



## Safety Data Sheet

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

**Product name** ANSULITE A137 1x3 AR-AFFF

### 1. Identification

#### 1.1. Product Identifier

**Product name** ANSULITE A137 1x3 AR-AFFF

#### 1.2. Other means of identification

**Product code** 446703  
**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)

Chemical name	CAS No.	weight-%
2-(2-Butoxyethoxy)ethanol	112-34-5	7 - 13
Sodium Decyl Sulfate	142-87-0	1 - 5
D-Glucopyranoside, C9-C11 Oligomer	132778-08-6	1 - 5
Polyfluorinated alkyl quaternary amine chloride	Proprietary	1 - 5
1-Propanaminium, N-(3-Aminopropyl)-2-hydroxy-N,N-dimethyl-3-sulfo-, N-Coco-acylderivates	68139-30-0	1 - 5
Polyfluorinated alkyl polyamide	Proprietary	0.1 - 1

## 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.

#### Hazardous Combustion Products

Carbon oxides, Fluorinated oxides, Nitrogen oxides (NOx), Oxides of sulfur

### 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.



**Incompatible Materials** Strong oxidizing agents. Strong acids. Strong bases.

**8. Exposure Controls/Personal Protection**

**8.1. Control Parameters**

**Exposure guidelines**

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH	Mexico OEL
2-(2-Butoxyethoxy)ethanol 112-34-5	TWA: 10 ppm inhalable fraction and vapor	-	-	-

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**

<b>Physical State</b>	Liquid	<b>Color</b>	Yellow
<b>Odor</b>	Characteristic		
<b>Odor Threshold</b>	No data available		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	7.3 - 8.3	
Melting point/freezing point	No data available	
Boiling point / boiling range	No data available	
Flash Point	No data available	
Evaporation Rate	No data available	
Flammability (solid, gas)	No data available	
Flammability limit in air		
Upper flammability limit:	No data available	
Lower flammability limit:	No data available	
Vapor Pressure	No data available	
Vapor Density	No data available	



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Specific gravity No data available  
Water Solubility No data available  
Solubility in Other Solvents No data available  
Partition coefficient No data available  
Autoignition Temperature No data available  
Decomposition Temperature No data available  
Kinematic viscosity No data available

VOC content (%) 13.07116  
Density 1.039 g/cm<sup>3</sup>

## 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

Strong oxidizing agents. Strong acids. Strong bases.

### 10.6. Hazardous decomposition products

Carbon oxides. Nitrogen oxides (NO<sub>x</sub>). Oxides of sulfur. Fluorinated oxides.

## 11. Toxicological Information

### 11.1. Information on Likely Routes of Exposure

#### Product information

**Inhalation** No data available.  
**Eye Contact** Severely irritating to eyes.  
**Skin contact** May cause irritation.  
**Ingestion** No data available.

#### Component Information

##### Acute Toxicity

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
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2-(2-Butoxyethoxy)ethanol 112-34-5	= 5660 mg/kg ( Rat )	= 2700 mg/kg ( Rabbit )	-
Sodium Decyl Sulfate 142-87-0	= 1950 mg/kg ( Rat )	-	-
Polyfluorinated alkyl quaternary amine chloride	>300 - <2000 mg/kg	-	-
Polyfluorinated alkyl polyamide	>2000 mg/kg	>2000 mg/kg	>5.11 mg/l

**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**

**Skin Corrosion/Irritation** Irritating to skin.

Component Information					
Polyfluorinated alkyl quaternary amine chloride					
Method	species	Exposure Route	Effective dose	Exposure time	Results
OECD Test No. 439: In Vitro Skin Irritation: Reconstructed Human Epidermis Test Method	EPISKIN™	in vitro			Non-irritant

**Serious eye damage/eye irritation** Severely irritating to eyes.

Component Information					
Polyfluorinated alkyl polyamide					
Method	species	Exposure Route	Effective dose	Exposure time	Results
OECD Test No. 405: Acute Eye Irritation/Corrosion	Rabbit	eye			Class 4 on a 1 to 8 scale according to a modified Kay and Calandra classification system. Mild eye irritation

**Sensitization** May cause sensitization by skin contact.

Component Information			
Polyfluorinated alkyl quaternary amine chloride			
Method	species	Exposure Route	Results
OECD Test No. 429: Skin Sensitisation: Local Lymph Node Assay	mouse	dermal	sensitizing

Polyfluorinated alkyl polyamide			
Method	species	Exposure Route	Results
OECD Test No. 429: Skin Sensitisation: Local Lymph Node Assay	mouse	dermal	sensitizing

**Germ Cell Mutagenicity** Non-clastogenic to human lymphocytes in vitro.

Component Information		
Polyfluorinated alkyl polyamide		
Method	species	Results
OECD Test No. 473: In vitro Mammalian Chromosome Aberration Test	in vitro	Non-clastogenic to human lymphocytes in vitro.

**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.



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#### 11.4. Numerical Measures of Toxicity - Product information

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

ATEmix (oral) 8549 mg/kg  
ATEmix (dermal) 26363 mg/kg

### 12. Ecological Information

#### 12.1. Ecotoxicity

Chemical name	Algae/aquatic plants	Fish	Crustacea
2-(2-Butoxyethoxy)ethanol 112-34-5	EC50 (96h) > 100 mg/L Desmodesmus subspicatus	LC50 (96h) static = 1300 mg/L Lepomis macrochirus	EC50 (48h) > 100 mg/L Daphnia magna EC50 (24h) = 2850 mg/L Daphnia magna
1,2-Propanediol 57-55-6	EC50 (96h) = 19000 mg/L Pseudokirchneriella subcapitata	LC50 (96h) static = 51600 mg/L Oncorhynchus mykiss LC50 (96h) static = 51400 mg/L Pimephales promelas LC50 (96h) = 710 mg/L Pimephales promelas LC50 (96h) static 41 - 47 mL/L Oncorhynchus mykiss	EC50 (48h) Static > 1000 mg/L Daphnia magna EC50 (24h) > 10000 mg/L Daphnia magna
2-Methyl-2,4-pentanediol 107-41-5	-	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	EC50 (48h) 2700 - 3700 mg/L Daphnia magna
Sodium chloride 7647-14-5	-	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 - 6080 mg/L Lepomis macrochirus LC50 (96h) static 6420 - 6700 mg/L Pimephales promelas	EC50 (48h) Static 340.7 - 469.2 mg/L Daphnia magna EC50 (48h) = 1000 mg/L Daphnia magna
n-Butanol 71-36-3	EC50 (96h) > 500 mg/L Desmodesmus subspicatus EC50 (72h) > 500 mg/L Desmodesmus subspicatus	LC50 (96h) static = 1910000 µg/L Pimephales promelas LC50 (96h) static 1730 - 1910 mg/L Pimephales promelas LC50 (96h) flow-through = 1740 mg/L Pimephales promelas LC50 (96h) static 100000 - 500000 µg/L Lepomis macrochirus	EC50 (48h) Static 1897 - 2072 mg/L Daphnia magna EC50 (48h) = 1983 mg/L Daphnia magna
1-Octanol 111-87-5	EC50 (48h) static = 14 mg/L Desmodesmus subspicatus	LC50 (96h) static = 17.68 mg/L Oncorhynchus mykiss LC50 (96h) flow-through 11.4 - 12.9 mg/L Pimephales promelas	EC50 (24h) 15 - 26 mg/L Daphnia magna
t-Butanol 75-65-0	EC50 (72h) > 1000 mg/L Desmodesmus subspicatus	LC50 (96h) flow-through 6130 - 6700 mg/L Pimephales promelas	EC50 (48h) = 933 mg/L Daphnia magna EC50 (48h) Static 4607 - 6577 mg/L Daphnia magna
Sodium Hydrogen Carbonate 144-55-8	EC50 (120h) = 650 mg/L Nitzschia linearis	LC50 (96h) static 8250 - 9000 mg/L Lepomis macrochirus	EC50 (48h) = 2350 mg/L Daphnia magna
Formaldehyde 50-00-0	-	LC50 (96h) static 100 - 136 mg/L Oncorhynchus mykiss LC50 (96h) flow-through 0.032 - 0.226 mL/L	LC50 (48h) = 2 mg/L Daphnia magna EC50 (48h) Static 11.3 - 18 mg/L Daphnia magna



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		Oncorhynchus mykiss LC50 (96h) flow-through 22.6 - 25.7 mg/L Pimephales promelas LC50 (96h) static 23.2 - 29.7 mg/L Pimephales promelas LC50 (96h) static = 41 mg/L Brachydanio rerio LC50 (96h) static = 1510 µg/L Lepomis macrochirus	
Hexamethylenetetramine 100-97-0	-	LC50 (96h) flow-through 44600 - 55600 mg/L Pimephales promelas	EC50 (48h) 29868 - 43390 mg/L Daphnia magna
Methylene chloride 75-09-2	EC50 (72h) > 500 mg/L Pseudokirchneriella subcapitata EC50 (96h) > 500 mg/L Pseudokirchneriella subcapitata	LC50 (96h) static = 193 mg/L Lepomis macrochirus LC50 (96h) flow-through = 193 mg/L Lepomis macrochirus LC50 (96h) static 262 - 855 mg/L Pimephales promelas LC50 (96h) flow-through 140.8 - 277.8 mg/L Pimephales promelas	EC50 (48h) Static 1532 - 1847 mg/L Daphnia magna EC50 (48h) = 190 mg/L Daphnia magna
1,3-Dichloropropene 542-75-6	EC50 (96h) 2.45 - 6.45 mg/L Pseudokirchneriella subcapitata EC50 (72h) 3.12 - 10.5 mg/L Pseudokirchneriella subcapitata	LC50 (96h) semi-static = 4.5 mg/L Oncorhynchus mykiss LC50 (96h) = 2 mg/L Oncorhynchus mykiss LC50 (96h) static 1.52 - 2.68 mg/L Pimephales promelas LC50 (96h) static 5.1 - 6.8 mg/L Lepomis macrochirus LC50 (96h) static 3.1 - 4.9 mg/L Oncorhynchus mykiss LC50 (96h) flow-through 0.211 - 0.271 mg/L Pimephales promelas	EC50 (48h) Static 0.063 - 0.129 mg/L Daphnia magna EC50 (48h) = 0.09 mg/L Daphnia magna
4,4'-bis-(sulfostyryl)-biphenyl disodium salt 27344-41-8	EC50 (72h) = 10 mg/L Desmodesmus subspicatus EC50 (96h) 10.0 - 11.0 mg/L Desmodesmus subspicatus	LC50 (96h) static = 76 mg/L Brachydanio rerio	EC50 (48h) = 1000 mg/L Daphnia magna

Polyfluorinated alkyl quaternary amine chloride					
Method	Species	Endpoint type	Effective dose	Exposure time	Results
OECD Test No. 211: Daphnia magna Reproduction Test	Daphnia magna	NOEC	5.38 mg/L	21 days	
OECD Test No. 202: Daphnia sp., Acute Immobilization Test	Daphnia magna	EC50	2.6 mg/L	48h	
OECD Test No. 210: Fish, Early-Life Stage Toxicity Test	Pimephales promelas	NOEC	11.8 mg/L	33 days	
OECD Test No. 203: Fish, Acute Toxicity Test	Cyprinus carpio	LC50	98 mg/L	96h	
OECD Test No. 201: Freshwater Alga and Cyanobacteria, Growth Inhibition Test	Pseudokirchneriella subcapitata	EC50	788 mg/L	96h	

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





**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**

<u>DOT</u>	NOT REGULATED
<u>TDG</u>	NOT REGULATED
<u>MEX</u>	NOT REGULATED
<u>ICAO (air)</u>	NOT REGULATED
<u>IATA</u>	NOT REGULATED
<u>IMDG</u>	NOT REGULATED

**15. Regulatory Information**

**15.1. International Inventories**

<b>TSCA</b>	Complies
<b>DSL/NDSL</b>	Does not comply
<b>ENCS</b>	Does not comply
<b>IECSC</b>	Does not comply
<b>KECL</b>	Does not comply
<b>PICCS</b>	Does not comply
<b>AICS</b>	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



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### 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

Chemical name	SARA 313 - Threshold Values %
2-(2-Butoxyethoxy)ethanol - 112-34-5	1.0

#### 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

Chemical name	California Proposition 65
Formaldehyde - 50-00-0	Carcinogen
Perfluorooctanoic acid - 335-67-1	Developmental Toxicity
Methylene chloride - 75-09-2	Carcinogen
1,3-Dichloropropene - 542-75-6	Carcinogen

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

Chemical name	New Jersey	Massachusetts	Pennsylvania
2-(2-Butoxyethoxy)ethanol 112-34-5	X	-	X
1,2-Propanediol 57-55-6	X	-	X
n-Butanol 71-36-3	X	X	X
Hexamethylenetetramine 100-97-0	X	-	-
Methylene chloride 75-09-2	X	X	X
1,3-Dichloropropene 542-75-6	X	X	X

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



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<u>NFPA</u>	Health Hazards 2	Flammability 0	Instability 0	Physical and chemical properties *
<u>HMIS</u>	Health Hazards 2	Flammability 0	Physical Hazards 0	Personal Protection X

Revision date 17-Jan-2019

Revision note SDS sections updated, 2, 3, 11.

**Disclaimer**

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