

# Material Safety Data Sheet

(Revision: 1.0)

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## Section 1: Product and Company Identification

|  |  |                              |
|--|--|------------------------------|
| Product Name<br><b>Fog Fluid</b>   | Trade Name<br><b>FLR-1 / FLR-2 / FLR-4 / FLR-5 /<br/>FLR-6 / FLR-10 / FLR-20 / FLR-200</b> | Product Type<br><b>Stage</b> |
| Manufacturer's Name<br>Antari Lighting & Effects Ltd.  |  |                              |
| Manufacturer's Address<br>No. 8, Lane 231, Sec 1, Nankan Road, Luzhu Township, Taoyuan County 338, Taiwan (R.O.C.) |  |                              |
| Telephone Number for Information<br>+866 33225829  | Emergency Telephone Number<br>Jason Ho<br>+866 33225829   jasonho@antari.com.tw            |                              |

## Section 2: Hazards Identification

|              | Hazard Ratings   |                 | Ratings Key<br>0 = minimal<br>1 = slight<br>2 = moderate<br>3 = serious<br>4 = severe |
|--------------|------------------|-----------------|---|
|              | <u>NPCA/HMIS</u> | <u>NFPA 704</u> |   |
| Health       | 1                | 1               |   |
| Flammability | 0                | 0               |   |
| Reactivity   | 0                | 0               |   |

## Section 3: Composition / Information on Ingredients

| Product Description: Compounding        |           |               |
|---|-----------|---------------|
| Note: This is not a dangerous substance | CAS No.   | Concentration |
| Ethykene Glycol                         | 107-21-1  | 55%           |
| Glycerin (mist)                         | 56-81-5   | 5%            |
| Acid Red 18                             | 2611-82-7 | 5.2 – 10 PPM  |
| Sodium Dehydroacetic                    | 4418-26-2 | 2.6 – 5 PPM   |
| Distilled Water                         | 7732-18-5 | 40%           |

#### Section 4: **First Aid Measures**

**Inhalation:** Supply fresh air; consult doctor in case of complaint.

**Skin contact:** Immediately wash with water and soap and rinse thoroughly. If skin irritation continues, consult a doctor.

**Eye contact:** Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

**Swallowing:** If symptoms persist, consult doctor.

#### Section 5: **Fire-Fighting Measures**

**Suitable extinguishing agents:** Use fire fighting measures that suit the environment.

Special hazards arising from the substance or mixture. No further relevant information available.

**Protective equipment:** Mouth respiratory protective device.

#### Section 6: **Accidental Release Measures**

Personal precautions, protective equipment and emergency procedures. Mount respiratory protective device.

**Environmental precautions:**

- Dilute with plenty of water.
- Do not allow to enter sewers / surface or ground water.

**Methods and material for containment and cleaning up:**

- Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

#### Section 7: **Handling & Storage**

**Handling:**

- Precautions for safe handling: Keep receptacles tightly sealed.
- Information about protection against explosions and fires: Keep ignition sources away.

**Storage:**

- Requirements to be met by storerooms and receptacles: Store in a cool location.
- Information about storage in one common storage facility: Store away from foodstuffs. Store away from flammable substances.
- Further information about storage conditions: Keep receptacle tightly sealed.

## Section 8: Exposure Controls / Personal Protection

| Components with limit values that require monitoring at the workplace |   |
|---|---|
| <b>56-81-5 Glycerol</b>   |   |
| PEL (USA)   | 15* 5** mg/m <sup>3</sup> – *total dust **respirable fraction |
| TLV (USA)   | 10* ppm – *mist   |
| EL (Canada)   | 10* 3** mg/m <sup>3</sup> – *mist; **mist, respirable         |
| EV (Canada)   | 10 mg/m <sup>3</sup>  |
| EL (Mexico)   | 10 mg/m <sup>3</sup> (i)                                      |
| <b>107-21-1 Ethylene Glycol</b>                                       |   |
| MAC (China)   | 20 mg/m <sup>3</sup>  |
| MAC (Russia)  | 5 mg/m <sup>3</sup>   |
| TLV (USA)   | ACGIH 100 mg/m <sup>3</sup>                                   |

Additional information: The lists that were valid during the creation were used as basis.

Based on the composition shown in section 3, the following measures are suggested for occupational safety measure

### PERSONAL PROTECTIVE EQUIPMENT

#### General protective and hygienic measures

The usual precautionary measures for handling chemicals should be followed:

- Breathing equipment: Suitable respiratory protective device recommended.
- Protection of hands: The glove material has to be impermeable and resistant to the product / the substance / the preparation. Due to missing tests no recommendation to the glove material can be given for the product / the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- Material of gloves: The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- Penetration time of glove material: The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
- Eye protection: Goggles recommended during refilling.

## Section 9: Physical and Chemical Properties

| General Information           |               |  |               |
|-------------------------------|---------------|--|---------------|
| Form:                         | Liquid        | Lower explosion limits:                  | Not available |
| Color:                        | Transparent   | Upper explosion limits:                  | Not available |
| Odor:                         | Odorless      | Vapor pressure:                          | Not available |
| Odor threshold:               | Not available | Density:                                 | Not available |
| pH value:                     | Not available | Relative density:                        | Not available |
| Melting point / range:        | Not available | Vapor density:                           | Not available |
| Freezing point:               | Not available | Evaporation density:                     | Not available |
| Boiling point / range:        | Not available | Solubility in / miscibility with water:  | Not available |
| Flash point:                  | Not available | Partition coefficient (n-octanol/water): | Not available |
| Flammability (solid/gaseous): | Not available | Dynamic viscosity:                       | Not available |
| Auto-ignition temperature:    | Not available | Kinematic viscosity:                     | Not available |
| Decomposition temperature:    | Not available |  |               |

## Section 10: Stability and Reactivity

Reactivity: No decomposition if used according to specifications.  
Chemical stability: Stable under recommended storage conditions.  
Possibility of hazardous reactions: No dangerous reactions known.  
Conditions to avoid: No further relevant information available.  
Incompatible materials: No further relevant information available.  
Hazardous decomposition products: No dangerous decomposition products known.

## Section 11: Toxicological Information

### ACUTE TOXICITY

| LD/LC50 values that are relevant for classification |      |                                       |
|---|------|---------------------------------------|
| 56-81-5 glycerol                                    |      |                                       |
| Oral  | LD50 | 4090 mg/kg (mouse); 12600 mg/kg (rat) |
| Dermal  | LD50 | > 10000 mg/kg (rabbit)                |
| 107-21-1 Ethylene glycol                            |      |                                       |
| Oral  | LD50 | 5500 mg/kg (rat)                      |
| 4418-26-2 Sodium dehydroacetic                      |      |                                       |
| Oral  | LD50 | 1175 mg/kg (rat)                      |

- Primary irritant effect on the skin: Irritating effect possible
- Primary irritant effect on the eye: Irritating effect possible
- Sensitization: Sensitization possible through skin contact.

- Additional toxicological information: The product is not subject to classification according to internally approved calculation methods for preparations: When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

#### CARCINOGENIC CATEGORIES

|  |                                   |
|--|-----------------------------------|
| IARC (International Agency for Research on Cancer) | None of the ingredients is listed |
| NTP (National Toxicology Program)                  | None of the ingredients is listed |

#### Section 12: Ecological Information

##### Toxicity

- Aquatic toxicity: No further relevant information available.
- Persistence and degradability: No further relevant information available.
- Bioaccumulative potential: No further relevant information available.
- Mobility in soil: No further relevant information available.

##### Additional ecological information

General notes: Water hazard class 1 (Self-assessment): slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

#### Section 13: Disposal Considerations

##### Waste treatment methods

Recommendation: Smaller quantities can be disposed of with household waste.

##### Uncleaned packagings

Recommendation: Disposal must be made according to official regulations.

Recommended cleansing agent: Water, if necessary with cleansing agents.

#### Section 14: Transport Information

|   |               |  |               |
|---|---------------|--|---------------|
| UN-Number<br><b>DOT, IMDG, IATA</b>                       | Not available | Packaging Group<br><b>DOT, IMDG, IATA</b>  | Not available |
| UN Proper Shipping Name<br><b>DOT, IMDG, IATA</b>         | Not available | <b>Marine Pollutant</b>                    | No            |
| Transport Hazard Class(es)<br><b>DOT, ADN, IMDG, IATA</b> | Not available | <b>Special Precautions for User</b>        | Not available |
| Class<br>–  | Not available | EMS Number<br><b>MARPOL73/78, IBC Code</b> | Not available |

## Section 15: Regulatory Information

|  |   |
|--|---|
| Safety, health and environmental regulations/legislation specific for the substance or mixture |   |
| Section 355 (extremely hazardous substances):  | None of the ingredients is listed                       |
| Section 313 (Specific toxic chemical listings):  | None of the ingredients or substance are listed         |
| TSCA (Toxic Substances Control Act):   | All ingredients are listed                              |
| Proposition 65   |   |
| Chemicals known to cause cancer:   | None of the ingredients is listed                       |
| Chemicals known to cause reproductive toxicity for females:                                    | None of the ingredients is listed                       |
| Chemicals known to cause reproductive toxicity for males:                                      | None of the ingredients is listed                       |
| Chemicals known to cause developmental toxicity:   | None of the ingredients is listed                       |
| Carcinogenicity categories   |   |
| EPA (Environmental Protection Agency):   | None of the ingredients is listed                       |
| TLV (Threshold Limit Value established by ACGIH):  | None of the ingredients is listed                       |
| NIOSH-Ca (National Institute for Occupational Safety and Health):                              | None of the ingredients is listed                       |
| OSHA-Ca (Occupational Safety & Health Administration):   | None of the ingredients is listed                       |
| Water hazard class:  | Class 1 (self-assessment): slightly hazardous for water |

## Section 16: Other Information

The contents and format of this MSDS/SDS are in accordance with 29 CFR 1910.1200(g).

### DISCLAIMER OF LIABILITY

The information in this MSDS/SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS/SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS/SDS information may not be applicable.

### Abbreviations and acronyms:

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

