

MATERIAL SAFETY DATA SHEET

Formula:Fog Liquid

Revision: 1.0
Issue Date: Aug. 26, 2013
Page: 1/7

Section 1. PRODUCT AND COMPANY IDENTIFICATION

Product Name : Fog Liquid
Trade Name : FLC-4 / FLC-5
Product Type : Stage

Details of the supplier of the material safety data sheet

Manufacturer/Supplier:

Antari Lighting & Effects Ltd.

No.8, Lane 231, Sec. 1, Nankan Rd., Luzhu Township, Taoyuan County 338, Taiwan (R.O.C)

Tel: +886 33225829

Further information obtainable from: Antari Lighting & Effects Ltd.

Emergency telephone number:

Jason Ho

Tel: +886 33225829

Email: jasonho@antari.com.tw

Section 2. HAZARDS IDENTIFICATION

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

Section 3. COMPOSITION / INFORMATION ON INGREDIENTS

Product description : Compounding

Component	CAS No.	Concentration
Ethykene Glycol	107-21-1	33.0%
Glycerin(mist)	56-81-5	2.0%
Sodium Dehydroacetic	4418-26-2	2.6-5 PPM
Distilled Water	7732-18-5	65.0%

Note(s): This is not a dangerous substance

MATERIAL SAFETY DATA SHEET

Formula:Fog Liquid

Revision: 1.0

Issue Date: Aug. 26, 2013

Page: 2/7

Section 4. FIRST AID MEASURES

After inhalation: Supply fresh air; consult doctor in case of complainte.

After skin contact: Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

After eye contact: Rinse opened eye for several minutes under running water.

If symptoms persist, consult a doctor.

After 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.

Protectove 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 AND 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.

MATERIAL SAFETY DATA SHEET

Formula:Fog Liquid

Revision: 1.0
Issue Date: Aug. 26, 2013
Page: 3/7

Section 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Additional information about design of technical systems: No further data; see item 7.

Components with limit values that require monitoring at the workplace:	
56-81-5 glycerol	
PEL (USA)	15* 5** mg/m ³ *total dust **respirable fraction
TLV (USA)	10* ppm *Mist
EL (Canada)	10* 3** mg/m ³ *mist; **mist, resirable
EV (Canada)	10 mg/m ³
LMPE (Mexico)	10 mg/m ³ (i)
107-21-1 Ethylene glycol	
MAC (China)	20 mg/m ³
MAC (Russia)	5 mg/m ³
TLV (USA)	ACGIH 100 mg/m ³

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.

MATERIAL SAFETY DATA SHEET

Formula: Fog Liquid

Revision: 1.0
Issue Date: Aug. 26, 2013
Page: 4/7

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

General Information

Appearance:

Form:	Liquid
Color:	Transparent
Odor:	Odorless

Odour threshold: Not available

pH-value: Not available

Change in condition

Melting point/Melting range: Not available

Freezing point: Not available

Boiling point/Boiling range: Not available

Flash point: Not available

Flammability (solid, gaseous): Not available

Auto-Ignition temperature: Not available

Decomposition temperature: Not available

Explosion limits:

Lower: Not available

Upper: Not available

Vapor pressure: Not available

Density: Not available

Relative density: Not available

Vapour density: Not available

Evaporation rate: Not available

Solubility in / Miscibility with

Water: Not available

Partition coefficient (n-octanol/water): Not available

Viscosity:

Dynamic: Not available

Kinematic: 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.

MATERIAL SAFETY DATA SHEET

Formula: Fog Liquid

Revision: 1.0
Issue Date: Aug. 26, 2013
Page: 5/7

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

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.

MATERIAL SAFETY DATA SHEET

Formula:Fog Liquid

Revision: 1.0
Issue Date: Aug. 26, 2013
Page: 6/7

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	
DOT, IMDG, IATA	Not applicable
UN proper shipping name	
DOT, IMDG, IATA	Not applicable
Transport hazard class(es)	
DOT, ADN, IMDG, IATA	
Class	Not applicable
Packing group	
DOT, IMDG, IATA	Not applicable
Environmental hazards:	
Marine pollutant:	No
Special precautions for user	Not applicable
EMS Number:	Not applicable
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable

Section 15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

Sara

Section 355 (extremely hazardous substances):

None of the ingredient is listed.

Section 313 (Specific toxic chemical listings):

Substance is not listed.

None of the ingredients is 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.

MATERIAL SAFETY DATA SHEET

Formula:Fog Liquid

Revision: 1.0

Issue Date: Aug. 26, 2013

Page: 7/7

Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

Cancerogenity 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.

National regulations:

Water hazard class: Water hazard 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 percent

LD50: Lethal dose, 50 percent

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