



Date of Issue: 05/13/2020

Latest Revision: 05/28/2020

Revision #: 1

This document complies with the US OSHA Hazard Communication Standard (29 CFR 1910.1200), Canada WHMIS 2015 which includes the amended Hazardous Products Act (HPA) and the Hazardous Products Regulation (HPR), and Mexico's NMX-R-019-SC-2011.

## 1. Identification of the Substance/Preparation and the Company Undertaking

### GHS Product Identifier

|                              |                                   |
|------------------------------|-----------------------------------|
| Product Form/Description:    | <b>Marking Pens</b>               |
| Product Name:                | <b>MM-06, MM-07, MM-08, MM-09</b> |
| Synonyms:                    | <b>Mighty Marker® High Purity</b> |
| Color:                       | Black Ink XV-12149                |
| Batch #:                     | F-3555                            |
| Report Date:                 | 05/24/2019                        |
| Expiration Date / Shelf Life | 05/02/2023                        |
| Report #:                    | 105490                            |

### Other Means of Identification

Part Number:

|        |       |
|--------|-------|
| Colors | Black |
| MM-06  | 00106 |
| MM-07  | 00107 |
| MM-08  | 00108 |
| MM-09  | 00109 |

Formula Code:

|          |
|----------|
| Black    |
| XV-12149 |

### Recommended use of the chemical and restrictions on use

|                       |                          |
|-----------------------|--------------------------|
| Recommended Use       | Marking                  |
| Uses Advised Against: | No information available |

### Supplier's Details

|                  |   |
|------------------|---|
| Supplier Address | Arro-Mark Company LLC.<br>158 West Forest Ave<br>Englewood, New Jersey, 07631 USA<br>Phone: (201) 567-4112<br>Email: Sales@arromark.com |
|------------------|---|

### Emergency Telephone Number

|          |                 |                            |
|----------|-----------------|----------------------------|
| Chemtrec | US 800-424-9300 | International 703-527-3887 |
|----------|-----------------|----------------------------|

## 2. HAZARD IDENTIFICATION

### Classification

This chemical is considered hazardous according to the OSHA Hazard Communications Standard 2012 (29 CFR 1910.1200):

|  |    |
|--|----|
| Flammable Liquid Category                  | 3  |
| Skin Corrosion/Irritation Category         | 2  |
| Serious eye damage/Eye Irritation Category | 2A |
| Acute Toxicity Inhalation Category         | 4  |
| Acute Toxicity Skin Category               | 4  |



|                           |                             |               |
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|  |   |
|--|---|
| Aspiration Hazard Category   | 1 |
| Carcinogenicity Inhalation Category  | 2 |
| Specific target Organ Toxicity (single Exposure) respiratory tract irritation Category | 3 |
| Specific target Organ Toxicity (repeated Exposure) Inhalation Category                 | 2 |

**GHS Label Elements, including precautionary statements**



Signal Word: Danger

|                 |                       |
|-----------------|-----------------------|
| Appearance:     | Opaque, varies        |
| Physical state: | Thin viscosity liquid |
| Odor:           | Aromatic Odor         |

**Hazard Statements:**

| Code | Statement  |
|------|--|
| H315 | Causes skin irritation. Causes serious eye irritation. |
| H335 | May cause respiratory irritation.                      |
| H332 | Harmful if inhaled.                                    |
| H312 | Harmful in contact with skin.                          |
| H304 | May be fatal if swallowed and enters airways.          |
| H226 | Flammable liquid and vapor.                            |

**Precautionary Statements:**

| Prevention   | Response  | Storage   | Disposal   |
|--|---|---|--|
| <p>Do not handle until all safety precautions have been read and understood.</p> <p>Obtain special instructions before use.</p> <p>Keep container tightly closed Use only in a well ventilated area.</p> <p>Do not breathe dust/vapors/fumes</p> <p>Wash face and hands and any exposed skin thoroughly after handling.</p> <p>Wear protective gloves/clothing/eye protection/face protection.</p> <p>Keep away from heat/sparks/flame hot surfaces – no smoking.</p> <p>Use explosion proof electrical/ventilating/lighting equipment</p> <p>Ground/bond container and receiving equipment.</p> <p>Use non-sparking tools.</p> <p>Take precautionary measures against static discharge.</p> | <p>If exposed or concerned: get medical attention/advice.</p> <p>If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do.</p> <p>Continue rinsing. If eye irritation persists: Get medical advice/attention.</p> <p>If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention.</p> <p>If inhaled: Remove person to fresh air and keep comfortable for breathing.</p> <p>Call a poison center/doctor if you feel unwell.</p> <p>If swallowed: Immediately call a poison center/doctor. Do not induce vomiting. In case of fire: Use CO2, dry chemical, foam or water spray to extinguish.</p> | <p>Store in a well-ventilated place. Keep cool.</p> <p>Store locked up.</p> <p>Keep container tightly closed.</p> | <p>Dispose of contents/container in approved waste disposal plant.</p> |

**General Advice**

|                          |   |
|--------------------------|---|
| If exposed or concerned: | Get medical attention/advice                                    |
| ACUTE HAZARD:            | At high concentration, dizziness and unconsciousness may occur. |



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CAUTION: Contains xylene. Harmful or fatal if swallowed. Avoid inhalation. Direct contact may cause skin or eye irritation.

**KEEP OUT OF REACH OF CHILDREN.**

|  |   |
|--|---|
| Fire                                   | Use CO2, dry chemical, foam, or water spray |
| Spills and Leaks                       | Contain and collect spillage                |
| Hazard not Otherwise Classified (HNOC) | Not applicable                              |

**3. COMPOSITION / INFORMATION ON INGREDIENTS****Hazardous substance(s) or Complex Substance(s) required for disclosure**

| <u>Chemical Name</u> | <u>CAS -No</u> | <u>Weight %</u> | <u>Trade Secret</u> |
|----------------------|----------------|-----------------|---------------------|
| l-methoxy-2-propanol | 107-98-2       | 35-40           | *                   |
| N-Methyl Pyrrolidone | 872-50-4       | 1-5             | *                   |
| Diacetone Alcohol    | 123-42-2       | 30-40           | *                   |
| Solvent Black 7      | 8005-02-5      | 10-15           | *                   |

\* The exact percentage (concentration) of composition has been withheld as a trade secret.

**4. FIRST AID MEASURES****Description of necessary first-aid measures**

|                             |   |
|-----------------------------|---|
| General Advice              | In case of doubt, or when symptoms persist, seek medical attention.   |
| Eye Contact                 | Immediately flush eyes with plenty of water for at least fifteen (15) minutes.<br>Get medical attention immediately.  |
| Skin Contact                | Flush skin with plenty of water. Remove contaminated clothing.<br>Wash skin thoroughly with soap and water or use a proprietary skin cleanser.  |
| Inhalation:                 | Remove to fresh air, keep patient warm and at rest.<br>If breathing is irregular seek medical advice.<br>If not breathing, give artificial respiration.<br>If breathing is difficult, give oxygen.<br>Seek medical attention immediately. |
| Ingestion:                  | Seek medical attention immediately.<br>Do not induce vomiting.<br>Never give anything by mouth to an unconscious person.  |
| Protection of First Aiders: | Use personal protection equipment.  |

**Most important symptoms/effects, acute and delayed**

|                                 |                          |
|---------------------------------|--------------------------|
| Most important symptoms/effects | No information available |
|---------------------------------|--------------------------|

**Indication of immediate medical attention and special treatment needed, if necessary**

|                   |                       |
|-------------------|-----------------------|
| Note to physician | Treat symptomatically |
|-------------------|-----------------------|

**5. FIRE-FIGHTING MEASURES****Suitable Extinguishing Media**

Dry chemical, carbon dioxide, and regular foam. For large fires, use foam or flood with fine water spray

**Unsuitable Extinguishing media**

No information available

**Specific Hazards arising from the chemical**

|              |                                  |
|--------------|----------------------------------|
| Flash Point: | FLASH POINT: 89°F (TCC) ASTM D56 |
|--------------|----------------------------------|



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|                                    |  |
|------------------------------------|--|
| Flammability Limits (% by volume): | FLAMMABLE LIMITS: LEL 2.1 UEL 13.7 Note: Approximate |
| Unusual Fire Explosion Hazards:    | none   |

**Protective Equipment and Precautions for Firefighters**

Wear appropriate self-contained breathing apparatus MSHA/NIOSH (approved or equivalent) and full protective gear. Cool closed containers exposed to fire with water spray. Avoid inhalation of material or combustion by-products; stay upwind.

**6. ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures**

|                            |  |
|----------------------------|--|
| Personal Precautions:      | Avoid breathing vapors. Evacuate personnel to safe areas. Ensure adequate ventilation. |
| Environmental Precautions: | Avoid release into the environment. Do not allow entrance to drains or water-courses.  |

**Methods and materials for containment and cleaning up**

|                          |   |
|--------------------------|---|
| Methods for Containment: | Prevent further leakage or spillage if safe to do so.   |
| Methods for Cleaning Up  | Contain the spillage with non-combustible absorbent materials such as sand, earth, vermiculite, and diatomaceous earth. This will soak up the product. Place in a suitable container for disposal in accordance with the waste regulations. |

**7. HANDLING AND STORAGE****Precautions for safe handling**

|          |   |
|----------|---|
| Handling | Avoid skin and eye contact. Avoid the inhalation of vapor and mist. |
|----------|---|

**Conditions for safe storage, including any incompatibilities**

|                       |  |
|-----------------------|--|
| Storage               | Keep away from open flame, hot surfaces and sources of ignition.<br>Keep containers tightly closed. Observe label precautions.<br>Store between 5-25° C in a dry, well ventilated place.<br>Prevent unauthorized access. |
| Incompatible products | Strong oxidizing and reducing agents, strong alkalis and strong acids.   |

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Control Parameters**

Exposure Guidelines:

| Chemical Name        | ACGIH TLV                  | OSHA PEL | ACGIH     |
|----------------------|----------------------------|----------|-----------|
| 1-methoxy-2-propanol | TWA 50 ppm<br>STEL 100 ppm | -        | -         |
| N-Methyl pyrrolidone | -                          | -        | 100mg/l   |
| Diacetone Alcohol    | -                          | 50 ppm   | TWA 50ppm |

**Appropriate engineering controls**

|                      |  |
|----------------------|--|
| Engineering Measures | Showers, eyewash stations, ventilation systems |
|----------------------|--|

**Individual protection measures, such as personal protective equipment**

|                          |  |
|--------------------------|--|
| Eye/Face protection      | None under normal use conditions   |
| Skin and body Protection | None under normal use conditions   |
| Respiratory Protection   | None under normal use conditions.<br>If irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn                 |
| Hygiene Measures         | Use in a well-ventilated area.<br>When using do not eat, drink, or smoke.<br>Provide regular cleaning of equipment, work areas and clothing. |



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**9. PHYSICAL AND CHEMICAL PROPERTIES****Information on basic physical and chemical properties**

| Property                                       | Value  | Remarks/Method |
|--|--|----------------|
| Physical State:                                | Liquid   | None Known     |
| Appearance and Odor:                           | Opaque, thin viscosity liquid with alcohol odor. | None Known     |
| Odor Threshold:                                | No Data  | None Known     |
| Vapor Density (AIR = 1):                       | 2.1  | None Known     |
| Vapor Pressure (mm-Hg @ 70°F):                 | 20.8mm-Hg @ 70°F                                 | None Known     |
| Flash Point:                                   | No Data  | Tag closed cup |
| Specific Gravity (H2O=1) @70°F:                | <1@70°F  | None Known     |
| Flammability:                                  | No Data  | None Known     |
| Auto-ignition Temperature:                     | No Data  | None Known     |
| Decomposition Temperature:                     | No Data  | None Known     |
| Melting Point:                                 | No Data  | None Known     |
| Freezing Point:                                | No Data  | None Known     |
| Boiling Point:                                 | 207°F  | None Known     |
| Relative Evaporation Rate (Butyl Acetate = 1): | 1.3  | None Known     |
| Solubility in Water:                           | 70% – 80%  | None Known     |
| Log Pow:                                       | No Data  | None Known     |
| PH:  | No Data  | None Known     |
| Viscosity (Kinematic):                         | No Data  | None Known     |
| Viscosity (Dynamic):                           | No Data  | None Known     |
| Explosive limits                               | No Data  | None Known     |
| Explosive Properties                           | No Data  | None Known     |
| Oxidizing Properties                           | No Data  | None Known     |
| Volatile Organic Compound:                     | 77.5%, 776.35 g/L                                | None Known     |

**10. STABILITY AND REACTIVITY**

|                                    |   |
|------------------------------------|---|
| Reactivity                         | No data available   |
| Chemical Stability                 | Stable under normal storage and handling conditions                             |
| Possibility of Hazardous reactions | None under normal use   |
| Hazardous Polymerization           | Will not occur  |
| Conditions to Avoid                | Heat, open flame, sparks, and sources of ignition                               |
| Incompatible Materials             | Strong oxidizing and reducing agents, strong alkalis and strong acids           |
| Hazardous Decomposition products   | Carbon dioxide, carbon monoxide, smoke, soot and various oxidation by-products. |

**11. TOXICOLOGICAL INFORMATION**

|                     |  |
|---------------------|--|
| Product Information | There is no data available on the product itself |
|---------------------|--|

**12. ECOLOGICAL INFORMATION**

|             |  |
|-------------|--|
| Ecotoxicity | There is no data available on the product itself |
|-------------|--|

**13. DISPOSAL CONSIDERATIONS**

|                        |  |
|------------------------|--|
| Waste Disposal Methods | Dispose of in accordance with all applicable local, state and federal regulations. Do not allow to enter drains, Water courses, or the soil. |
| Contaminated Packaging | Do not re-use empty containers.  |

**14. TRANSPORT INFORMATION**

|  |                    |
|--|--------------------|
| Domestic Highway (Containers <1 Quart are ORM-D) Proper Shipping Name: | Consumer Commodity |
| Hazard Class/Subsidiary:   | ORM-D              |




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**Label Required:**


ORM-D

| <b>(Ground) DOT</b>        |  |
|----------------------------|--|
| UN number                  | UN 1263  |
| UN proper shipping name    | Paint related material   |
| Transport Hazard Class(es) | <br>3 |
| Packing Group              | III  |
| Environmental Hazards      | No.  |
| Additional Information     | Limited quantity: Yes.<br>Consumer Commodity: Yes (ORM-D Label Required)               |

| <b>(Ground) TDG</b>        |  |
|----------------------------|--|
| UN number                  | UN 1263  |
| UN proper shipping name    | Paint related material   |
| Transport Hazard Class(es) | <br>3   |
| Packing Group              | III  |
| Environmental Hazards      | No.  |
| Additional Information     | Consumer Commodity: Yes (ORM-D Label Required)<br>Explosive Limit and Limited Quantity Index: 5<br>Passenger Carrying Road or Rail Index: 60 |

| <b>(Ground) MEX</b>        |  |
|----------------------------|--|
| UN number                  | UN 1263  |
| UN proper shipping name    | Paint related material   |
| Transport Hazard Class(es) | <br>3 |
| Packing Group              | III  |
| Environmental Hazards      | No.  |
| Additional Information     | Consumer Commodity: Yes (ORM-D Label Required)<br>Special provisions: 223                |

| <b>(Road/Train) ADR/RID</b> |  |
|-----------------------------|--|
| UN number                   | UN 1263  |
| UN proper shipping name     | Paint related material   |
| Transport Hazard Class(es)  | <br>3   |
| Packing Group               | III  |
| Environmental Hazards       | No.  |
| Additional Information      | Hazard identification number: 30<br>Limited quantity: 5 L<br>Consumer Commodity: Yes (ORM-D Label Required)<br>Special provisions: 640E<br>Viscous Substance Exemption: This class 3 material can be considered non hazardous in packagings up to 450 L. Exempted according to 2.2.3.1.5 (Viscous substance exemption)<br>Tunnel code: (D/E) |

| <b>(Sea) IMDG/IMO</b>      |  |
|----------------------------|--|
| UN number                  | UN 1263  |
| UN proper shipping name    | Paint related material   |
| Transport Hazard Class(es) | <br>3 |
| Packing Group              | III  |




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|                        |   |
|------------------------|---|
| Environmental Hazards  | No.   |
| Additional Information | Emergency schedules (EmS): F-E, _S-E_<br>Special provisions: 223, 955<br>Viscous Substance Exemption: This class 3 material can be considered non hazardous in packagings up to 30 L. Exempted according to 2.3.2.5 (Viscous substance exemption) |

|                            |   |
|----------------------------|---|
|                            | <b>(Air) IATA</b>   |
| UN number                  | UN 1263   |
| UN proper shipping name    | Paint related material  |
| Transport Hazard Class(es) | <br>3  |
| Packing Group              | III   |
| Environmental Hazards      | No.   |
| Additional Information     | <b>Passenger Aircraft</b><br>Quantity limitation: 60 L<br>Packaging instructions: 355<br><b>Cargo Aircraft</b><br>Quantity limitation: 220 L<br>Packaging instructions: 366 |

|                               |  |
|-------------------------------|--|
| Special Precautions for User: | Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage. |
|-------------------------------|--|

## 15. REGULATORY INFORMATION

|                 |  |
|-----------------|--|
| TSCA INVENTORY: | The product on this SDS is not listed on the Toxic Substances Control Act Inventory.<br>All ingredients used to manufacture this product are listed on the TSCA Inventory. |
|-----------------|--|

### US Regulatory Rules:

Section 313 or Title III of SARA. This product contains a chemical, which is subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations Part 372.

|                      |
|----------------------|
| N-Methyl Pyrrolidone |
| 1-methoxy-2-propanol |

### Hazard categories

|                                   |     |
|-----------------------------------|-----|
| Acute Health Hazard               | YES |
| Chronic Health Hazard             | YES |
| Fire Hazard                       | YES |
| Sudden release of Pressure Hazard | NO  |
| Reactive Hazard                   | NO  |

### State Regulation

|                                  |  |
|----------------------------------|--|
| California Proposition 65        | N-Methyl Pyrrolidone Listed<br>1-methoxy-2-propanol Listed |
| Massachusetts Right to know List | None   |
| New Jersey Right to Know         | None   |
| Pennsylvania Right to Know       | None   |

## 16. OTHER INFORMATION

### HMIS CLASSIFICATION

|                  |  |
|------------------|--|
| Health Hazard:   | 1  |
| Flammability:    | 2  |
| Physical Hazard: | 0  |
| PPE              | Splash Goggles, Gloves, Apron,<br>Vapor Respirator |

Health Hazard: 1

Flamability: 2



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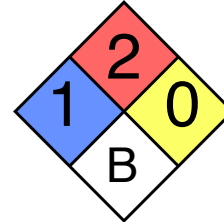
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|  |  |
|--|--|
|  |  |
|--|--|

|                        |
|------------------------|
| Physical Hazard: 0     |
| Personal Protection: B |

**NFPA CLASSIFICATION**

|                     |   |
|---------------------|---|
| Health Hazard       | 1 |
| Flammability        | 2 |
| Reactivity          | 0 |
| Personal Protection | B |



**End of Safety Data Sheet**