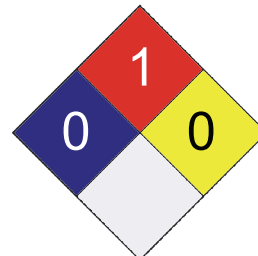


## 1. Product and Company Identification

|                     |                                                                                                                                                                                      |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Name</b> | <b>Molecular Fog Fluid</b>                                                                                                                                                           |
| <b>CAS #</b>        | Mixture                                                                                                                                                                              |
| <b>Product use</b>  | Theatrical Fog                                                                                                                                                                       |
| <b>Manufacturer</b> | Ultratec Special Effects Inc.<br>1960 Blue Heron Drive<br>London, ON N6H 5L9, Canada<br>Phone: 519-659-7972<br>Toll Free: 800-388-0617<br>Emergency Phone: 1-800-424-9300 (CHEMTREC) |

| LEGEND<br>HMIS/NFPA |   |
|---------------------|---|
| Severe              | 4 |
| Serious             | 3 |
| Moderate            | 2 |
| Slight              | 1 |
| Minimal             | 0 |

|                     |     |
|---------------------|-----|
| Health              | / 0 |
| Flammability        | 1   |
| Physical Hazard     | 0   |
| Personal Protection | A   |



## 2. Hazards Identification

|                                            |                                                                                                                                                                          |
|--------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Emergency overview</b>                  | Contact with liquid may cause eye and skin irritation.                                                                                                                   |
| <b>Potential short term health effects</b> |                                                                                                                                                                          |
| <b>Routes of exposure</b>                  | Eye, Skin contact, Inhalation, Ingestion.                                                                                                                                |
| <b>Eyes</b>                                | May cause irritation.                                                                                                                                                    |
| <b>Skin</b>                                | May cause irritation.                                                                                                                                                    |
| <b>Inhalation</b>                          | May cause respiratory tract irritation.                                                                                                                                  |
| <b>Ingestion</b>                           | May cause stomach distress, nausea or vomiting.                                                                                                                          |
| <b>Target organs</b>                       | Eyes. Skin.                                                                                                                                                              |
| <b>Chronic effects</b>                     | Prolonged or repeated exposure can cause drying, defatting and dermatitis.                                                                                               |
| <b>Signs and symptoms</b>                  | Symptoms may include redness, edema, drying, defatting and cracking of the skin.<br>Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. |

## 3. Composition / Information on Ingredients

| Ingredient(s)        | CAS #     |
|----------------------|-----------|
| Water                | 7732-18-5 |
| 1,2-Propylene glycol | 57-55-6   |

## 4. First Aid Measures

|                             |                                                                                                                                                                                                                                                    |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>First aid procedures</b> |                                                                                                                                                                                                                                                    |
| <b>Eye contact</b>          | Immediately flush with cool water. Remove contact lenses, if applicable, and continue flushing for 15 minutes. Obtain medical attention if irritation develops or persists.                                                                        |
| <b>Skin contact</b>         | Flush with cool water. Wash with soap and water. Obtain medical attention if irritation develops or persists.                                                                                                                                      |
| <b>Inhalation</b>           | If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.                                                                                                                                                       |
| <b>Ingestion</b>            | Do not induce vomiting. Rinse mouth with water, then drink one or two glasses of water. Obtain medical attention. Never give anything by mouth if victim is unconscious, or is convulsing.                                                         |
| <b>General advice</b>       | If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. |

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## 5. Fire Fighting Measures

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|                                                   |                                                                                                 |
|---------------------------------------------------|-------------------------------------------------------------------------------------------------|
| <b>Flammable properties</b>                       | Not flammable by WHMIS/OSHA criteria.                                                           |
| <b>Extinguishing media</b>                        |                                                                                                 |
| <b>Suitable extinguishing media</b>               | Carbon dioxide. Alcohol foam. Dry chemical. Water Fog.                                          |
| <b>Unsuitable extinguishing media</b>             | Not available                                                                                   |
| <b>Protection of firefighters</b>                 |                                                                                                 |
| <b>Specific hazards arising from the chemical</b> | Not available                                                                                   |
| <b>Protective equipment for firefighters</b>      | Firefighters should wear full protective clothing including self contained breathing apparatus. |
| <b>Hazardous combustion products</b>              | May include and are not limited to: Oxides of carbon.                                           |
| <b>Explosion data</b>                             |                                                                                                 |
| <b>Sensitivity to mechanical impact</b>           | Not available                                                                                   |
| <b>Sensitivity to static discharge</b>            | Not available                                                                                   |

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## 6. Accidental Release Measures

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|                                |                                                                                                                                                                                                                                                                                          |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Personal precautions</b>    | Keep unnecessary personnel away. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.                                                                                                                                                     |
| <b>Methods for containment</b> | Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas.                                                                                                                                                                              |
| <b>Methods for cleaning up</b> | Before attempting clean up, refer to hazard data given above. Small spills may be absorbed with non-reactive absorbent and placed in suitable, covered, labelled containers. Prevent large spills from entering sewers or waterways. Contact emergency services and supplier for advice. |

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## 7. Handling and Storage

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|                 |                                                                                              |
|-----------------|----------------------------------------------------------------------------------------------|
| <b>Handling</b> | Use good industrial hygiene practices in handling this material.                             |
| <b>Storage</b>  | Keep out of reach of children. Store in a closed container away from incompatible materials. |

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## 8. Exposure Controls / Personal Protection

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| <b>Exposure limits</b>                |                                                                                                                                                                             |
|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Ingredient(s)</b>                  | <b>Exposure Limits</b>                                                                                                                                                      |
| 1,2-Propylene glycol                  | <b>ACGIH-TLV</b><br>Not established<br><b>OSHA-PEL</b><br>Not established                                                                                                   |
| Water                                 | <b>ACGIH-TLV</b><br>Not established<br><b>OSHA-PEL</b><br>Not established                                                                                                   |
| <b>Engineering controls</b>           | General ventilation normally adequate.                                                                                                                                      |
| <b>Personal protective equipment</b>  |                                                                                                                                                                             |
| <b>Eye / face protection</b>          | Safety glasses recommended.                                                                                                                                                 |
| <b>Hand protection</b>                | If there is constant skin contact, rubber gloves are recommended.                                                                                                           |
| <b>Skin and body protection</b>       | As required by employer code.                                                                                                                                               |
| <b>Respiratory protection</b>         | Not normally required if good ventilation is maintained.                                                                                                                    |
| <b>General hygiene considerations</b> | Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. Wash hands before breaks and immediately after handling the product. |

## 9. Physical & Chemical Properties

|                                                |                                       |
|------------------------------------------------|---------------------------------------|
| Appearance                                     | Clear.                                |
| Color                                          | Colorless                             |
| Form                                           | Liquid                                |
| Odor                                           | no odour                              |
| Odor threshold                                 | Not available                         |
| Physical state                                 | Liquid                                |
| pH                                             | Neutral                               |
| Melting point                                  | Not available                         |
| Freezing point                                 | Not available                         |
| Boiling point                                  | Not available                         |
| Flash point                                    | > 103 °C (> 217.40 °F) Tag Closed Cup |
| Evaporation rate                               | Not available                         |
| Flammability limits in air, lower, % by volume | Not available                         |
| Flammability limits in air, upper, % by volume | Not available                         |
| Vapor pressure                                 | Not available                         |
| Vapor density                                  | > 1 (Air = 1)                         |
| Specific gravity                               | 1.04 (H2O = 1)                        |
| Octanol/water coefficient                      | Not available                         |
| Solubility (H2O)                               | Complete                              |
| Auto-ignition temperature                      | Not available                         |
| Viscosity                                      | Not available                         |
| Percent volatile                               | Not available                         |

## 10. Chemical Stability & Reactivity Information

|                                    |                                                                                    |
|------------------------------------|------------------------------------------------------------------------------------|
| Chemical stability                 | Stable.                                                                            |
| Conditions to avoid                | Do not mix with other chemicals.                                                   |
| Incompatible materials             | Acids. Oxidizers.                                                                  |
| Hazardous decomposition products   | May include and are not limited to: Oxides of carbon when heated to decomposition. |
| Possibility of hazardous reactions | Hazardous polymerization does not occur.                                           |

## 11. Toxicological Information

### Component analysis - LC50

| Ingredient(s)        | LC50          |
|----------------------|---------------|
| 1,2-Propylene glycol | Not available |
| Water                | Not available |

### Component analysis - Oral LD50

| Ingredient(s)        | LD50                                |
|----------------------|-------------------------------------|
| 1,2-Propylene glycol | 14800 mg/kg rabbit; 20000 mg/kg rat |
| Water                | 14500 mg/kg rat                     |

### Effects of acute exposure

|                 |                                                 |
|-----------------|-------------------------------------------------|
| Eye             | May cause irritation.                           |
| Skin            | May cause irritation.                           |
| Inhalation      | May cause respiratory tract irritation.         |
| Ingestion       | May cause stomach distress, nausea or vomiting. |
| Sensitization   | Non-hazardous by WHMIS/OSHA criteria.           |
| Chronic effects | Non-hazardous by WHMIS/OSHA criteria.           |
| Carcinogenicity | Non-hazardous by WHMIS/OSHA criteria.           |

|                             |                                       |
|-----------------------------|---------------------------------------|
| <b>Mutagenicity</b>         | Non-hazardous by WHMIS/OSHA criteria. |
| <b>Reproductive effects</b> | Non-hazardous by WHMIS/OSHA criteria. |
| <b>Teratogenicity</b>       | Non-hazardous by WHMIS/OSHA criteria. |

## 12. Ecological Information

**Ecotoxicity** Components of this product have been identified as having potential environmental concerns.

### Ecotoxicity - Freshwater Algae Data

1,2-Propylene glycol 57-55-6 96 Hr EC50 Selenastrum capricornutum: 19000 mg/L

### Ecotoxicity - Freshwater Fish Species Data

1,2-Propylene glycol 57-55-6 96 Hr LC50 Oncorhynchus mykiss: 51600 mg/L [static]; 96 Hr LC50 Pimephales promelas: 51400 mg/L [static]

### Ecotoxicity - Microtox Data

1,2-Propylene glycol 57-55-6 30 Min EC50 Photobacterium phosphoreum: 710 mg/L

### Ecotoxicity - Water Flea Data

1,2-Propylene glycol 57-55-6 48 Hr EC50 water flea: >10000 mg/L

|                                        |               |
|----------------------------------------|---------------|
| <b>Environmental effects</b>           | Not available |
| <b>Aquatic toxicity</b>                | Not available |
| <b>Persistence / degradability</b>     | Not available |
| <b>Bioaccumulation / accumulation</b>  | Not available |
| <b>Partition coefficient</b>           | Not available |
| <b>Mobility in environmental media</b> | Not available |
| <b>Chemical fate information</b>       | Not available |

## 13. Disposal Considerations

|                                              |                                                                                        |
|----------------------------------------------|----------------------------------------------------------------------------------------|
| <b>Waste codes</b>                           | Not available                                                                          |
| <b>Disposal instructions</b>                 | Review federal, state/provincial, and local government requirements prior to disposal. |
| <b>Waste from residues / unused products</b> | Not available                                                                          |
| <b>Contaminated packaging</b>                | Not available                                                                          |

## 14. Transport Information

### Department of Transportation (DOT)

Not regulated as dangerous goods.

### Transportation of Dangerous Goods (TDG)

Not regulated as dangerous goods.

## 15. Regulatory Information

**Canadian federal regulations** This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

### Canada - WHMIS - Ingredient Disclosure List

1,2-Propylene glycol 57-55-6 1 %

**US Federal regulations** This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

### Occupational Safety and Health Administration (OSHA)

**29 CFR 1910.1200 hazardous chemical** No

### CERCLA (Superfund) reportable quantity

None

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

**Hazard categories**  
Immediate Hazard - No  
Delayed Hazard - No  
Fire Hazard - No  
Pressure Hazard - No  
Reactivity Hazard - No

|                                                                                                                                       |                                                                                                                                      |                        |
|---------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|------------------------|
| Section 302 extremely hazardous substance                                                                                             | No                                                                                                                                   |                        |
| Section 311 hazardous chemical                                                                                                        | No                                                                                                                                   |                        |
| Clean Air Act (CAA)                                                                                                                   | Not available                                                                                                                        |                        |
| Clean Water Act (CWA)                                                                                                                 | Not available                                                                                                                        |                        |
| Safe Drinking Water Act (SDWA)                                                                                                        | Not available                                                                                                                        |                        |
| Drug Enforcement Agency (DEA)                                                                                                         | Not available                                                                                                                        |                        |
| Food and Drug Administration (FDA)                                                                                                    | Not available                                                                                                                        |                        |
| WHMIS status                                                                                                                          | Not Controlled                                                                                                                       |                        |
| State regulations                                                                                                                     | This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm. |                        |
| U.S. - Minnesota - Hazardous Substance List                                                                                           |                                                                                                                                      |                        |
| 1,2-Propylene glycol                                                                                                                  | 57-55-6 Present                                                                                                                      |                        |
| U.S. - Pennsylvania - RTK (Right to Know) List                                                                                        |                                                                                                                                      |                        |
| 1,2-Propylene glycol                                                                                                                  | 57-55-6 Present                                                                                                                      |                        |
| U.S. - Rhode Island - Hazardous Substance List                                                                                        |                                                                                                                                      |                        |
| 1,2-Propylene glycol                                                                                                                  | 57-55-6 Flammable                                                                                                                    |                        |
| Inventory name                                                                                                                        |                                                                                                                                      |                        |
| Country(s) or region                                                                                                                  | Inventory name                                                                                                                       | On inventory (yes/no)* |
| Canada                                                                                                                                | Domestic Substances List (DSL)                                                                                                       | Yes                    |
| Canada                                                                                                                                | Non-Domestic Substances List (NDSL)                                                                                                  | No                     |
| United States & Puerto Rico                                                                                                           | Toxic Substances Control Act (TSCA) Inventory                                                                                        | Yes                    |
| A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s) |                                                                                                                                      |                        |

## 16. Other Information

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Disclaimer</b>     | Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document. |
| <b>Issue date</b>     | 01-Apr-2012                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Effective date</b> | 01-Apr-2012                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Expiry date</b>    | 01-Apr-2015                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Prepared by</b>    | Dell Tech Laboratories Ltd. (519) 858-5021                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |