



Safety Data Sheet

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

Product name ANSULITE ARC 3% or 6% FREEZE-PROTECTED AR-AFFF CONCENTRATE

1. Identification

1.1. Product Identifier

Product name ANSULITE ARC 3% or 6% FREEZE-PROTECTED AR-AFFF CONCENTRATE

1.2. Other means of identification

Product code 415245
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 800-424-9300 or 703-527-3887

2. Hazards Identification

Classification

OSHA Regulatory Status

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

Acute toxicity - Oral - Category 4

2.2. Label Elements

Signal Word
WARNING

hazard statements

HARMFUL IF SWALLOWED



Precautionary Statements



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Prevention

Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product.

IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.

Disposal

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

2.3. Hazards Not Otherwise Classified (HNOC)

Not Applicable.

2.4. OTHER INFORMATION

Unknown Acute Toxicity 5.91% of the mixture consists of ingredient(s) of unknown toxicity

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-%
Ethylene Glycol	107-21-1	30 - 60
2-(2-Butoxyethoxy)ethanol	112-34-5	5 - 10
Tolyltriazole	29385-43-1	1 - 5

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



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5.1. Suitable Extinguishing Media

Product is extinguishing agent. 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.



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8. Exposure Controls/Personal Protection

8.1. Control Parameters

Exposure guidelines

Chemical name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Ethylene Glycol 107-21-1	Ceiling: 100 mg/m ³ aerosol only	-	-
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 Showers
 Eyewash stations
 Ventilation systems.

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

Physical State	Liquid	Color	Light yellow
Odor	Characteristic		
odor threshold	No data available		

Property	VALUES	Remarks • Method
pH	No data available	
Melting point/freezing point	No data available	
Boiling point / boiling range	> 100 °C / 212 °F	
Flash Point	> 100 °C / > 212 °F	
Evaporation Rate	No data available	
flammability (solid, gas)	No data available	



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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
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

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 (NOx). Oxides of sulfur. Fluorinated oxides.

11. Toxicological Information

11.1. Information on Likely Routes of Exposure

Product information	no data available
INHALATION	no data available.
Eye Contact	no data available.



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Skin contact no data available.

INGESTION no data available.

Acute Toxicity

Chemical name	Oral LD50	dermal LD50	Inhalation LC50
Ethylene Glycol 107-21-1	= 4000 mg/kg (Rat)	= 9530 µL/kg (Rabbit)	-
2-(2-Butoxyethoxy)ethanol 112-34-5	= 3384 mg/kg (Rat)	= 2700 mg/kg (Rabbit)	-
Tolyltriazole 29385-43-1	= 675 mg/kg (Rat)	-	-

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

sensitization No information available.
Germ Cell Mutagenicity No information available
carcinogenicity No information available.
Reproductive Toxicity No information available.
STOT - Single Exposure No information available.
STOT - Repeated Exposure No information available.
Target organ effects Central Nervous System, EYES, Respiratory System, skin.
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) 1052 mg/kg
ATEmix (dermal) 35480 mg/kg

12. Ecological Information

12.1. ecotoxicity

Not classified

0% of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical name	Algae/aquatic plants	Fish	Crustacea
Ethylene Glycol 107-21-1	EC50 96 h 6500 - 13000 mg/L Pseudokirchneriella subcapitata	LC50 96 h = 41000 mg/L Oncorhynchus mykiss LC50 96 h 14 - 18 mL/L Oncorhynchus mykiss static LC50 96 h = 27540 mg/L Lepomis macrochirus static LC50 96 h = 40761 mg/L Oncorhynchus mykiss static LC50 96 h 40000 - 60000 mg/L Pimephales promelas static LC50 96 h = 16000 mg/L Poecilia reticulata static	EC50 48 h = 46300 mg/L Daphnia magna
2-(2-Butoxyethoxy)ethanol 112-34-5	EC50 96 h > 100 mg/L Desmodesmus subspicatus	LC50 96 h = 1300 mg/L Lepomis macrochirus static	EC50 24 h = 2850 mg/L Daphnia magna EC50 48 h > 100 mg/L Daphnia magna
Sodium Hydrogen Carbonate 144-55-8	EC50 120 h = 650 mg/L Nitzschia linearis	LC50 96 h 8250 - 9000 mg/L Lepomis macrochirus static	EC50 48 h = 2350 mg/L Daphnia magna



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2-Methyl-2,4-pentanediol 107-41-5	-	LC50 96 h 10500 - 11000 mg/L Pimephales promelas flow-through LC50 96 h = 10000 mg/L Lepomis macrochirus static LC50 96 h = 8690 mg/L Pimephales promelas flow-through LC50 96 h = 10700 mg/L Pimephales promelas static	EC50 48 h 2700 - 3700 mg/L Daphnia magna
1,2-Propanediol 57-55-6	EC50 96 h = 19000 mg/L Pseudokirchneriella subcapitata	LC50 96 h = 51600 mg/L Oncorhynchus mykiss static LC50 96 h 41 - 47 mg/L Oncorhynchus mykiss static LC50 96 h = 51400 mg/L Pimephales promelas static LC50 96 h = 710 mg/L Pimephales promelas	EC50 48 h > 1000 mg/L Daphnia magna Static EC50 24 h > 10000 mg/L Daphnia magna
Hexamethylenetetramine 100-97-0	-	LC50 96 h 44600 - 55600 mg/L Pimephales promelas flow-through	EC50 48 h 29868 - 43390 mg/L Daphnia magna
Sodium chloride 7647-14-5	-	LC50 96 h 5560 - 6080 mg/L Lepomis macrochirus flow-through LC50 96 h = 12946 mg/L Lepomis macrochirus static LC50 96 h 6020 - 7070 mg/L Pimephales promelas static LC50 96 h = 7050 mg/L Pimephales promelas semi-static LC50 96 h 6420 - 6700 mg/L Pimephales promelas static LC50 96 h 4747 - 7824 mg/L Oncorhynchus mykiss flow-through	EC50 48 h = 1000 mg/L Daphnia magna EC50 48 h 340.7 - 469.2 mg/L Daphnia magna Static
n-Butanol 71-36-3	EC50 72 h > 500 mg/L Desmodesmus subspicatus EC50 96 h > 500 mg/L Desmodesmus subspicatus	LC50 96 h = 1910000 µg/L Pimephales promelas static LC50 96 h 100000 - 500000 µg/L Lepomis macrochirus static LC50 96 h = 1740 mg/L Pimephales promelas flow-through LC50 96 h 1730 - 1910 mg/L Pimephales promelas static	EC50 48 h = 1983 mg/L Daphnia magna EC50 48 h 1897 - 2072 mg/L Daphnia magna Static
t-Butanol 75-65-0	EC50 72 h > 1000 mg/L Desmodesmus subspicatus	LC50 96 h 6130 - 6700 mg/L Pimephales promelas flow-through	EC50 48 h = 933 mg/L Daphnia magna EC50 48 h 4607 - 6577 mg/L Daphnia magna Static
1-Octanol 111-87-5	EC50 48 h = 14 mg/L Desmodesmus subspicatus static	LC50 96 h 11.4 - 12.9 mg/L Pimephales promelas flow-through LC50 96 h = 17.68 mg/L Oncorhynchus mykiss static	EC50 24 h 15 - 26 mg/L Daphnia magna
Methylene chloride 75-09-2	EC50 96 h > 500 mg/L Pseudokirchneriella subcapitata EC50 72 h > 500 mg/L Pseudokirchneriella subcapitata	LC50 96 h 140.8 - 277.8 mg/L Pimephales promelas flow-through LC50 96 h 262 - 855 mg/L Pimephales promelas static LC50 96 h = 193 mg/L Lepomis macrochirus static LC50 96 h = 193 mg/L Lepomis macrochirus flow-through	EC50 48 h 1532 - 1847 mg/L Daphnia magna Static EC50 48 h = 190 mg/L Daphnia magna



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1,3-Dichloropropene 542-75-6	EC50 96 h 2.45 - 6.45 mg/L Pseudokirchneriella subcapitata EC50 72 h 3.12 - 10.5 mg/L Pseudokirchneriella subcapitata	LC50 96 h 1.52 - 2.68 mg/L Pimephales promelas static LC50 96 h 0.211 - 0.271 mg/L Pimephales promelas flow-through LC50 96 h 3.1 - 4.9 mg/L Oncorhynchus mykiss static LC50 96 h = 4.5 mg/L Oncorhynchus mykiss semi-static LC50 96 h = 2 mg/L Oncorhynchus mykiss LC50 96 h 5.1 - 6.8 mg/L Lepomis macrochirus static	EC50 48 h 0.063 - 0.129 mg/L Daphnia magna Static EC50 48 h = 0.09 mg/L Daphnia magna
Formaldehyde 50-00-0	-	LC50 96 h 22.6 - 25.7 mg/L Pimephales promelas flow-through LC50 96 h = 1510 µg/L Lepomis macrochirus static LC50 96 h = 41 mg/L Brachydanio rerio static LC50 96 h 0.032 - 0.226 mL/L Oncorhynchus mykiss flow-through LC50 96 h 100 - 136 mg/L Oncorhynchus mykiss static LC50 96 h 23.2 - 29.7 mg/L Pimephales promelas static	LC50 48 h = 2 mg/L Daphnia magna EC50 48 h 11.3 - 18 mg/L Daphnia magna Static

12.2. Persistence and Degradability

No information available.

12.3. Bioaccumulation

No information available.

Chemical name	Partition coefficient
Ethylene Glycol 107-21-1	-1.93

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



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MEX NOT REGULATED
ICAO (air) NOT REGULATED
IATA NOT REGULATED
IMDG NOT REGULATED

15. Regulatory Information

15.1. International Inventories

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

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

Chemical name	SARA 313 - Threshold Values %
Ethylene Glycol - 107-21-1	1.0
2-(2-Butoxyethoxy)ethanol - 112-34-5	1.0

SARA 311/312 Hazard Categories

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

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
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Ethylene Glycol 107-21-1	5000 lb	-	RQ 5000 lb final RQ RQ 2270 kg final RQ
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15.3. US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals

Chemical name	California Proposition 65
Methylene chloride - 75-09-2	Carcinogen
1,3-Dichloropropene - 542-75-6	Carcinogen
Formaldehyde - 50-00-0	Carcinogen

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Ethylene Glycol 107-21-1	X	X	X
2-(2-Butoxyethoxy)ethanol 112-34-5	X	-	X
t-Butanol 75-65-0	X	X	X
1-Octanol 111-87-5	-	-	X
Methylene chloride 75-09-2	X	X	X
1,3-Dichloropropene 542-75-6	X	X	X
Formaldehyde 50-00-0	X	X	X

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

<u>NFPA</u>	Health Hazards 2	flammability 1	Instability 0	Physical and chemical properties -
<u>HMIS</u>	Health Hazards 2	flammability 1	Physical Hazards 0	Personal Protection X

Revision date 25-May-2015

Revision note

No information available

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