
1. IDENTIFICATION

Product Name	Aer-O-Foam® XLX-3 ^{C6} Fluoroprotein Foam Concentrate
Recommended use of the chemical and restrictions on use	
Identified uses	Firefighting Foam Concentrate
Restrictions on Use	See Section 15
Company Identification	National Foam 350 East Union Street West Chester, PA 19382
Customer Information Number	(610) 363-1400
Emergency Telephone Number	Infotrac at (800) 535-5053
Issue Date	November 2, 2016
Supersedes Date	January 22, 2016

Safety Data Sheet prepared in accordance with OSHA's Hazard Communication Standard (29 CFR 1910.1200) and the Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

2. HAZARD IDENTIFICATION

Hazard Classification

Eye Damage/Irritation - Category 2A
Specific Target Organ Toxicity (Repeated Exposure) - 2
Skin Sensitizer - Category 1

Label Elements

Hazard Symbols



Signal Word: Warning

Hazard Statements

Causes serious eye irritation.
May cause damage to organs (kidney) through prolonged or repeated exposure (oral).
May cause and allergic skin reaction.

Precautionary Statements**Prevention**

Wash hands thoroughly after handling.
Wear eye protection, face protection and protective gloves.
Avoid breathing mist, vapors or spray.
Contaminated work clothing must not be allowed out of the workplace.

Response

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.
If on skin: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
Get medical advice/attention if you feel unwell.

2. HAZARD IDENTIFICATION

Storage

None

Disposal

Dispose of contents/container in accordance with local regulation.

Other Hazards

None identified.

Specific Concentration Limits

The values listed below represent the percentages of ingredients of unknown toxicity.

Acute oral toxicity 20 - 30%

Acute dermal toxicity 20 - 30%

Acute inhalation toxicity 25 - 35%

Acute aquatic toxicity 25 - 35%

3. COMPOSITION/INFORMATION ON INGREDIENTS

This product is a mixture.

Component	CAS Number	Concentration
Water	7732-18-5	60 - 70%
Hexylene Glycol	107-41-5	1 - 5%
Ethylene Glycol	107-21-1	1 - 5%
Ferrous Sulfate	7720-78-7	<1%
Zinc Chloride	7646-85-7	<1%
Fluoroalkyl surfactants	Proprietary	<1%
Biocide	Proprietary	<1%

4. FIRST-AID MEASURES

Description of necessary first-aid measures**Eyes**

Immediately flood the eye with plenty of water for at least 15 minutes, holding the eye open. Obtain medical attention if soreness or redness persists.

Skin

Wash skin thoroughly with soap and water. Obtain medical attention if irritation persists.

Ingestion

Dilute by drinking large quantities of water and obtain medical attention.

Inhalation

Move victim to fresh air. Obtain medical attention immediately for any breathing difficulty.

Most important symptoms/effects, acute and delayed

Aside from the information found under Description of necessary first aid measures (above) and Indication of immediate medical attention and special treatment needed, no additional symptoms and effects are anticipated.

Indication of immediate medical attention and special treatment needed**Notes to Physicians**

Treat symptomatically.

5. FIRE - FIGHTING MEASURES

Suitable Extinguishing Media

This preparation is used as an extinguishing agent and therefore is not a problem when trying to control a fire. Use extinguishing agent appropriate to other materials involved.

Specific hazards arising from the chemical

None known

Special Protective Actions for Fire-Fighters

Wear full protective clothing and self-contained breathing apparatus as appropriate for specific fire conditions.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Wear appropriate protective clothing. Prevent skin and eye contact.

Environmental Precautions

Prevent foam concentrate or foam solution from entering ground water, surface water, or storm drains. Discharge and disposal of concentrate or foam solution should be made in accordance with federal, state, and local regulations.

Methods and materials for containment and cleaning up

Contain and absorb using appropriate inert material and transfer into suitable containers for recovery or disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Wear appropriate protective clothing. Prevent skin and eye contact.

Conditions for safe storage

Store in original containers between 35°F and 120°F (2°C and 49°C). Storage area should be: - cool - dry - well ventilated - under cover - out of direct sunlight

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits are listed below, if they exist.

Ethylene Glycol, Aerosol

ACGIH: Ceiling 100 mg/m³

Hexylene Glycol

ACGIH: Ceiling 25 ppm

Ferrous Sulfate as Iron Salts, Soluble, as Fe

ACGIH: TLV 1 mg/m³ 8h TWA

Zinc Chloride, fume

ACGIH: TLV 1 mg/m³ 8h TWA, 15-minute STEL is: 2 mg/m³.

OSHA: Z-1 PEL 1 mg/m³

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Appropriate engineering controls

Use with adequate ventilation. If this product is used in a pressurized system, there should be local procedures for the selection, training, inspection and maintenance of this equipment. When used in large volumes, use local exhaust ventilation.

Individual protection measures**Respiratory Protection**

Wear respiratory protection if there is a risk of exposure. A NIOSH approved full face respirator may be worn. The specific respirator selected must be based on the airborne concentration found in the workplace and must not exceed the working limits of the respirator.

Skin Protection

Rubber or PVC Gloves

Eye/Face Protection

Chemical goggles or safety glasses with side shields.

Body Protection

Normal work wear.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

	Physical State	Liquid
	Color	Dark brown
Odor		Organic
Odor Threshold		No data available
pH		7.3
Specific Gravity		1.12
Boiling Range/Point (°C/F)		No data available
Melting Point (°C/F)		No data available
Flash Point (°C/F)		>200°F
Vapor Pressure		No data available
Evaporation Rate (BuAc=1)		No data available
Solubility in Water		Soluble
Vapor Density (Air = 1)		Not applicable
VOC (%)		No data available
Partition coefficient (n-octanol/water)		No data available
Viscosity		No data available
Auto-ignition Temperature		Not applicable
Decomposition Temperature		No data available
Upper explosive limit		Not applicable
Lower explosive limit		Not applicable
Flammability (solid, gas)		Not applicable

10. STABILITY AND REACTIVITY

Reactivity

No data available.

Chemical Stability

Stable under normal conditions.

10. STABILITY AND REACTIVITY

Possibility of hazardous reactions

Hazardous polymerization will not occur.

Conditions to Avoid

Contact with incompatible materials

Incompatible Materials

Water reactive materials – burning metals – electronically energized equipment

Hazardous Decomposition Products

Oxides of carbon – hydrogen fluoride – aldehydes – ketones – organic acids – sulfur oxides – iron oxides

11. TOXICOLOGICAL INFORMATION

Acute ToxicityEthylene Glycol

Minimum lethal dose in humans: 1600 mg/kg body weight (estimate)

LD50 Dermal (rabbit) >3500 mg/kg

Specific Target Organ Toxicity (STOT) – single exposure

Available data indicates this product is not expected to cause target organ effects after a single exposure.

Specific Target Organ Toxicity (STOT) – repeat exposure

Ethylene Glycol: May cause damage to organs (kidney) through prolonged or repeated exposure (oral).

Serious Eye damage/Irritation

Hexylene Glycol: Causes serious eye irritation.

Ferrous Sulfate: Causes serious eye irritation.

Zinc Chloride: Causes severe skin burns and eye damage.

Skin Corrosion/Irritation

Ferrous Sulfate: Skin irritant in rabbit tests.

Zinc Chloride: Causes severe skin burns and eye damage. A 1 % w/v zinc chloride was found to be moderately irritating to guinea-pig skin, and severely irritating to mouse and rabbit skin.

Respiratory or Skin Sensitization

Biocide: Classified as skin sensitizer at $\geq 0.1\%$ (ECHA)

Carcinogenicity

Not considered carcinogenic by NTP, IARC, and OSHA.

Germ Cell Mutagenicity

Available data indicates this product is not expected to be mutagenic.

Reproductive Toxicity

Available data indicates this product is not expected to cause reproductive toxicity or birth defects.

Aspiration Hazard

Not an aspiration hazard.

12. ECOLOGICAL INFORMATION

EcotoxicityZinc Chloride:

LC50 Carp 0.4 -2.2 mg/l 96hr

EC50 Daphnia Magna 0.2 mg/l 48 hr

Aquatic Chronic – Category 1, Very toxic to aquatic life with long lasting effects. (ECHA classification.)

Mobility in soil

No relevant studies identified.

Persistence/Degradability

No relevant studies identified.

Bioaccumulative Potential

No relevant studies identified.

Other adverse effects

No relevant studies identified.

13. DISPOSAL CONSIDERATIONS

Disposal Methods

This product, as sold, is not a RCRA-listed waste or hazardous waste as characterized by 40 CFR 261. However, state and local requirements for waste disposal may be more restrictive or otherwise different from federal regulations. Therefore, applicable local and state regulatory agencies should be contacted regarding disposal of waste foam concentrate or foam/foam solution.

Concentrate

Prevent foam concentrate from entering ground water, surface water or storm drains. Small quantities of foam concentrate may be collected on absorbents which can then be disposed of. Disposal should be made in accordance with local, state and federal regulations. High temperature incineration is recommended.

Foam/Foam Solution

Prevent foam/foam solution from entering ground water, surface water or storm drains. Small quantities of foam solution may be collected on absorbents which can then be disposed of. Disposal should be made in accordance with local, state and federal regulations, high temperature incineration is recommended.

NOTE: Please consult National Foam for additional information regarding the disposal of foam concentrates and foam solutions.

14. TRANSPORT INFORMATION

Shipping Information**Shipping Description****National Motor Freight Code**Fire Extinguisher Charges or Compounds N.O.I., Class 70
69160 Sub 0

This information is not intended to convey all transportation classifications that may apply to this product. Classifications may vary by container volume and by regional regulations. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules when transporting this material.

15. REGULATORY INFORMATION

United States TSCA Inventory

All components of this product are in compliance or are exempt from inventory listing requirements of the US Toxic Substance Control Act (TSCA) Chemical Substance Inventory.

Canada DSL Inventory

All ingredients in this product have not been verified for listing on the Domestic Substance List (DSL) or the Non-Domestic Substance List (NDSL).

SARA Title III Sect. 311/312 Categorization

Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard

SARA Title III Sect. 313

This product contains the following chemicals that are listed in Section 313 at or above de minimis concentrations: Ethylene Glycol

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

Ethylene Glycol (107-21-1) 3% by weight maximum
Ferrous Sulfate (7720-78-7) 1% by weight maximum
Zinc Chloride (7646-85-7) 1% by weight maximum

16. OTHER INFORMATION

NFPA Ratings

NFPA Code for Health - 0
NFPA Code for Flammability - 0
NFPA Code for Reactivity - 0
NFPA Code for Special Hazards - None

Legend

ACGIH: American Conference of Governmental Industrial Hygienists
BOD₅: Biochemical Oxygen Demand (5 day)
CAS#: Chemical Abstracts Service Number
COD: Chemical Oxygen Demand
EC50: Effect Concentration 50%
IARC: International Agency for Research on Cancer
LC50: Lethal Concentration 50%
LD50: Lethal Dose 50%
N/A: Denotes no applicable information found or available
OSHA: Occupational Safety and Health Administration
PEL: Permissible Exposure Limit
RQ: Reportable Quantity
STEL: Short Term Exposure Limit
N/A: Denotes no applicable information found or available
OSHA: Occupational Safety and Health Administration
PEL: Permissible Exposure Limit
RQ: Reportable Quantity
STEL: Short Term Exposure Limit
TLV: Threshold Limit Value
TSCA: Toxic Substance Control Act

Revision Date: November 2, 2016
Replaces: January 22, 2016
Changes made: Changes to Section 6 and 13.

16. OTHER INFORMATION

Information Source and References

This SDS is prepared by Hazard Communication Specialists based on information provided by internal company references.

Prepared By: EnviroNet LLC.

Aer-O-Foam is a trademark of Angus International.

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