



MATERIAL SAFETY DATA SHEET #NMS110

Aer-O-Foam 3% Cold Foam

Protein Foam Liquid Concentrate

Section 1. CHEMICAL PRODUCT/COMPANY IDENTIFICATION

Material Identification

Product: Aer-O-Foam 3% Cold Foam, Fire Fighting Foam Concentrate

Synonyms: Protein Foam

CAS No: Mixture - No single CAS # applicable

Company Identification

Manufacturer:

National Foam, Inc.

150 Gordon Drive

P.O. Box 695

Exton, PA 19341-0695

Emergency Phone Number (Red Alert): (610) 363-1400 (U.S.A.)

Fax (610) 524-9073

www.nationalfoam.com

www.Kidde-Fire.com

Section 2. COMPOSITION / INFORMATION ON INGREDIENTS

Components	CAS Number
Water	7732-18-5
Protein Hydrolysate	69430-36-0
Ethylene Glycol; 1,2 Ethanediol	107-21-1
2-Ethoxyethanol; Ethylene Glycol Monoethyl Ether	110-80-5
Hexylene Glycol; 2 Methyl-2, 4 Pentanediol	107-41-5
Ferrous Sulfate	7720-78-7
2 Aminoethanol; Monoethanolamine	141-43-5

Section 3. HAZARDS IDENTIFICATION

Potential Health Effects

Inhalation

Vapors are minimal at room temperature. If product is heated or sprayed as an aerosol, airborne material may cause respiratory irritation.

Skin Contact

No significant signs of adverse health effects are expected to occur as a result of skin contact.

Eye Contact

No significant signs of adverse health effects are expected to occur as a result of eye contact.

Ingestion

Not a hazard in normal industrial use. Small amounts swallowed during normal handling operations are not likely to cause injury; swallowing large amounts may cause injury or irritation.

Additional Health Effects

Existing eye or skin sensitivity may be aggravated by exposure.

Carcinogenicity Information

No data available.

Section 4. FIRST AID MEASURES

Inhalation

No specific treatment is necessary since this material is not likely to be hazardous by inhalation. If exposed to excessive levels of airborne aerosol mists, remove to fresh air. Seek medical attention if effects occur.

Skin Contact

In case of skin contact, wash off in flowing water or shower. Launder clothing before reuse.

Eye Contact

In case of eye contact, flush eyes promptly with water for 15 minutes. Retract eyelids often to ensure thorough rinsing. Consult a physician if irritation persists.

Ingestion

Swallowing less than an ounce is not expected to cause significant harm. For larger amounts, do not induce vomiting. Give milk or water. Never give anything by mouth to an unconscious person. Seek medical attention.

Section 5. FIRE FIGHTING MEASURES

Flammable Properties

Flash Point – Not applicable

Fire and Explosion Hazards

Avoid contact with water reactive materials, burning metals and electrically energized equipment.

Extinguishing Media

Product is an extinguishing media. Use media appropriate for surrounding materials.

Special Fire Fighting Instructions

This product will produce foam when mixed with water.

Section 6. ACCIDENTAL RELEASE MEASURES

Safeguards (Personnel)

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (Personnel) sections before proceeding with clean-up. Use appropriate Personal Protective Equipment during clean-up.

Accidental Release Measures

Concentrate

Stop flow if possible. Use appropriate protective equipment during clean up. For small volume releases, collect spilled concentrate with absorbent material; place in approved container. For large volume releases, contain and collect for use where possible. Flush area with water until it no longer foams. Exercise caution, surfaces may be slippery. Prevent discharge of concentrate to waterways. Disposal should be made in accordance with federal, state and local regulations.

Foam/Foam Solution

See above. Flush with water. Prevent discharge of foam/foam solution to waterways. Do not discharge into biological sewer treatment systems without prior approval. Disposal should be made in accordance with federal, state and local regulations.

Section 7. HANDLING AND STORAGE

Handling (Personnel)

Avoid contact with eyes, skin or clothing. Avoid ingestion or inhalation. Rinse skin and eyes thoroughly in case of contact. Review HAZARDS and FIRST AID sections.

Storage

Recommended storage environment is between -20°F (-29°C) and 120°F (49°C). Store product in original shipping container or tanks designed for product storage.

Section 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls

Special ventilation is not required.

Personal Protective Equipment

Respiratory

Recommended exposure limits (OSHA-PEL and ACGIH-TLV) have not been determined for this material. The need for respiratory protection should be evaluated by a qualified health specialist.

Protective Clothing

Rubber or PVC gloves recommended.

Eye Protection

Safety glasses, face shield or chemical splash goggles must be worn when possibility exists for eye contact. Contact lenses should not be worn. Eye wash facilities are recommended.

Other Hygienic Practices

Use good personal hygiene practices. Wash hands before eating, drinking, smoking, or using toilet facilities. Promptly remove soiled clothing and wash thoroughly before re-use.

Exposure Guidelines

Exposure Limits

Component	CAS Number	PEL (OSHA)	TLV (ACGIH)
Ethylene Glycol	107-21-1	50 ppm	50 ppm
2-Ethoxyethanol	110-80-5	200 ppm	50 ppm skin
Hexylene Glycol	107-41-5	25 ppm	25 ppm
Ferrous Sulfate	7720-78-7	1.0 mg/cu.M	1.0 mg/cu.M
2-Aminoethanol	141-43-5	3 ppm	3 ppm, 6ppm STEL

Section 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Data

Boiling Point:	Not applicable
Vapor Pressure:	Not applicable
Vapor Density:	Not applicable
Melting Point:	Not applicable
Evaporation Rate:	<1 (Butyl Acetate = 1.0)

Solubility in Water:	100%
pH:	7.3
Specific Gravity:	1.11 @ 20°C
Odor:	Organic
Form:	Liquid
Color:	Dark Brown

Section 10. STABILITY AND REACTIVITY

Chemical Stability

Stable.

Incompatibility, Materials to Avoid

Avoid use of product on burning metals, electrically-energized equipment and contact with water reactive materials.

Polymerization

Will not occur.

Section 11. TOXICOLOGICAL INFORMATION

Mammalian Toxicity

Ingestion

This material was not toxic when administered to Sprague-Dawley rats at an acute oral dose of 5g/kg body weight.

Eye

Animal testing indicates this material is not a primary eye irritant when tested undiluted on New Zealand Albino Rabbits.

Skin

Animal testing indicates this material is not a primary skin irritant when tested undiluted on New Zealand Albino Rabbits.

Inhalation

No data available at this time.

Carcinogenic, Developmental, Reproductive, Mutagenic Effects

No data available on this material.

Section 12. ECOLOGICAL INFORMATION

Ecotoxicological Information Aquatic Toxicity

No data available.

Environmental Fate

BOD ₅ Concentrate	223,000 mg/kg
COD Concentrate	1,030,000 mg/kg

Section 13. DISPOSAL CONSIDERATIONS

Concentrate

Do not discharge into biological sewer treatment systems without prior approval. Specific concerns are high BOD load and foaming tendency. Low dosage flow rate or antifoaming agents acceptable to the treatment plant may be helpful. Do not flush to waterways. Disposal should be made in accordance with federal, state and local regulations.

Foam/Foam Solution

Aer-O-Foam 3% Cold Foam solution can be treated by waste water treatment facilities. Discharge into biological sewer treatment facilities may be done with prior approval. Specific concerns are high BOD load. Dilution will reduce BOD and COD factors proportionately. Low dosage flow rate or antifoaming agents acceptable to the treatment plant may be helpful. Do not flush to waterways. Disposal should be made in accordance with federal, state and local regulations.

NOTE: As a service to our customers, National Foam has approvals in place with disposal facilities throughout the U.S. for waste water treatment and solidification and landfill of our foam liquid concentrates and foam solutions. If required, National Foam, Inc. can also provide information on the disposal of drums used for shipping our concentrates. Please contact National Foam's Risk Management Administrator at (610) 363-1400 for additional information.

Section 14. TRANSPORTATION INFORMATION

Shipping Information

Proper Shipping Name: Fire Extinguisher Charges or Compounds N.O.I., Class 60

National Motor Freight Code: 69160 Sub 0

Hazard Class: None

UN Number: None

Section 15. REGULATORY INFORMATION

U.S. Federal Regulations

Toxic Substances Control Act (TSCA)

All components of this product are listed in the TSCA inventory.

Superfund Amendments and Reauthorization Act of 1986 (SARA), Title III

Section 302/304

There are no components of this material with known CAS numbers which are on the Extremely Hazardous Substances (EHS) list.

Section 311 & 312

Based on available information, this material contains the following components which are classified as the following health and/or physical hazards according to Section 311 & 312:

Ethylene Glycol	107-21-1	Health-Immediate and Chronic.
Hexylene Glycol	107-41-5	Health-Immediate
Zinc Chloride	7646-85-7	Health-Immediate

Section 313

This material contains the following chemical components subject to Section 313 reporting requirements.

Ethylene Glycol	107-21-1
2 Ethoxyethanol	110-80-5
Zinc Chloride	7646-85-7

COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT (CERCLA)

This material contains the following components subject to the reporting requirements of CERCLA.

Ethylene Glycol	107-21-1	less than 21% by weight
2 Ethoxyethanol	110-80-5	less than 21% by weight
Ferrous Sulfate	7720-78-7	less than 2% by weight
Zinc Chloride	7646-85-7	less than 1% by weight

OTHER REGULATORY INFORMATION

None.

STATE REGULATIONS

PENNSYLVANIA RIGHT-TO-KNOW HAZARDOUS SUBSTANCES LIST

PA Hazardous Substances present at levels greater than 1%:

Ethylene Glycol	107-21-1
2 Ethoxyethanol	110-80-5
Hexylene Glycol	107-41-5
Ferrous Sulfate	7720-78-7

Section 16 OTHER INFORMATION

NFPA Rating

Health 0
Flammability 0
Reactivity 0

ADDITIONAL INFORMATION

Revision Summary

2/5/99 Added MSDS number, updated Section 1,3,4,6,7,8,9,11,12,13,15.

10/2/96 Revised to ANSI format.

08/10/00 Revised Section 1

For further information, see National Foam Product Data Sheet for Aer-O-Foam 3% Cold Foam.

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August 10, 2000