

SAFETY DATA SHEET

Regulation (EC) No 1907/2006 (REACH), Annex II
(COMMISSION REGULATION (EU) No 2015/830)

Version 1

Product Name Fog Liquid FLR-1 / FLR-2 / FLR-4 / FLR-5 / FLR-6 / FLR-10 / FLR-20 /
FLR-200

Issue Date 10-MAY-2019

Revision date 10-MAY-2019

SECTION 1: Identification of the substance /mixture and of the company/undertaking

1.1. Product identifier

Product Name	Fog Liquid FLR-1 / FLR-2 / FLR-4 / FLR-5 / FLR-6 / FLR-10 / FLR-20 / FLR-200
Product Code	FLR-1 / FLR-2 / FLR-4 / FLR-5 / FLR-6 / FLR-10 / FLR-20 / FLR-200
REACH registration number	No information available

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended Use	Used for smoke generator on the stage.
Uses advised against	No information available

1.3. Details of the supplier of the safety data sheet

Supplier	ANTARI LIGHTING AND EFFECTS LTD
Address	8,Lane 231, Nankan, Rd, Sec.1,Luchu,Tao Yuan City, Taiwan
Postal Code	33859
Phone	03-322-5829#318
FAX	03-322-0433
E-mail	any@antari.com.tw

Importer
Address
Postal Code
Phone
FAX
E-mail

1.4. Emergency telephone number

03-322-5829#318

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute toxicity - Oral Category 4 - (H302)

2.2. Label elements

Symbols/Pictograms



Signal word	Warning
Hazard Statements	H302 - Harmful if swallowed
Precautionary Statements	P264 - Wash face, hands and any exposed skin thoroughly after handling P270 - Do not eat, drink or smoke when using this product P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell P330 - Rinse mouth P501 - Dispose of contents/ container to an approved waste disposal plant

EU Specific Hazard Statements None.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.1 Mixture

Chemical Name	EC No	CAS No	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Ethylene glycol	203-473-3	107-21-1	59	Acute Tox. 4 (H302)
Water	231-791-2	7732-18-5	40	Not classified
Glycerol	200-289-5	56-81-5	0.999	Not classified
Acid red 18	220-036-2	2611-82-7	0.001	Not classified

SECTION 4: First aid measures

4.1. Description of first aid measures

General advice

Remove contaminated clothing and shoes. If symptoms persist, call a physician.

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.

Skin Contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. If skin irritation persists, call a physician.

Eye contact

IF IN EYES: 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.

Ingestion

Rinse mouth. Get medical attention. Never give anything by mouth to an unconscious person.

Self-protection of the first aider

First aider: Pay attention to self-protection. Use personal protection recommended in Section 8.

4.2. Most important symptoms and effects, both acute and delayed

Harmful if swallowed.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

No information available.

5.2. Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

5.3. Advice for firefighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate personnel to safe areas. Ensure adequate ventilation, especially in confined areas. Remove all sources of ignition. Do not touch or walk through spilled material. Avoid contact with skin, eyes or clothing. Avoid breathing dust/fume/gas/mist/vapors/spray. Use personal protection recommended in Section 8.

6.2. Environmental precautions

Local authorities should be advised if significant spillages cannot be contained. Prevent entry into waterways, sewers, basements or confined areas.

6.3. Methods and material for containment and cleaning up

Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see Section 13).

6.4. Reference to other sections

- See Section 7 for more information
- See section 8 for more information
- See section 13 for more information

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation, especially in confined areas. Avoid contact with skin, eyes or clothing. Wash contaminated clothing before reuse. Take precautionary measures against static discharges. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Use personal protection recommended in Section 8.

7.2. Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat. Keep locked up and out of reach of children. Store in accordance with local regulations.

7.3. Specific end use(s)

Apart from the uses mentioned in SECTION 1.2 no other specific uses are stipulated.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Chemical Name	Australia	Austria	Belgium	Denmark	European Union
Ethylene glycol (CAS #: 107-21-1)	10 mg/m ³ 20 ppm 52 mg/m ³ 40 ppm STEL 104 mg/m ³ STEL Skin	Skin STEL 20 ppm STEL 52 mg/m ³ TWA: 10 ppm TWA: 26 mg/m ³	-	TWA: 10 ppm TWA: 26 mg/m ³ TWA: 10 mg/m ³ Skin	S* TWA 20 ppm TWA 52 mg/m ³ STEL 40 ppm STEL 104 mg/m ³
Glycerol (CAS #: 56-81-5)	10 mg/m ³	-	-	-	-

Chemical Name	Latvia	France	Finland	Germany	Italy

Ethylene glycol (CAS #: 107-21-1)	TWA: 20 ppm TWA: 52 mg/m ³ STEL: 40 ppm STEL: 104 mg/m ³ Skin	TWA: 20 ppm TWA: 52 mg/m ³ STEL: 40 ppm STEL: 104 mg/m ³	TWA: 20 ppm TWA: 50 mg/m ³ STEL: 40 ppm STEL: 100 mg/m ³ Skin	TWA: 10 ppm TWA: 26 mg/m ³ Ceiling / Peak: 20 ppm Ceiling / Peak: 52 mg/m ³ Skin	TWA: 20 ppm TWA: 52 mg/m ³ STEL: 40 ppm STEL: 104 mg/m ³ Skin
Glycerol (CAS #: 56-81-5)		TWA: 10 mg/m ³	TWA: 20 mg/m ³	TWA: 50 mg/m ³ Ceiling / Peak: 100 mg/m ³	-

Chemical Name	Poland	Portugal	Spain	Switzerland	Netherlands
Ethylene glycol (CAS #: 107-21-1)	STEL: 50 mg/m ³ TWA: 15 mg/m ³	Ceiling: 100 mg/m ³	S* STEL: 40 ppm STEL: 104 mg/m ³ TWA: 20 ppm TWA: 52 mg/m ³	Skin STEL: 20 ppm STEL: 52 mg/m ³ TWA: 10 ppm TWA: 26 mg/m ³	Skin STEL: 104 mg/m ³ TWA: 52 mg/m ³ TWA: 10 mg/m ³

Chemical Name	Norway	United Kingdom	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ethylene glycol (CAS #: 107-21-1)	TWA: 20 mg/m ³ TWA: 52 ppm TWA: 52 mg/m ³ Skin STEL: 52 mg/m ³ STEL: 20 ppm	STEL: 40 ppm STEL: 104 mg/m ³ STEL: 30 mg/m ³ TWA: 20 ppm TWA: 52 mg/m ³ TWA: 10 mg/m ³ Skin	Ceiling: 100 mg/m ³ aerosol only	(vacated) Ceiling: 50 ppm (vacated) Ceiling: 125 mg/m ³	-

Derived No Effect Level (DNEL)

No information available

Predicted No Effect Concentration (PNEC)

No information available

8.2. Exposure controls

Engineering Controls

Showers. Eyewash stations. Ventilation systems. Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).
 Hand Protection Wear protective gloves.
 Skin and body protection Suitable protective clothing.
 Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment.
 Thermal hazards None under normal processing

Environmental exposure controls

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance Transparent liquid
Color No information available
Odor No information available
Odor Threshold Not determined
pH 6.5-7.5
Melting point/freezing point Not determined
Boiling point / boiling range Not determined

Flash/Fire point	111/111
CAS: 107-21-1	111°C (closed cup)
CAS: 56-81-5	160°C (closed cup)
CAS: 7732-18-5	Not determined
Evaporation rate	Not determined
Flammability (solid, gas)	Not determined
Explosive limits	Not determined
Flammability Limit in Air	Not determined
Vapor Pressure	Not determined
Vapor density	Not determined
Relative density	Not determined
Partition coefficient (LogPow)	Not determined
Autoignition temperature	Not determined
Decomposition temperature	Not determined
Kinematic viscosity	Not determined
Dynamic viscosity	Not determined
Explosive properties	Not an explosive
Oxidizing properties	Not determined

9.2. Other information
No information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No information available.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

None under normal processing.

10.4. Conditions to avoid

Heat, flames and sparks.

10.5. Incompatible materials

Acids. Bases. Oxidizers.

10.6. Hazardous decomposition products

Decomposition products may include the following materials: Carbon monoxide. Carbon dioxide (CO₂).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Harmful if swallowed.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Ethylene glycol (CAS #: 107-21-1)	-	= 10600 mg/kg (Rat) = 9530 μL/kg (Rabbit)	-
Glycerol (CAS #: 56-81-5)	= 12600 mg/kg (Rat)	> 10 g/kg (Rabbit)	> 570 mg/m ³ (Rat) 1 h
Acid red 18 (CAS #: 2611-82-7)	> 8 g/kg (Rat)	-	-

Skin corrosion/irritation

Non-irritating to the skin.

Serious eye damage/eye irritation

No eye irritation.

Sensitization

No sensitization responses were observed.

Germ cell mutagenicity

No information available.

Carcinogenicity

Not classified

Reproductive toxicity

No information available.

STOT - single exposure

No information available.

STOT - repeated exposure

No information available.

Aspiration hazard

No information available.

SECTION 12: Ecological information

12.1. Toxicity

Chemical Name	Algae/aquatic plants EC50	Fish LC50	Crustacea EC50
Ethylene glycol (CAS #: 107-21-1)	6500 - 13000: 96 h Pseudokirchneriella subcapitata mg/L EC50	41000: 96 h Oncorhynchus mykiss mg/L LC50 27540: 96 h Lepomis macrochirus mg/L LC50 static 40761: 96 h Oncorhynchus mykiss mg/L LC50 static 40000 - 60000: 96 h Pimephales promelas mg/L LC50 static 16000: 96 h Poecilia reticulata mg/L LC50 static	46300: 48 h Daphnia magna mg/L EC50
Glycerol (CAS #: 56-81-5)	-	51 - 57: 96 h Oncorhynchus mykiss mL/L LC50 static	-

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential

Chemical Name	Partition coefficient (LogPow)
Ethylene glycol (CAS #: 107-21-1)	-1.93
Glycerol (CAS #: 56-81-5)	-1.76

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

PBT/vPvB assessment information is not available as chemical safety assessment not conducted.

12.6. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste from residues/unused products	Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated packaging	Disposal should be in accordance with applicable regional, national and local laws and regulations.

SECTION 14: Transport information

14.1. UN number	Not regulated
14.2. UN proper shipping name	Not regulated
14.3. Transport hazard class(es)	Not regulated
14.4. Packing group	Not regulated
14.5. Environmental hazards	Not regulated
14.6. Special precautions for user	No information available
14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code	Does not apply

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture European Union

Component	EINECS/ELINCS	SVHC candidates	RESTRICTIONS - REACH TITLE VIII
Ethylene glycol 107-21-1 (59)	X	-	-
Water 7732-18-5 (40)	X	-	-
Glycerol 56-81-5 (1)	X	-	-
Acid red 18 2611-82-7 (0.0005-0.0010)	X	-	-

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Take note of Directive 94/33/EC on the protection of young people at work

Take note of Directive 92/85/EC on the protection of pregnant and breastfeeding women at work

International Inventories

Component	TSCA	DSL/NDSL	ENCS	IECSC	KECL	PICCS	AICS
Ethylene glycol 107-21-1 (59)	X	X	X	X	X	X	X
Water 7732-18-5 (40)	X	X	Exempted	X	X	X	X
Glycerol 56-81-5 (1)	X	X	X	X	X	X	X
Acid red 18 2611-82-7 (0.0005-0.0010)	X	X	X	X	X	X	X

"-" Not Listed

"X" Listed

15.2. Chemical safety assessment

No information available.

SECTION 16: Other information

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Issue Date	10-MAY-2019
Revision date	10-MAY-2019
Revision Note	Not applicable

Key or legend to abbreviations and acronyms used in the safety data sheet

TWA - TWA (time-weighted average)

STEL - STEL (Short Term Exposure Limit)

Ceiling - Maximum limit value

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

Key literature references and sources for data

ECHA: <http://echa.europa.eu/>

IFA GESTIS: [http://gestis-en.itrust.de/nxt/gateway.dll?f=templates\\$fn=default.htm\\$vid=gestiseng:sdbeng](http://gestis-en.itrust.de/nxt/gateway.dll?f=templates$fn=default.htm$vid=gestiseng:sdbeng)

HSDB: <http://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm>

Full text of H-Statements referred to under section 3

H302 - Harmful if swallowed

Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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