



Revision date 08-Jan-2026

# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:  
US OSHA Hazard Communication Standard (29 CFR 1910.1200)

Revision Number 4

## 1. Identification

### Product identifier

**Product name** ANSUL NFF-332 3x3 AR-SFFF

### Other means of identification

**Product code** A16382TDYJ

**Synonyms** None

### Recommended use of the chemical and restrictions on use

**Recommended use** Class A Class B Fire fighting foam

**Uses advised against** Consumer use

### 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

**E-mail** psra@jci.com

**Company Phone Number** Product Stewardship at +1-715-735-7411

**Emergency telephone** CHEMTRAC 001-800-424-9300 or 001-703-527-3887

## 2. Hazard(s) identification

### Classification

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Serious eye damage/eye irritation	Category 2
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### Label elements

#### Signal word

Warning

#### **Hazard Statements**

Causes serious eye irritation

**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling  
Wear eye protection/ face protection

**Precautionary Statements - Response**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
If eye irritation persists: Get medical advice/attention

**Hazards not otherwise classified (HNOC)**

Not applicable

**Other information**

Harmful to aquatic life.

**3. Composition/information on ingredients****Substance**

Not applicable.

**Mixture**

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Chemical name	CAS No.	Weight-%	Trade secret
2-(2-Butoxyethoxy)ethanol	112-34-5	1 - 5	-
Fatty Alcohol Sulfate, TEA-salt	139-96-8	3 - 7	-

\*The exact percentage (concentration) of composition has been withheld as a trade secret.

**4. First-aid measures****Description of first aid measures**

**General advice** Show this safety data sheet to the doctor in attendance.

**Inhalation** Remove to fresh air.



<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.
<b>Skin contact</b>	Wash skin with soap and water.
<b>Ingestion</b>	Rinse mouth. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician.
<b>Self-protection of the first aider</b>	Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).
<b><u>Most important symptoms and effects, both acute and delayed</u></b>	
<b>Symptoms</b>	Irritating. May cause redness and tearing of the eyes.
<b>Effects of Exposure</b>	No information available.
<b><u>Indication of any immediate medical attention and special treatment needed</u></b>	
<b>Note to physicians</b>	Treat symptomatically.

## 5. Fire-fighting measures

<b>Suitable Extinguishing Media</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
<b>Large Fire</b>	No information available.
<b>Unsuitable extinguishing media</b>	Do not scatter spilled material with high pressure water streams.
<b>Specific hazards arising from the chemical</b>	No information available.
<b>Explosion data</b>	
<b>Sensitivity to mechanical impact</b>	None.
<b>Sensitivity to static discharge</b>	None.
<b>Special protective equipment and precautions for fire-fighters</b>	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

<b>Personal precautions</b>	Avoid contact with skin, eyes or clothing. Use personal protective equipment as required.
<b>Other information</b>	Refer to protective measures listed in Sections 7 and 8.
<b>For emergency responders</b>	Use personal protection recommended in Section 8.
<b>Environmental Precautions</b>	
<b>Environmental Precautions</b>	Prevent entry into waterways, sewers, basements or confined areas. Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. See Section 12 for additional Ecological Information.

**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****Precautions for safe handling**

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Do not freeze. Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Keep out of the reach of children.

**8. Exposure controls/personal protection****Control parameters**

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

**Biological occupational exposure limits** This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

**Appropriate engineering controls**

**Engineering controls** Showers  
Eyewash stations  
Ventilation systems.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection** Wear safety glasses with side shields (or goggles).

**Hand protection** Wear suitable gloves.

**Skin and Body Protection** Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact

**Respiratory Protection** In case of insufficient ventilation, wear suitable respiratory equipment Wear a respirator conforming to EN 140 with Type A filter or better

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

<b>General hygiene considerations</b>	Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product.
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## 9. Physical and chemical properties

### Information on basic physical and chemical properties

<b>Physical state</b>	Liquid
<b>Appearance</b>	Turbid
<b>Color</b>	pale yellow
<b>Odor</b>	Slight sweetness - surfactant
<b>Odor threshold</b>	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
<b>pH</b>	7-8	None known
<b>pH (as aqueous solution)</b>		None known
<b>Melting point / freezing point</b>	-4 °C / 24.8 °F	None known
<b>Initial boiling point and boiling range</b>	Not applicable	None known
<b>Flash point</b>	Not applicable	None known
<b>Evaporation rate</b>	No data available	None known
<b>Flammability</b>	Not flammable	None known
<b>Flammability Limit in Air</b>		None known
<b>Upper flammability or explosive limits</b>	No data available	
<b>Lower flammability or explosive limits</b>	No data available	
<b>Vapor pressure</b>	No data available	None known
<b>Relative vapor density</b>	No data available	None known
<b>Relative density</b>	No data available	None known
<b>Water solubility</b>	Soluble in water	None known
<b>Solubility(ies)</b>	No data available	None known
<b>Partition coefficient</b>	No data available	None known
<b>Autoignition temperature</b>	No data available	None known
<b>Decomposition temperature</b>		None known
<b>Kinematic viscosity</b>	No data available	None known
<b>Dynamic viscosity</b>	2000 - 3000 mPa s	None known

### Other information

<b>Explosive properties</b>	Not Explosive
<b>Oxidizing properties</b>	Not Oxidizing
<b>Softening point</b>	No information available
<b>Molecular weight</b>	No information available
<b>VOC content</b>	No information available
<b>Liquid Density</b>	No information available
<b>Refractive Index</b>	1.3976-1.4176
<b>Bulk density</b>	1.13 g/ml

## 10. Stability and reactivity

<b>Reactivity</b>	Not reactive.
<b>Chemical stability</b>	Stable under normal conditions.
<b>Possibility of hazardous reactions</b>	None under normal processing.
<b>Conditions to avoid</b>	Extremes of temperature and direct sunlight.



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

**Hazardous decomposition products** Carbon oxides.

## 11. Toxicological information

### Information on likely routes of exposure

#### **Product Information**

<b>Inhalation</b>	Specific test data for the substance or mixture is not available.
<b>Eye contact</b>	Causes serious eye irritation. May cause redness, itching, and pain.
<b>Skin contact</b>	Non Corrosive.
<b>Ingestion</b>	Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

### Symptoms related to the physical, chemical and toxicological characteristics

<b>Symptoms</b>	May cause redness and tearing of the eyes. Prolonged contact may cause redness and irritation.
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### Acute toxicity

#### **Product information**

Method	species	Exposure Route	Effective dose	Exposure time	Results
U.S. EPA Health Effects Test Guidelines, OPPTS 870.1100, Acute Oral Toxicity	Rat	oral	>5000 mg/kg		LD50 >5000 mg/kg (Data taken from similar finished product)

#### **Numerical measures of toxicity**

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

ATEmix (oral)	21,314.40 mg/kg
ATEmix (dermal)	22,865.80 mg/kg

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
2-(2-Butoxyethoxy)ethanol 112-34-5	= 5660 mg/kg ( Rat )	= 2700 mg/kg ( Rabbit )	-

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

**Skin corrosion/irritation** Non Corrosive.

Method	species	Exposure Route	Effective dose	Exposure time	Results
OECD Test No. 431: In Vitro Skin Corrosion: Human Skin Model Test	EpiDerm™	in vitro			non-corrosive

**Serious eye damage/eye irritation** Causes serious eye irritation.

Method	species	Exposure Route	Effective dose	Exposure time	Results

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U.S. EPA Health Effects Test Guidelines, OPPTS 870.2400 , Ocular Irritation	Rabbit	eye		24 hours	Mild eye irritation
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**Respiratory or skin 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** Eyes.**Aspiration hazard** No information available.**Other adverse effects** No information available.**Interactive effects** No information available.

## 12. Ecological information

**Ecotoxicity** Harmful to aquatic life.

Method	Species	Endpoint type	Effective dose	Exposure time	Results
OECD Test No. 203: Fish, Acute Toxicity Test	Oncorhynchus mykiss (rainbow trout)	LC50	32.96 mg/L	96 hours	NOEC: 12.5 mg/l
OECD Test No. 202: Daphnia sp., Acute Immobilization Test	Daphnia magna	EC50	53 mg/L	48 hours	EC50 53 mg/l
OECD Test No. 201: Freshwater Alga and Cyanobacteria, Growth Inhibition Test	Pseudokirchneriella subcapitata	ErC50	78 mg/L	72 hours	ErC50: 78 mg/l
OECD Test No. 209: Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation)	Activated sludge microorganisms	NOEC	50 mg/L		NOEC: 50 mg/l

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
2-(2-Butoxyethoxy)ethan	EC50: >100mg/L (96h,	LC50: =1300mg/L (96h,	-	EC50: >100mg/L (48h,



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ol 112-34-5	Desmodesmus subspicatus)	Lepomis macrochirus)		Daphnia magna)
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**Persistence and degradability** Inherently biodegradable.

Method	Exposure time	VALUE	Results
OECD Test No. 301F: Ready Biodegradability: Manometric Respirometry Test (TG 301 F)	28 days	59.6 %	Inherently biodegradable

**Test Method for BOD and COD:** U.S. EPA SM 5210 B and SM 5220 D.

**Concentrate Biological Oxygen Demand (mg/L)**

Biological Oxygen Demand (5 Day)	363600 mg/L
%BOD/COD	57.77 %
Biological Oxygen Demand (10 Day)	414800 mg/L
%BOD/COD	65.90 %
Biological Oxygen Demand (15 Day)	427200 mg/L
%BOD/COD	67.87 %
Biological Oxygen Demand (20 Day)	435600 mg/L
%BOD/COD	69.21 %
Biological Oxygen Demand (25 Day)	452800 mg/L
%BOD/COD	71.94 %
Biological Oxygen Demand (30 Day)	489200 mg/L
%BOD/COD	77.72 %
Chemical Oxygen Demand (mg/L)	629400 mg/L

**3% Solution Biological Oxygen Demand (mg/L)**

Biological Oxygen Demand (5 Day)	11120 mg/L
%BOD/COD	59.89 %
Biological Oxygen Demand (10 Day)	12680 mg/L
%BOD/COD	68.30 %
Biological Oxygen Demand (15 Day)	12850 mg/L
%BOD/COD	69.21 %
Biological Oxygen Demand (20 Day)	12680 mg/L
%BOD/COD	68.30 %
Biological Oxygen Demand (25 Day)	13740 mg/L
%BOD/COD	74.01 %
Biological Oxygen Demand (30 Day)	14980 mg/L
%BOD/COD	80.68 %
Chemical Oxygen Demand (mg/L)	18565 mg/L

**Bioaccumulation**

There is no data for this product.

Chemical name	Partition coefficient
2-(2-Butoxyethoxy)ethanol 112-34-5	1

**Mobility**

No information available.

**Other adverse effects**

No information available.

**13. Disposal considerations**

**Disposal methods**

<b>Waste from residues/unused products</b>	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
<b>Contaminated packaging</b>	Do not reuse empty containers.

**14. Transport information**

<b>DOT</b>	Not regulated
<b>TDG</b>	Not regulated
<b>MEX</b>	Not regulated
<b>ICAO (air)</b>	Not regulated
<b>IATA</b>	Not regulated
<b>IMDG</b>	Not regulated

**15. Regulatory information****International Inventories**

<b>TSCA</b>	Complies
<b>DSL/NDSL</b>	Complies
<b>EINECS/ELINCS</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>AIIC</b>	Complies
<b>NZIoC</b>	Complies

**Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory

**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**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

**AIIC** - Australian Inventory of Industrial Chemicals

**NZIoC** - New Zealand Inventory of Chemicals

**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



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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**

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

#### **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.

#### **US State Regulations**

##### **California Proposition 65**

This product does not contain any Proposition 65 chemicals.

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

Chemical name	New Jersey	Massachusetts	Pennsylvania
2-(2-Butoxyethoxy)ethanol 112-34-5	X	-	X

#### **U.S. EPA Label Information**

EPA Pesticide Registration Number Not applicable

#### **16. Other information**

<b>NFPA</b>	<b>Health hazards</b> 0	<b>Flammability</b> 0	<b>Instability</b> 0	<b>Special hazards</b> -
<b>HMIS</b>	<b>Health hazards</b> 0	<b>Flammability</b> 0	<b>Physical hazards</b> 0	<b>Personal protection</b> X

#### **Key or legend to abbreviations and acronyms used in the safety data sheet**

##### **Legend Section 8: Exposure controls/personal protection**

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)  
Ceiling Maximum limit value \* Skin designation

#### **Key literature references and sources for data used to compile the SDS**

Agency for Toxic Substances and Disease Registry (ATSDR)

U.S. Environmental Protection Agency ChemView Database

European Food Safety Authority (EFSA)

EPA (Environmental Protection Agency)

Acute Exposure Guideline Level(s) (AEGL(s))

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act



U.S. Environmental Protection Agency High Production Volume Chemicals  
Food Research Journal  
Hazardous Substance Database  
International Uniform Chemical Information Database (IUCLID)  
National Institute of Technology and Evaluation (NITE)  
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
NIOSH (National Institute for Occupational Safety and Health)  
National Library of Medicine's ChemID Plus (NLM CIP)  
National Library of Medicine's PubMed database (NLM PUBMED)  
National Toxicology Program (NTP)  
New Zealand's Chemical Classification and Information Database (CCID)  
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
Organization for Economic Co-operation and Development High Production Volume Chemicals Program  
Organization for Economic Co-operation and Development Screening Information Data Set  
World Health Organization

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**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**