ppm TWA 250 ppm STEL
2-Butanone	78-93-3	200 ppm TWA OSHA PEL 300 ppm STEL ACGIH TLV	200 ppm TWA 300 ppm STEL	200 ppm TWA 300 ppm STEL
2-Heptanone	110-43-0	100 ppm TWA OSHA PEL 50 ppm ACGIH TLV	50 ppm TWA 100 ppm STEL skin	100 ppm TWA

Biological limit values

No biological exposure limits noted for the ingredients.

Appropriate engineering controls

Local exhaust to minimize concentration of alcohol vapors recommended.

Individual protection measures, such as personal protective equipment**Eye/face protection**

Wear safety glasses, glasses with side shields or chemical goggles (if splashing is possible).

Hand protection

Wear appropriate chemical resistant gloves.



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Skin protection	Wear long sleeved clothing.
Respiratory protection	None required under normal conditions of use. In case of insufficient ventilation, wear suitable respiratory equipment.
General hygiene Considerations	Appropriate protective clothing for the work situation to minimize skin contact. Eyewash stations and safety showers should be available in areas of handling and use. When using the product, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product.

9. Physical and Chemical Properties

Appearance	Black liquid
Odor	Slight odor
Odor threshold	Not available
pH	Not available
Melting point/freezing point	Not available
Initial boiling point and boiling range	>70°C
Flash point	<23°C (closed-cup)
Evaporation rate	Not available
Flammability (solid, gas)	Not applicable
Upper/lower flammability or explosive limits	
Flammability limit – lower (%)	Not available
Flammability limit – upper (%)	Not available
Explosive limit – lower (%)	Not available
Explosive limit – upper (%)	Not available
Vapor pressure	Not available
Vapor density	Not available



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Solubility Soluble in ethyl alcohol, methyl alcohol

**Partition coefficient:
n-octanol/water** Not available

**Auto-ignition
temperature** Not available

**Decomposition
temperature** Not available

Viscosity (cPs) Not available

10. Stability and Reactivity

Reactivity Not available

Chemical stability Stable in normal conditions

**Possibility of hazardous
reactions** Not known

Conditions to avoid Heat, sparks, flames

Incompatible materials Capable of reacting vigorously with oxidizing agents, such as nitrates, perchlorates, peroxides, sulfuric acid, nitric acid, etc.

**Hazardous
decomposition
products** Carbon dioxide (CO₂), Carbon monoxide (CO), and nitrogen oxides.

11. Toxicological Information

**Symptoms related to
the physical, chemical
and toxicological
characteristics** Not available

**Information on
toxicological effects**

Acute toxicity/Effects

Components	Type of value	Species	Test results
Ethyl alcohol (CAS 64-17-5)			
Inhalation	LC50	Rat	30000 mg/L, 4 Hours
Oral	LD50	Rat	10470 mg/kg
Dermal	LD50	Rabbit	15800 mg/kg



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Methyl alcohol (CAS 67-56-1)

Inhalation	LC50	Rat	128.2mg/L, 4 Hours 87.6 mg/L, 6 Hours
Oral	LD50 LDLO	Rat Human	1187-2769 mg/kg 143 mg/kg
Dermal	LD50	Rabbit	17100 mg/kg

2-Butanone (CAS 78-93-3)

Inhalation	LC50	Mouse	32 mg/L/4 Hours
Oral	LD50	Rat	2737 mg/kg
Dermal	LD50	Rabbit	2480 mg/kg

2-Heptanone (CAS 110-43-0)

Inhalation	LC50	Rat	>16.7mg/L/4 Hours
Oral	LD50	Rat	1600 mg/kg
Dermal	LD50	Rat	>2000 mg/kg

Likely routes of exposure

Ingestion Toxic. Small amounts swallowed may cause injury.

Skin irritation/corrosion Contact may cause skin irritation with local redness. Harmful if absorbed through the skin.

Inhalation May cause adverse effects.

**Serious eye damage/
eye irritation** May cause adverse effects.

Sensitizing effects Based on available data, the classification criteria are not met.
Not classified.

**Specific target organ
toxicity
-single exposure** Based on available data, the classification criteria are not met.

**Specific target organ
toxicity
-repeated exposure** Based on available data, the classification criteria are not met.



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- Aspiration hazard** Based on available data, the classification criteria are not met.
- Carcinogenicity** Based on available data, the classification criteria are not met.
- Additional information** Signs and symptoms of excessive exposure may be anesthetic or narcotic effects; dizziness and drowsiness may be observed.

12. Ecological Information

Toxicity

Ethyl alcohol (CAS 64-17-5)

	Type of value	Species	Test results
Toxicity to fish	LC50	Pimephales promelas (fathead minnow)	14200 mg/l, 96 Hours
Toxicity to daphnia and other aquatic invertebrates	LC50 NOEC	Ceriodaphnia dubia (water flea) Daphnia magna (Water flea)	5012 mg/l, 48 Hours 9.6 mg/l, 9 Days
Toxicity to algae	EC50	Chlorella vulgaris (Fresh water algae)	275 mg/l, 72 Hours

Methyl alcohol (CAS 67-56-1)

	Type of value	Species	Test results
Toxicity to fish	LC50 NOEC	Lepomis macrochirus (Bluegill) Oryzias latipes	15400 mg/l, 96 Hours 7900 mg/l, 200 Hours
Toxicity to daphnia and other aquatic invertebrates	EC50	Daphnia magna (Water flea)	>10000 mg/l, 48 Hours
Toxicity to algae	EC50	Scenedesmus capricornutum (Fresh water algae)	22000 mg/l, 96 Hours

2-Butanone (CAS 78-93-3)

	Type of value	Species	Test results
Toxicity to fish	NOEC	Cyprinodon variegatus (sheepshead minnow)	400 mg/l, 96 Hours
	LC50	Pimephales promelas (fathead minnow)	3130-3320 mg/l, 96 Hours
Toxicity to daphnia and other aquatic invertebrates	LC50 EC50	Daphnia magna (Water flea) Daphnia magna (Water flea)	> 520 mg/l, 48 Hours 7060 mg/l, 24 Hours



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2-Heptanone
(CAS 110-43-0)

	Type of value	Species	Test results
Toxicity to fish	LC50	Pimephales promelas (fathead minnow)	126-137 mg/l, 96 Hours
Toxicity to daphnia and other aquatic invertebrates	semi-static test EC50	Daphnia magna (Water flea)	> 90 mg/l, 48 Hours
Toxicity to algae	static test EC50	Pseudokirchneriella subcapitata (Selenastrum capricornutum)	98.2 mg/l, 72 Hours
Other information	Not available.		

13. Disposal Considerations

Disposal instructions Do not flush into surface water or sanitary sewer system.
Do not dispose of together with general office waste.
Treat or dispose of waste in accordance with all local, state/provincial, and national regulations.

14. Transport Information

DOT

UN Number	UN1210
UN proper shipping name	Printing ink (Ethyl alcohol, methyl alcohol, 2-Butanone)
Transport hazard class(es)	3
Packaging group	II
Hazard label	3
Special precautions for user	DOT Classification only applies to shipments within the US and Puerto Rico.
Labels required	Not available.

IATA

UN Number UN1210



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UN proper shipping name Printing ink (Ethyl alcohol, methyl alcohol, 2-Butanone)

Transport hazard class(es) 3



Packaging group II

Hazard label 3

Environmental hazards No

Label required Not available.

EGR Code Not available.

Special precautions for user Not available.

IMDG

UN Number UN1210

UN proper shipping name Printing ink (Ethyl alcohol, methyl alcohol, 2-Butanone)

Transport hazard class(es) 3



Packaging group II

Hazard label 3

Environmental hazards No
Marine pollutant

Label required Not available.

EmS Not available.

Special precautions for user Not available.

15. Regulatory Information

US federal regulations US EPA TSCA Inventory: All chemical substances in this product comply with all rules or orders under TSCA.



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**TSCA Section 12(b)
Export Notification
(40 CFR 707, Subpt. D)** Not regulated.

**US OSHA Specifically
Regulated Substances
(29 CFR 1910.1001-1050)** Not on regulatory list.

**CERCLA Hazardous
Substance List
(40 CFR 302.4)** Methyl alcohol (CAS 67-56-1) Reportable quantity: 5000 lbs.
2-Butanone (CAS 78-93-3) Reportable quantity: 5000 lbs.

**NIOSH-Ca (National
Institute for
Occupational
Safety and Health)** Not on regulatory list.

US state regulations

**US Massachusetts RTK-
Substance List** Ethyl alcohol (CAS 64-17-5)
Methyl alcohol (CAS 67-56-1)
2-Butanone (CAS 78-93-3)
2-Heptanone (CAS 110-43-0)

**US New Jersey Worker
and Community
Right-to-know Act** Ethyl alcohol (CAS 64-17-5)
Methyl alcohol (CAS 67-56-1)
2-Butanone (CAS 78-93-3)
2-Heptanone (CAS 110-43-0)

**US Pennsylvania RTK-
Hazardous Substance** Ethyl alcohol (CAS 64-17-5)
Methyl alcohol (CAS 67-56-1)
2-Butanone (CAS 78-93-3)
2-Heptanone (CAS 110-43-0)

US Rhode Island RTK Ethyl alcohol (CAS 64-17-5)
Methyl alcohol (CAS 67-56-1)
2-Butanone (CAS 78-93-3)

**US California
Proposition 65-
Carcinogens &
Reproductive
Toxicity (CRT):
Listed substance** Methyl alcohol (CAS 67-56-1)

16. Other Information

Issue date 2-Nov-2017

Revision date 2-Nov-2017

Version # 02



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Disclaimer

The information contained herein is, to the best of our knowledge and belief, accurate. Since the condition of handling and use is beyond our control, we assume no liability for loss or injury resulting from the use of this product or the information herein. All chemicals may present unknown health hazards and should be used with caution. Safe use of this product is the responsibility of the user.