

### SECTION 1: Identification

#### 1.1. Identification

|              |                                  |
|--------------|----------------------------------|
| Product form | : Mixture                        |
| Trade name   | : Marking Dye for Tissue - Green |
| Product code | : 24110                          |
| Formula      | : no data                        |

#### 1.2. Recommended use and restrictions on use

|                 |  |
|-----------------|--|
| Recommended use | : Use as laboratory reagent, Manufacture of substances |
|-----------------|--|

#### 1.3. Supplier

##### Supplier

Polysciences  
400 Valley Road  
Warrington, PA 18976 - United States  
T +1 215 343 6484 - F +1 215 343 0214  
[info@polysciences.com](mailto:info@polysciences.com) - [www.polysciences.com](http://www.polysciences.com)

#### 1.4. Emergency telephone number

|                  |   |
|------------------|---|
| Emergency number | : 24-hour emergency phone number ChemTel 1-800-255-3924 |
|------------------|---|

### SECTION 2: Hazard(s) identification


#### 2.1. Classification of the substance or mixture

##### GHS US classification

|   |                        |
|---|------------------------|
| Acute toxicity (inhalation) Category 4        | Harmful if inhaled     |
| Skin corrosion/irritation Category 2          | Causes skin irritation |
| Serious eye damage/eye irritation Category 2B | Causes eye irritation  |

#### 2.2. GHS Label elements, including precautionary statements

##### GHS US labeling

|                                   |   |
|-----------------------------------|---|
| Hazard pictograms (GHS US)        | :    |
| Signal word (GHS US)              | : Warning   |
| Hazard statements (GHS US)        | : Causes skin irritation<br>Causes eye irritation<br>Harmful if inhaled   |
| Precautionary statements (GHS US) | : Avoid breathing dust/fume/gas/mist/vapors/spray.<br>Wash hands, forearms and face thoroughly after handling.<br>Use only outdoors or in a well-ventilated area.<br>Wear protective gloves/protective clothing/eye protection/face protection.<br>If on skin: Wash with plenty of water.<br>If inhaled: Remove person to fresh air and keep comfortable for breathing. |

#### 2.3. Other hazards which do not result in classification

No additional information available

#### 2.4. Unknown acute toxicity (GHS US)

Not applicable

### SECTION 3: Composition/Information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

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| Name                        | Product identifier  | %      | GHS US classification   |
|-----------------------------|---------------------|--------|---|
| Isopropyl Alcohol, 99.9%    | (CAS-No.) 67-63-0   | 1 – 10 | Flam. Liq. 3, H226<br>Skin Irrit. 2, H315<br>Eye Irrit. 2B, H320<br>STOT SE 3, H336   |
| Ammonium hydroxide          | (CAS-No.) 1336-21-6 | 0 – 5  | Acute Tox. 4 (Oral), H302<br>Skin Corr. 1B, H314<br>Eye Dam. 1, H318<br>STOT SE 3, H335<br>Aquatic Acute 1, H400  |
| Dimethylaminoethanol (DMAE) | (CAS-No.) 108-01-0  | 0 – 5  | Flam. Liq. 3, H226<br>Acute Tox. 4 (Oral), H302<br>Acute Tox. 4 (Dermal), H312<br>Acute Tox. 4 (Inhalation), H332<br>Skin Corr. 1B, H314<br>Eye Dam. 1, H318<br>STOT SE 3, H335   |
| Formaldehyde                | (CAS-No.) 50-00-0   | 0 – 5  | Acute Tox. 3 (Oral), H301<br>Acute Tox. 3 (Dermal), H311<br>Acute Tox. 3 (Inhalation), H331<br>Skin Corr. 1B, H314<br>Eye Dam. 1, H318<br>Skin Sens. 1, H317<br>Muta. 2, H341<br>Carc. 1A, H350<br>STOT SE 3, H336<br>Aquatic Acute 2, H401 |

Full text of hazard classes and H-statements : see section 16

### SECTION 4: First-aid measures

#### 4.1. Description of first aid measures

- First-aid measures general : Call a poison center/doctor/physician if you feel unwell.
- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor/physician if you feel unwell.
- First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.
- First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
- First-aid measures after ingestion : Call a poison center/doctor/physician if you feel unwell.

#### 4.2. Most important symptoms and effects (acute and delayed)

- Symptoms/effects after skin contact : Irritation.
- Symptoms/effects after eye contact : Mild eye irritation.

#### 4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

### SECTION 5: Fire-fighting measures

#### 5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

#### 5.2. Specific hazards arising from the chemical

- Hazardous decomposition products in case of fire : Toxic fumes may be released.

#### 5.3. Special protective equipment and precautions for fire-fighters

- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

- Emergency procedures : Ventilate spillage area. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes.

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### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material.  
Other information : Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes.  
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Wash contaminated clothing before reuse.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store at room temp. Store in a well-ventilated place. Keep cool.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

|   |
|---|
| <b>Marking Dye for Tissue - Green</b>         |
| No additional information available           |
| <b>Isopropyl Alcohol, 99.9% (67-63-0)</b>     |
| No additional information available           |
| <b>Ammonium hydroxide (1336-21-6)</b>         |
| No additional information available           |
| <b>Formaldehyde (50-00-0)</b>                 |
| No additional information available           |
| <b>Dimethylaminoethanol (DMAE) (108-01-0)</b> |
| No additional information available           |

### 8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.  
Environmental exposure controls : Avoid release to the environment.

### 8.3. Individual protection measures/Personal protective equipment

#### Hand protection:

Protective gloves

#### Eye protection:

Safety glasses

#### Skin and body protection:

Wear suitable protective clothing

#### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. [In case of inadequate ventilation] wear respiratory protection.

**Personal protective equipment symbol(s):**

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### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

|   |  |
|---|--|
| Physical state                                  | : Liquid   |
| Appearance                                      | : green slightly viscous liquid.   |
| Color   | : Mixture contains one or more component(s) which have the following colour(s):<br>Colorless   |
| Odor  | : There may be no odour warning properties, odour is subjective and inadequate to warn of overexposure.<br>Mixture contains one or more component(s) which have the following odour:<br>ammonia-like |
| Odor threshold                                  | : No data available  |
| pH  | : No data available  |
| Melting point                                   | : no data  |
| Freezing point                                  | : No data available  |
| Boiling point                                   | : no data  |
| Flash point                                     | : no data  |
| Relative evaporation rate (butyl acetate=1)     | : No data available  |
| Flammability (solid, gas)                       | : Not applicable.  |
| Vapor pressure                                  | : no data  |
| Relative vapor density at 20°C                  | : no data  |
| Relative density                                | : No data available  |
| Solubility                                      | : No data available  |
| Partition coefficient n-octanol/water (Log Pow) | : No data available  |
| Auto-ignition temperature                       | : No data available  |
| Decomposition temperature                       | : No data available  |
| Viscosity, kinematic                            | : No data available  |
| Viscosity, dynamic                              | : No data available  |
| Explosion limits                                | : No data available  |
| Explosive properties                            | : No data available  |
| Oxidizing properties                            | : No data available  |

#### 9.2. Other information

No additional information available

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

#### 10.2. Chemical stability

Stable under normal conditions.

#### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

#### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

#### 10.5. Incompatible materials

No additional information available

#### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified  
Acute toxicity (dermal) : Not classified  
Acute toxicity (inhalation) : Harmful if inhaled.

|                     |              |
|---------------------|--------------|
| ATE US (gases)      | 4500 ppmV/4h |
| ATE US (vapors)     | 11 mg/l/4h   |
| ATE US (dust, mist) | 1.5 mg/l/4h  |

|   |                  |
|---|------------------|
| <b>Isopropyl Alcohol, 99.9% (67-63-0)</b> |                  |
| LD50 oral rat                             | 6.48 ml/kg ml/kg |

|                                       |           |
|---------------------------------------|-----------|
| <b>Ammonium hydroxide (1336-21-6)</b> |           |
| LD50 oral rat                         | 350 mg/kg |

Skin corrosion/irritation : Causes skin irritation.  
Serious eye damage/irritation : Causes eye irritation.  
Respiratory or skin sensitization : Not classified  
Germ cell mutagenicity : Not classified  
Carcinogenicity : Not classified

|   |                      |
|---|----------------------|
| <b>Isopropyl Alcohol, 99.9% (67-63-0)</b> |                      |
| IARC group                                | 3 - Not classifiable |

|  |                            |
|--|----------------------------|
| <b>Formaldehyde (50-00-0)</b>          |                            |
| IARC group                             | 1 - Carcinogenic to humans |
| National Toxicity Program (NTP) Status | Known Human Carcinogens    |

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

|   |                                    |
|---|------------------------------------|
| <b>Isopropyl Alcohol, 99.9% (67-63-0)</b> |                                    |
| STOT-single exposure                      | May cause drowsiness or dizziness. |

|                                       |                                   |
|---------------------------------------|-----------------------------------|
| <b>Ammonium hydroxide (1336-21-6)</b> |                                   |
| STOT-single exposure                  | May cause respiratory irritation. |

|                               |                                    |
|-------------------------------|------------------------------------|
| <b>Formaldehyde (50-00-0)</b> |                                    |
| STOT-single exposure          | May cause drowsiness or dizziness. |

|   |                                   |
|---|-----------------------------------|
| <b>Dimethylaminoethanol (DMAE) (108-01-0)</b> |                                   |
| STOT-single exposure                          | May cause respiratory irritation. |

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified  
Viscosity, kinematic : No data available  
Symptoms/effects after skin contact : Irritation.  
Symptoms/effects after eye contact : Mild eye irritation.

### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

|                                       |   |
|---------------------------------------|---|
| <b>Ammonium hydroxide (1336-21-6)</b> |   |
| LC50 fish 1                           | 8.2 mg/l (Exposure time: 96 h - Species: Pimephales promelas) |
| EC50 Daphnia 1                        | 0.66 mg/l (Exposure time: 48 h - Species: water flea)         |
| EC50 Daphnia 2                        | 0.66 mg/l (Exposure time: 48 h - Species: Daphnia pulex)      |

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### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

No additional information available

### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

## SECTION 14: Transport information

### Department of Transportation (DOT)

In accordance with DOT

Not applicable

### Transportation of Dangerous Goods

Not applicable

### Transport by sea

Not applicable

### Air transport

Not applicable

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

#### Isopropyl Alcohol, 99.9% (67-63-0)

Listed on the United States TSCA (Toxic Substances Control Act) inventory  
Subject to reporting requirements of United States SARA Section 313

#### Ammonium hydroxide (1336-21-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

|           |         |
|-----------|---------|
| CERCLA RQ | 1000 lb |
|-----------|---------|

#### Formaldehyde (50-00-0)

Listed on the United States TSCA (Toxic Substances Control Act) inventory  
Subject to reporting requirements of United States SARA Section 313  
Listed on EPA Hazardous Air Pollutant (HAPS)

|           |        |
|-----------|--------|
| CERCLA RQ | 100 lb |
|-----------|--------|

|  |        |
|--|--------|
| RQ (Reportable quantity, section 304 of EPA's List of Lists) | 100 lb |
|--|--------|

|  |        |
|--|--------|
| SARA Section 302 Threshold Planning Quantity (TPQ) | 500 lb |
|--|--------|

#### Dimethylaminoethanol (DMAE) (108-01-0)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

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### 15.2. International regulations

#### CANADA

|   |
|---|
| <b>Isopropyl Alcohol, 99.9% (67-63-0)</b>             |
| Listed on the Canadian DSL (Domestic Substances List) |
| <b>Ammonium hydroxide (1336-21-6)</b>                 |
| Listed on the Canadian DSL (Domestic Substances List) |
| <b>Formaldehyde (50-00-0)</b>                         |
| Listed on the Canadian DSL (Domestic Substances List) |
| <b>Dimethylaminoethanol (DMAE) (108-01-0)</b>         |
| Listed on the Canadian DSL (Domestic Substances List) |

#### EU-Regulations

|  |
|--|
| <b>Ammonium hydroxide (1336-21-6)</b>  |
| Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances) |

#### National regulations

|  |
|--|
| <b>Ammonium hydroxide (1336-21-6)</b>  |
| Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)<br>Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)<br>Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory<br>Listed on the Japanese ISHL (Industrial Safety and Health Law)<br>Listed on KECL/KECI (Korean Existing Chemicals Inventory)<br>Listed on NZIoC (New Zealand Inventory of Chemicals)<br>Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)<br>Japanese Poisonous and Deleterious Substances Control Law<br>Listed on INSQ (Mexican National Inventory of Chemical Substances)<br>Listed on CICR (Turkish Inventory and Control of Chemicals)<br>Listed on the TCSI (Taiwan Chemical Substance Inventory) |
| <b>Formaldehyde (50-00-0)</b>  |
| Listed on IARC (International Agency for Research on Cancer)<br>Listed as carcinogen on NTP (National Toxicology Program)  |

### 15.3. US State regulations

| <b>Formaldehyde (50-00-0)</b>                         |   |   |   |                                  |                                     |
|---|---|---|---|----------------------------------|-------------------------------------|
| U.S. - California - Proposition 65 - Carcinogens List | U.S. - California - Proposition 65 - Developmental Toxicity | U.S. - California - Proposition 65 - Reproductive Toxicity - Female | U.S. - California - Proposition 65 - Reproductive Toxicity - Male | No significant risk level (NSRL) | Maximum allowable dose level (MADL) |
| Yes   | No  | No  | No  | 40 µg/day                        |                                     |

| Component                             | State or local regulations   |
|---------------------------------------|--|
| Isopropyl Alcohol, 99.9%(67-63-0)     | U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List  |
| Ammonium hydroxide(1336-21-6)         | U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List; U.S. - Pennsylvania - RTK (Right to Know) List |
| Dimethylaminoethanol (DMAE)(108-01-0) | U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List  |
| Formaldehyde(50-00-0)                 | U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List  |

## SECTION 16: Other information

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### Hazard Rating

- Health : 1 Slight Hazard - Irritation or minor reversible injury possible
- Flammability : 1 Slight Hazard - Materials that must be preheated before ignition will occur. Includes liquids, solids and semi solids having a flash point above 200 F. (Class IIIB)
- Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

SDS US (GHS HazCom 2012)

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