Safety Data Sheet

This safety data sheet complies with the requirements of: 2012 OSHA Hazard Communication Standard (29CFR 1910.1200)

Product name ANSULITE 3% AFFF (AFC-3MS)

1. Identification

1.1. Product Identifier
Product name ANSULITE 3% AFFF (AFC-3MS)

1.2. Other means of identification
Product code 442707
Synonyms None
Chemical Family No information available

1.3. Recommended use of the chemical and restrictions on use
Recommended use Fire extinguishing agent.
Uses advised against Consumer use.

1.4. Details of the Supplier of the Safety Data Sheet
Company Name Tyco Fire Protection Products
One Stanton Street
Marinette, WI 54143-2542
Telephone: 715-735-7411

Contact point Product Stewardship at 1-715-735-7411
E-mail address psra@tycofp.com

1.5. Emergency Telephone Number
Emergency telephone CHEMTREC 001-800-424-9300 or 001-703-527-3887

2. Hazards Identification

Classification
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Serious eye damage/eye irritation - Category 1
Skin Sensitization - Category 1B

2.2. Label Elements

Signal Word
DANGER

Hazard Statements
Causes serious eye damage
May cause an allergic skin reaction
Precautionary Statements

Prevention
Wear protective gloves/protective clothing/eye protection/face protection. Avoid breathing dust/fume/gas/mist/vapors/spray. Contaminated work clothing should not be allowed out of the workplace.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
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.

Disposal
Dispose of contents/container to an approved waste disposal plant.

2.3. Hazards Not Otherwise Classified (HNOC)
Not Applicable.

2.4. Other Information

3. Composition/information on Ingredients

3.1. Mixture
The following component(s) in this product are considered hazardous under applicable OSHA(USA)

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS No.</th>
<th>weight-%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-(2-Butoxyethoxy)ethanol</td>
<td>112-34-5</td>
<td>10 - 30</td>
</tr>
<tr>
<td>Laurylamilodipropyl betaine</td>
<td>4292-10-8</td>
<td>1 - 5</td>
</tr>
<tr>
<td>Caprylcapryl glycoseide</td>
<td>68515-73-1</td>
<td>1 - 5</td>
</tr>
<tr>
<td>Polyfluorinated alkyl polyamide</td>
<td>Proprietary</td>
<td>1 - 5</td>
</tr>
<tr>
<td>Octylphenoxypolyethoxyethanol</td>
<td>9036-19-5</td>
<td>1 - 5</td>
</tr>
<tr>
<td>Polyfluorinated alkyl quaternary amine chloride</td>
<td>Proprietary</td>
<td>0.1 - 1</td>
</tr>
</tbody>
</table>

4. First aid measures

4.1. Description of first aid measures
Eye Contact
Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Skin contact
Wash skin with soap and water. Get medical attention if irritation develops and persists.

Inhalation
Remove to fresh air. If breathing is difficult, give oxygen. (Get medical attention immediately if symptoms occur.).

Ingestion
Rinse mouth. Do not induce vomiting without medical advice. If swallowed, call a poison control center or physician immediately.

4.2. Most Important Symptoms and Effects, Both Acute and Delayed
Symptoms
No information available.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed
Note to physicians
Treat symptomatically.

5. Fire-fighting measures
5.1. Suitable Extinguishing Media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.2. Unsuitable Extinguishing Media
None.

5.3. Specific Hazards Arising from the Chemical
None known.

5.4. Explosion Data
- Sensitivity to Mechanical Impact: None.
- Sensitivity to Static Discharge: None.

5.5. Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
- Personal Precautions: Ensure adequate ventilation, especially in confined areas.
- For emergency responders: Use personal protection recommended in Section 8.

6.2. Environmental Precautions
- Environmental Precautions: Prevent further leakage or spillage if safe to do so. Prevent entry into waterways, sewers, basements or confined areas. See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up
- Methods for Containment: Prevent further leakage or spillage if safe to do so.
- Methods for Cleaning Up: Pick up and transfer to properly labeled containers.

7. Handling and Storage

7.1. Precautions for Safe Handling
- Advice on safe handling: Avoid contact with skin and eyes. Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities
- Storage Conditions: Keep containers tightly closed in a dry, cool and well-ventilated place.
8. Exposure Controls/Personal Protection

8.1. Control Parameters

Exposure guidelines

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH IDLH</th>
<th>Mexico OEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-(2-Butoxyethoxy)ethanol</td>
<td>TWA: 10 ppm inhalable fraction and vapor</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

ACGIH (American Conference of Governmental Industrial Hygienists) OSHA (Occupational Safety and Health Administration of the US Department of Labor) NIOSH IDLH Immediately Dangerous to Life or Health

8.2. Appropriate Engineering Controls

Engineering controls

Ensure adequate ventilation, especially in confined areas.

8.3. Individual protection measures, such as personal protective equipment

Eye/Face Protection

Avoid contact with eyes. Tight sealing safety goggles.

Skin and Body Protection

Wear protective gloves and protective clothing.

Respiratory Protection

If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

Ventilation

Use local exhaust or general dilution ventilation to control exposure with applicable limits

8.4. General hygiene considerations

Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks • Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Liquid</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Characteristic</td>
<td>Color</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>7 - 8.5</td>
<td></td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Flash Point</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Flammability limit in air</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Upper flammability limit:</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Lower flammability limit:</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Vapor Density</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Specific gravity</td>
<td>No data available</td>
<td></td>
</tr>
<tr>
<td>Water Solubility</td>
<td>No data available</td>
<td></td>
</tr>
</tbody>
</table>
10. Stability and Reactivity

10.1. Chemical Stability

Stable under recommended storage conditions.

10.2. Reactivity

No data available

10.3. Possibility of hazardous reactions

None under normal processing.

Hazardous Polymerization  
Hazardous polymerization does not occur.

10.4. Conditions to Avoid

Extremes of temperature and direct sunlight.

10.5. Incompatible Materials


10.6. Hazardous decomposition products


11. Toxicological Information

11.1. Information on Likely Routes of Exposure

Product information

Inhalation  
No data available.

Eye Contact  
Corrosive to the eyes and may cause severe damage including blindness.

Skin contact  
May cause allergic skin reaction.

Ingestion  
No data available.

Component Information

Acute Toxicity

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-(2-Butoxyethoxy)ethanol</td>
<td>= 5660 mg/kg (Rat)</td>
<td>= 2700 mg/kg (Rabbit)</td>
<td>-</td>
</tr>
<tr>
<td>112-34-5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Revision date 11-Jan-2019  
Version 5
11.2. Information on Toxicological Effects

Symptoms

No information available.

11.3. Delayed and immediate effects as well as chronic effects from short and long-term exposure

### Component Information
#### Polyfluorinated alkyl polyamide

<table>
<thead>
<tr>
<th>Method</th>
<th>Exposure Route</th>
<th>Effective dose</th>
<th>Exposure time</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>OECD Test No. 439: In Vitro Skin Irritation: Reconstructed Human Epidermis Test Method</td>
<td>in vitro</td>
<td>&gt;2000 mg/kg</td>
<td>&gt;2000 mg/kg</td>
<td>&gt;5.11 mg/l</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt;4190 mg/kg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Octylphenoxypolyethoxyethanol 9036-19-5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Polyfluorinated alkyl quaternary amine chloride</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Serious eye damage/eye irritation

Risk of serious damage to eyes.

### Sensitization

May cause sensitization by skin contact.

#### Polyfluorinated alkyl polyamide

<table>
<thead>
<tr>
<th>Method</th>
<th>Exposure Route</th>
<th>Effective dose</th>
<th>Exposure time</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>OECD Test No. 405: Acute Eye Irritation/Corrosion Method</td>
<td>eye</td>
<td></td>
<td></td>
<td>Class 4 on a 1 to 8 scale according to a modified Kay and Calandra classification system. Mild eye irritation</td>
</tr>
</tbody>
</table>

#### Polyfluorinated alkyl quaternary amine chloride

<table>
<thead>
<tr>
<th>Method</th>
<th>Exposure Route</th>
<th>Effective dose</th>
<th>Exposure time</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>OECD Test No. 429: Skin Sensitisation: Local Lymph Node Assay</td>
<td>mouse dermal</td>
<td></td>
<td>sensitizing</td>
<td></td>
</tr>
</tbody>
</table>

#### Polyfluorinated alkyl polyamide

<table>
<thead>
<tr>
<th>Method</th>
<th>Exposure Route</th>
<th>Results</th>
</tr>
</thead>
</table>

Carcinogenicity

No information available.

Reproductive Toxicity

No information available.

STOT - Single Exposure

No information available.

STOT - Repeated Exposure

No information available.

Aspiration Hazard

No information available.
11.4. Numerical Measures of Toxicity - Product information

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 5101 mg/kg
ATEmix (dermal) 12061 mg/kg
ATEmix (inhalation-dust/mist) 129.5 mg/l

12. Ecological Information

12.1. Ecotoxicity

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Algae/aquatic plants</th>
<th>Fish</th>
<th>Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-(2-Butoxyethoxy)ethanol 112-34-5</td>
<td>EC50 (96h) &gt; 100 mg/L Desmodesmus subspicatus</td>
<td>LC50 (96h) static = 1300 mg/L Lepomis macrochirus</td>
<td>EC50 (48h) &gt; 100 mg/L Daphnia magna EC50 (24h) = 2850 mg/L Daphnia magna</td>
</tr>
<tr>
<td>2-Methyl-2,4-pentanediol 107-41-5</td>
<td>-</td>
<td>LC50 (96h) static = 10700 mg/L Pimephales promelas LC50 (96h) static = 10000 mg/L Lepomis macrochirus LC50 (96h) flow-through = 8690 mg/L Pimephales promelas LC50 (96h) flow-through = 10500 - 11000 mg/L Pimephales promelas</td>
<td>EC50 (48h) = 2700 - 3700 mg/L Daphnia magna</td>
</tr>
<tr>
<td>t-Butanol 75-65-0</td>
<td>EC50 (72h) &gt; 1000 mg/L Desmodesmus subspicatus</td>
<td>LC50 (96h) flow-through = 6130 - 6700 mg/L Pimephales promelas</td>
<td>EC50 (48h) = 933 mg/L Daphnia magna EC50 (48h) Static = 4607 - 6577 mg/L Daphnia magna</td>
</tr>
<tr>
<td>Polyethylene Glycol 25322-68-3</td>
<td>-</td>
<td>LC50 (24h) &gt; 5000 mg/L Carassius auratus</td>
<td>-</td>
</tr>
<tr>
<td>Sodium chloride 7647-14-5</td>
<td>-</td>
<td>LC50 (96h) flow-through = 4747 - 7824 mg/L Oncorhynchus mykiss LC50 (96h) semi-static = 7050 mg/L Pimephales promelas LC50 (96h) static = 12946 mg/L Lepomis macrochirus LC50 (96h) static = 6020 - 7070 mg/L Pimephales promelas LC50 (96h) flow-through = 5560 - 6090 mg/L Lepomis macrochirus LC50 (96h) static = 6420 - 6700 mg/L Pimephales promelas</td>
<td>EC50 (48h) Static = 340.7 - 469.2 mg/L Daphnia magna EC50 (48h) = 1000 mg/L Daphnia magna</td>
</tr>
<tr>
<td>4,4'-bis-(sulfostyryl)-biphenyl disodium salt 27344-41-8</td>
<td>EC50 (72h) = 10 mg/L Desmodesmus subspicatus EC50 (96h) 10.0 - 11.0 mg/L Desmodesmus subspicatus</td>
<td>LC50 (96h) static = 76 mg/L Brachydanio rerio</td>
<td>EC50 (48h) = 1000 mg/L Daphnia magna</td>
</tr>
</tbody>
</table>

Polyfluorinated alkyl polyamide

<table>
<thead>
<tr>
<th>Method</th>
<th>Species</th>
<th>Endpoint type</th>
<th>Effective dose</th>
<th>Exposure time</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>OECD Test No. 203: Fish, Acute Toxicity Test</td>
<td>Oncorhynchus mykiss (rainbow trout)</td>
<td>LC50</td>
<td>&gt;14 mg/l</td>
<td>96h</td>
<td>NOEC: 14 mg/L No toxic effects at saturation.</td>
</tr>
<tr>
<td>OECD Test No. 201: Freshwater Alga and Cyanobacteria, Growth Inhibition Test</td>
<td>Algae</td>
<td>ErC50</td>
<td>&gt;15 mg/l</td>
<td>72h</td>
<td>Growth rate &gt;15, Yield 13. NOEC: 4.0 mg/L, LOEC: 8.5 mg/L</td>
</tr>
<tr>
<td>OECD Test No. 202: Daphnia sp., Acute Immobilization Test</td>
<td>Daphnia magna</td>
<td>EC50</td>
<td>&gt;20 mg/l</td>
<td>48h</td>
<td>NOEC: 20 mg/L No toxic effects at saturation.</td>
</tr>
</tbody>
</table>

Polyfluorinated alkyl quaternary amine chloride

<table>
<thead>
<tr>
<th>Method</th>
<th>Species</th>
<th>Endpoint type</th>
<th>Effective dose</th>
<th>Exposure time</th>
<th>Results</th>
</tr>
</thead>
</table>

Revision date 11-Jan-2019
12.2. Persistence and Degradability
No information available.

12.3. Bioaccumulation
No information available.

12.4. Other Adverse Effects
No information available.

13. Disposal Considerations

13.1. Waste Treatment Methods
Disposal of wastes: Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging: Do not reuse container.

14. Transport Information

DOT: NOT REGULATED
TDG: NOT REGULATED
MEX: NOT REGULATED
ICAO (air): NOT REGULATED
IATA: NOT REGULATED
IMDG: NOT REGULATED

15. Regulatory Information

15.1. International Inventories
TSCA: Complies
DSL/NDSL: Does not comply
ENCS: Does not comply
IECSC: Does not comply
KECL  Does not comply  
PICCS  Does not comply  
AICS  Does not comply  

**Legend:**  
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory  
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List  
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  

15.2. US Federal Regulations

**SARA 313**  
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>SARA 313 - Threshold Values %</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-(2-Butoxyethoxy)ethanol - 112-34-5</td>
<td>1.0</td>
</tr>
</tbody>
</table>

**SARA 311/312 Hazard Categories**

- Acute Health Hazard: Yes  
- Chronic health hazard: No  
- Fire Hazard: No  
- Sudden Release of Pressure Hazard: No  
- Reactive Hazard: No

**CWA (Clean Water Act)**
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

**CERCLA**
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

15.3. US State Regulations

**California Proposition 65**
This product contains the following Proposition 65 chemicals

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>California Proposition 65</th>
</tr>
</thead>
<tbody>
<tr>
<td>Perfluorooctanoic acid - 335-67-1</td>
<td>Developmental Toxicity</td>
</tr>
</tbody>
</table>

**U.S. State Right-to-Know Regulations**

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>New Jersey</th>
<th>Massachusetts</th>
<th>Pennsylvania</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-(2-Butoxyethoxy)ethanol - 112-34-5</td>
<td>X</td>
<td>-</td>
<td>X</td>
</tr>
</tbody>
</table>

16. Other information, including date of preparation of the last revision

Revision date 11-Jan-2019  
Version 5
The information provided in this 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.

End of Safety Data Sheet

NFPA

Health Hazards 2

Flammability 0

Instability 0

Physical and chemical properties

HMIS

Health Hazards 2

Flammability 0

Physical Hazards 0

Personal Protection X

Revision date 11-Jan-2019

Revision note SDS sections updated, 2, 11, 12.

Disclaimer