1. IDENTIFICATION

Product Name: Alcoseal® 3-3 Alcohol Resistant Film Forming Fluoroprotein Foam Concentrate

Recommended use of the chemical and restrictions on use:
- Identified uses: Firefighting Foam Concentrate
- Restrictions on Use: See product data sheet

Company Identification:
- Angus Fire
- 141 Junny Street
- Angier, NC 27501-8625

Customer Information Number: (919) 331-6100

Emergency Telephone Number: Infotrac at (800) 535-5053

Issue Date: January 31, 2017

Supersedes Date: This is the first issue.

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:
- Skin Sensitization - Category 1

Label Elements:
- Hazard Symbols

Signal Word: Warning

Hazard Statements:
- May cause an allergic skin reaction.

Precautionary Statements:

Prevention:
- Wear eye protection, protective gloves, and protective clothing.
- Avoid breathing mist, vapors or spray.
- Contaminated work clothing must not be allowed out of the workplace.

Response:
- 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.

Storage:
- None

Disposal:
- Dispose of contents/container in accordance with local regulation.

Other Hazards:
- None identified.
2. HAZARD IDENTIFICATION

Specific Concentration Limits
The values listed below represent the percentages of ingredients of unknown toxicity.
- Acute oral toxicity <10%
- Acute dermal toxicity 25 - 35%
- Acute inhalation toxicity 25 - 35%
- Acute aquatic toxicity 30 - 40%

3. COMPOSITION/INFORMATION ON INGREDIENTS

This product is a mixture.

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS Number</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>55 - 65%</td>
</tr>
<tr>
<td>Hexylene Glycol</td>
<td>107-41-5</td>
<td>1 - 10%</td>
</tr>
<tr>
<td>Fluoroalkyl Surfactants</td>
<td>Proprietary</td>
<td>1 - 10%</td>
</tr>
<tr>
<td>Ethanol</td>
<td>64-17-5</td>
<td>&lt;2%</td>
</tr>
<tr>
<td>Biocide</td>
<td>Proprietary</td>
<td>&lt;1%</td>
</tr>
</tbody>
</table>

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.
- 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
5. FIRE - FIGHTING MEASURES

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.

Hexylene Glycol
ACGIH: Ceiling 25 ppm
Ethanol
ACGIH: 1000 ppm 15-min STEL
OSHA: PEL 1000 ppm (1900 mg/m³) 8h TWA

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 to high vapor concentrations, aerosols or if applied to hot surfaces. 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.
8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Skin Protection
Gloves

Eye/Face Protection
Chemical goggles or safety glasses with side shields.

Body Protection
Normal work wear.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Appearance</th>
<th>Physical State</th>
<th>Color</th>
<th>Odor</th>
<th>Odor Threshold</th>
<th>pH</th>
<th>Relative Density</th>
<th>Boiling Range/Point (°C/F)</th>
<th>Melting Point (°C/F)</th>
<th>Flash Point (°C/F)</th>
<th>Vapor Pressure</th>
<th>Evaporation Rate (BuAc=1)</th>
<th>Solubility in Water</th>
<th>Vapor Density (Air = 1)</th>
<th>VOC (%)</th>
<th>Partition coefficient (n-octanol/water)</th>
<th>Viscosity</th>
<th>Auto-ignition Temperature</th>
<th>Decomposition Temperature</th>
<th>Upper explosive limit</th>
<th>Lower explosive limit</th>
<th>Flammability (solid, gas)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquid</td>
<td>Physical State</td>
<td>Liquid</td>
<td>Odor</td>
<td>No data available</td>
<td>pH</td>
<td>Relative Density</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
<td>Soluble</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
</tr>
<tr>
<td>Dark brown</td>
<td>Color</td>
<td>Dark brown</td>
<td>Odor</td>
<td>Characteristic</td>
<td>pH</td>
<td>7.1</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
<td>Soluble</td>
<td>Not applicable</td>
<td>No data available</td>
<td>No data available</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

Reactivity
No data available.

Chemical Stability
Stable under normal conditions.

Possibility of hazardous reactions
Hazardous polymerization will not occur.

Conditions to Avoid
Contact with incompatible materials

Incompatible Materials
Water reactive materials – alkali metals – electrically energized equipment
10. STABILITY AND REACTIVITY

Hazardous Decomposition Products

11. TOXICOLOGICAL INFORMATION

Acute Toxicity
Hexylene Glycol
Oral LD50 rat >2000 mg/kg
Dermal LD50 rabbit >2000 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
Available data indicates this product is not expected to cause target organ effects after repeated exposures.

Serious Eye damage/Irritation
Product: Available data indicates this product is not expected to cause eye irritation.
Hexylene Glycol: Causes serious eye irritation.

Skin Corrosion/Irritation
Product: Available data indicates this product is not expected to cause skin irritation.
Hexylene Glycol: Causes skin irritation.

Respiratory or Skin Sensitization
Biocide: Classified as skin sensitizer at ≥ 0.1% (ECHA)

Carcinogenicity
Not considered carcinogenic by NTP, IARC, and OSHA.

Germ Cell Mutagenicity
No relevant studies identified.

Reproductive Toxicity
No relevant studies identified.

Aspiration Hazard
Not an aspiration hazard.

12. ECOLOGICAL INFORMATION

Ecotoxicity
No relevant studies identified.

Mobility in soil
No relevant studies identified.

Persistence/Degradability
No relevant studies identified.
12. **ECOLOGICAL INFORMATION**

**Bioaccumulative Potential**
This product is not expected to bioaccumulate.

**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 Angus Fire for additional information regarding the disposal of foam concentrates and foam solutions.

14. **TRANSPORT INFORMATION**

**Shipping Information**

**Shipping Description**
Fire Extinguisher Charges or Compounds N.O.I., Class 70

**National Motor Freight Code**
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**
This product contains an ingredient that has not been verified for compliance with the inventory listing requirements of the US Toxic Substance Control Act (TSCA) Chemical Substance Inventory.
This product contains an ingredient that has restricted use under the EPA Toxic Substance Control Act.
This product may only be used as a fire fighting foam. Any other use of this product is strictly prohibited.

**Canada DSL Inventory**
This product contains an ingredient that is not listed on the Domestic Substance List (DSL) or the Non-Domestic Substance List (NDSL).
This product contains an ingredient that has not been verified for listing on the Domestic Substance List (DSL) or the Non-Domestic Substance List (NDSL).
15. REGULATORY INFORMATION

SARA Title III Sect. 311/312 Categorization
Skin sensitization

SARA Title III Sect. 313
This product contains the following chemicals that are listed in Section 313 at or above de minimis concentrations: None

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)
None

16. OTHER INFORMATION

NFPA Ratings
NFPA Code for Health - 2
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)
BOD₂₈: Biochemical Oxygen Demand (28 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
TSCA: Toxic Substance Control Act

Revision Date: January 31, 2017
Replaces: This is the first issue.
Changes made: Not applicable

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

Prepared By: EnviroNet LLC.
16. OTHER INFORMATION

Al coseal is a registered trademark of Angus International.

The information and recommendations presented in this SDS are based on sources believed to be accurate. Angus Fire assumes no liability for the accuracy or completeness of this information. It is the user’s responsibility to determine the suitability of the material for their particular purposes. In particular, we make NO WARRANTY OF MERCHANTABILITY OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED, with respect to such information, and we assume no liability resulting from its use. Users should ensure that any use or disposal of the material is in accordance with applicable Federal, State, and local laws and regulations.