1. PRODUCT AND COMPANY INFORMATION

Product name : MISSION WATERCOLOR
Company : MIJELLO CO., LTD.
Address : #419, Palgok2-dong, Sangnok-gu, Ansan-city, Gyeonggi-do, 426-190,
Republic of Korea
Telephone : +82 31 415 8133
Fax : +82 31 415 8132
Web site : www.mijello.com
E-mail : mijello@naver.com

Recommended use of the chemical and restrictions on use
Recommended use : Watercolors for painting
Restrictions on use : Food

2. HAZARDS IDENTIFICATION

Globally Harmonized System of Classification and Labelling of Chemicals (GHS)
Physical hazard / Health hazard / Environment hazard : Not applicable

Label elements including precautionary statements
Symbol / Signal word / Hazard statements / Precautionary statements : Not applicable

NFPA Rating
Health : 1 Flammability : 0 Reactivity : 0 Water reactivity : 0

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS No.</th>
<th>EINECS No.</th>
<th>Conc. %</th>
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<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>231-791-2</td>
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<tr>
<td>Maltodextrin</td>
<td>9050-36-6</td>
<td>232-940-4</td>
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<td>Guar Gum</td>
<td>9000-30-0</td>
<td>232-536-8</td>
<td>5 ~ 10</td>
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<td>Arabic gum</td>
<td>9000-01-5</td>
<td>232-519-5</td>
<td>5 ~ 10</td>
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<td>Sorbitol</td>
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<td>200-061-5</td>
<td>5 ~ 10</td>
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<td>Honey</td>
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<td>5 ~ 10</td>
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<tr>
<td>Glycerin</td>
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<td>200-289-5</td>
<td>5 ~ 10</td>
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<td>Pigment Name</td>
<td>CAS Number</td>
<td>ESIS Number</td>
<td>Concentration</td>
</tr>
<tr>
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<td>Carboxymethylcellulose Sodium</td>
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<td>C.I. Pigment Red 179</td>
<td>5521-31-3</td>
<td>226-866-1</td>
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<td>Pigment Red 112</td>
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<td>C.I. Pigment Green 36</td>
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<td>Pigment Green 7</td>
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<td>215-524-7</td>
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<td>Pigment Red 254</td>
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<td>147-14-8</td>
<td>205-685-1</td>
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<tr>
<td>C.I. Pigment Orange 13</td>
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<td>222-530-3</td>
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<td>Pigment Violet 23</td>
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<td>Pigment Brown 25</td>
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<td>Pigment Yellow 17</td>
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<td>Pigment Yellow 65</td>
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<td>C.I. Pigment Blue 35</td>
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<td>Pigment Blue 35</td>
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<td>C.I. Pigment Blue 27</td>
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<td>C.I. Pigment Umber Brown 7</td>
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<td>235-784-5</td>
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<td>C.I. Pigment Red 202</td>
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<td>C.I. Pigment Blue 15:3</td>
<td>147-14-8</td>
<td>205-685-1</td>
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<td>C.I. Pigment Yellow 3</td>
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<td>C.I. Pigment Red 81</td>
<td>12224-98-5</td>
<td>235-424-7</td>
<td></td>
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</table>
4. FIRST AID MEASURES

In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

In case of skin contact
Wash off with soap and plenty of water.

If inhaled
If not breathing, give artificial respiration.

If swallowed
Never give anything by mouth to an unconscious person.
Rinse mouth with water.

Potential Health Effects
May be harmful if swallowed.

5. FIRE-FIGHTING MEASURES

Flammable properties
Flash point : No flash occurred under 110 °C (Rapid equilibrium method)
Flash point : No flash occurred under 250 °C (Cleveland open cup)
Autoignition temperature : No spontaneous combustion under 400 °C

Suitable extinguisher
Water spray, alcohol-resistant foam, dry chemical, carbon dioxide

Specific hazards arising from the chemical
No data available

Special protective equipment for fire-fighters
Wear self-contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Do not get into eyes, on skin, or on clothing.
Avoid breathing dust.

**Environmental precautions**

Don't dispose the product into drainages.

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

Pick up and arrange disposed materials without creating dust.
Keep in suitable, closed containers for disposal.

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**7. HANDLING AND STORAGE**

**Precautions for safe handling**

Prevent to spill.
Provide appropriate exhaust ventilation at places where dust is formed.

**Conditions for safe storage**

Stable under general condition.

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**8. EXPOSURE CONTROL/PERSONAL PROTECTION**

**Components with workplace control parameter**

**KOSHA :**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>TWA</th>
</tr>
</thead>
<tbody>
<tr>
<td>C.I. Pigment Black 7</td>
<td>1309-37-1</td>
<td>3.5 ㎎/㎥</td>
</tr>
<tr>
<td>C.I. Pigment White 6</td>
<td>13463-67-7</td>
<td>10 ㎎/㎥</td>
</tr>
<tr>
<td>Ferric oxide</td>
<td>1309-37-1</td>
<td>5 ㎎/㎥</td>
</tr>
</tbody>
</table>

**US ACGIH :**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>TWA</th>
</tr>
</thead>
<tbody>
<tr>
<td>C.I. Pigment Blue 15</td>
<td>147-14-8</td>
<td>1 ㎎/㎥, as Cu</td>
</tr>
<tr>
<td>C.I. Pigment Black 7</td>
<td>1309-37-1</td>
<td>3 ㎎/㎥, respirable fraction</td>
</tr>
<tr>
<td>Ferric oxide</td>
<td>1309-37-1</td>
<td>5 ㎎/㎥, respirable fraction</td>
</tr>
</tbody>
</table>

**Appropriate engineering control :** No data available

**Personal protective equipment**

- **Respiratory protection :** General dust mask
- **Hand protection :** General protective gloves
- **Eye protection :** General protective goggles
- **Skin and body protection :** General working clothes
9. PHYSICAL AND CHEMICAL PROPERTIES

**State**: Liquid at 20 °C

**Flash point**
- No flash occurred under 110 °C (Rapid equilibrium method)
- No flash occurred under 250 °C (Cleveland open cup)

**Autoignition temperature**: No spontaneous combustion under 400 °C

**pH**: 7.0 ~ 8.0 at 20 °C

**Boiling point (Initial)**: > 100 °C

**Viscosity**: > 20,000 mPa s (cP) at 20 °C

**Density**: 1.319 at 20 °C

**Water solubility**: Water soluble at 20 °C

**Explosive properties**
- No self-reaction hazard ※ UN TDG test & criteria – Test E3

**Freezing range (Initial)**: No data available

**Vapour pressure**: No data available

**Oxidizing properties**: No data available

**Decomposition temperature**: No data available

**Partition coefficient (n-octanol/water)**: No data available

**Evaporation rate**: No data available

**Lower explosion limit**: No data available

**Upper explosion limit**: No data available

10. STABILITY AND REACTIVITY

**Chemical stability**
- Stable under general condition.

**Conditions to avoid**: No data available

**Materials to avoid**
- Strong oxidizing agents

**Hazardous decomposition products**
- Carbon oxides

11. TOXICOLOGICAL INFORMATION

**Acute toxicity**
- **Oral rat LD50**: > 2,000 mg/kg ※ from US NLM / IUCLID
Skin rabbit LD50 : > 5,000 mg/kg
Inhalation rat LC50 : > 10 mg/L (dust, 4h)

Skin irritation * from IUCLID
May cause skin irritation. (Ferric oxide, Titanium dioxide)

Eye irritation * from IUCLID
May cause eye irritation. (Ferric oxide, Barium sulfate, Titanium dioxide, Silicon dioxide)

Respiratory sensitization : No data available
Skin sensitization : No data available

Carcinogenicity * from IARC
Suspected of causing cancer. (C.I. Pigment Black 7, C.I. Pigment White 6)

Reproductive toxicity : No data available

Specific target organ toxicity - single exposure (GHS) : No data available
Specific target organ toxicity - repeated exposure (GHS) : No data available
Aspiration hazard : No data available

12. ECOLOGICAL INFORMATION

Toxicity
Fish LC50 : > 100 mg/L (96 h) * from IUCLID
Crustacean EC50 : > 100 mg/L (48 h)
Algae EC50 : > 100 mg/L (96 h)

Persistence and degradability : No data available
Bioaccumulative potential : No data available
Mobility in soil : No data available
Other adverse effects : No data available

13. DISPOSAL CONSIDERATIONS

Disposal consideration
Observe all environmental regulations.

Disposal precaution
Avoid disposing to the environment.

14. TRANSPORT INFORMATION

UN TDG : Not dangerous goods
IMDG : Not dangerous goods
IATA : Not dangerous goods

Marine pollution : Not applicable

Special precaution

Fire EmS Guide (Recommendation) : F-A
Spillage EmS Guide (Recommendation) : Not dangerous goods

15. REGULATORY INFORMATION

Korea Industrial Safety and Health Act (GHS) : Not applicable
Korea Hazardous Materials Safety Control Act : Not hazardous material
Korea Toxic Chemicals Control Act : Not toxic chemical
Korea Persistent Organic Pollutants Control Act : Not applicable
US OSHA Hazards (GHS) : Not applicable

16. OTHER INFORMATION

Issued Date : 2012. 04. 03
Revision No. : 1
Revision Date : 2012. 11. 19

References

- GHS Classification :
  Korea MSDS Testing Lab Certificate (Report No. 2012-03-04-091), IUCLID, EC ESIS.
- Physical and chemical properties : Korea MSDS Testing Lab Certificate
- Transport information : Korea MSDS Testing Lab Certificate
- Toxic & ecological information : OECD SIDS, IUCLID, US NLM, IARC, EC ESIS, CCRIS

★ Hazards Testing and Classification

Korea MSDS Testing Laboratory

Address : # 130-7, Cheon-ri, Ihdong-myeon, Cheoin-gu, Yongin-city, Gyeonggi-do, Korea
Web site : www.msdskorea.com
Telephone : +82 31 337 3701 / 3702

This MSDS is composed in line with The Korea Occupational Safety and Health Act Article 41 to protect the health of the employees, and for documentation.
This MSDS is composed with reference to documents and criteria provided by KOSHA.

- End -