



3% AFFF Foam Concentrate

Chemguard 3% AFFF is a specially formulated, synthetic, aqueous film forming foam concentrate. A vapor suppressing aqueous film is formed by the foam solution draining from the expanded foam blanket. It is intended for use at a proportioning rate of 3% (3 parts AFFF concentrate to 97 parts water) on Class B hydrocarbon type fuels such as gasoline, kerosene, diesel, etc. Chemguard 3% AFFF is not intended for use on fuels, which are polar solvent/water miscible such as alcohols, ketones, esters, etc.

FEATURES

- U.L. Listed, Foam Liquid Concentrates
- U.L. recommended application rate on hydrocarbon type fuels is .10/gpm ft².
- U.L. Canada Listed
- Performance to ICAO, Doc. #9137, Part 1, Chapter 8, Level "B" verified
- Suitable for use with fresh or salt water
- Excellent wetting characteristics when used in combating Class "A" fuel fires
- Suitable for use with both aspirating foam and standard water fog nozzles
- Suitable for use with deluge or closed head foam water sprinkler systems
- If inadvertently frozen, thawing will render product completely serviceable again
- Suitable for use with carbon steel, fiberglass, polyethylene or stainless steel. Chemguard 3% AFFF is not compatible with galvanized pipe or fittings in an undiluted form.
- Suitable for use with siliconized dry chemical extinguishing agents

PROPORTIONING

- Fixed or portable in-line eductors
- In-line balanced pressure and pump pressure proportioning skid

- Bladder tank balanced pressure proportioning systems
- Around the pump proportioners
- Handline, air-aspirating nozzles with fixed eductor pickup tube

DISCHARGE DEVICES

- Foam Chambers
- Air-aspirating and non air-aspirating sprinkler heads or spray nozzles
- Standard water fog nozzles for handlines and monitors
- Air-aspirating foam nozzles
- Foam makers for use with either Floating Roof storage tanks or Dike/Bund protection systems
- High back pressure foam makers for sub-surface base injection system (hydrocarbon type fuels only)

APPLICATIONS

- Crash Fire Rescue
- Storage Tanks(non-polar solvent type fuels only)
- Truck/Rail Loading or Unloading Facilities
- Processing/Storage Facilities
- Docks/Marine Tankers
- Flammable Liquid Containment Areas
- Mobile Equipment

FOAMING PROPERTIES

Aspirating type discharge devices typically generate expansion ratios between 6-10 to 1 when 3% AFFF is mixed with water at the correct ratio. Non-aspirating type devices will typically generate expansion ratios of between 2-4 to 1. Expansion ratios are dictated by the type of discharge devices, flow rate and discharge pressure.

TYPICAL PROPERTIES AT 77°F (25°C)

Appearance.....Clear Slightly Yellow
Specific Gravity.....1.020
pH.....7.7
Viscosity.....1.5 cps

ENVIRONMENTAL IMPACT

Chemguard 3% AFFF is biodegradable, low in toxicity and can be treated in sewage treatment plants. Please refer to Chemguard Technical Bulletin regarding foam products and the environment.

STORAGE

If kept in the original unopened and airtight Chemguard supplied container and stored within the temperature range of 35°F-120°F (2°C - 49°C) a shelf life of between 20-25 years can be expected. When stored in other than the manufacturers supplied container, please check with Chemguard for storage guidelines.

ORDERING INFORMATION & WEIGHT

Part No:	Container	Weight
C303P	5-Gallon Pail / 19 Liters	45 lbs.
C303D	55-Gallon Drum / 208 Liters	495 lbs.
C303BD	330-Gallon Tote / 1249 Liters	3000 lbs.

CHEMGUARD

204 S. 6th Ave • Mansfield, Tx 76063 • (817) 473-9964 • FAX (817) 473-0606

www.chemguard.com

MATERIAL SAFETY **DATA SHEET**

CHEMGUARD 3% AFFF C-303

Revision Date: 1/25/2006

1. PRODUCT IDENTIFICATION

Chemical Family: Surfactant mixture; fire fighting foam concentrate
Aqueous Film Forming Foam

Product name: Chemguard 3% AFFF C-303

Manufacturer: Chemguard, Inc.
204 South 6th Ave.
Mansfield, TX 76063
emergency phone: 817-473-9964

2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>CAS NO.</u>	<u>Common Name</u>	<u>ACGIH/PPM</u>		<u>OSHA/PPM</u>	<u>% by wt</u>
		<u>TWA</u>	<u>STEL</u>	<u>PEL</u>	
7732-18-5	water				85% - 90%
57018-52-7	propylene glycol t-butyl ether	not established			2% - 4%
7487-88-9	magnesium sulfate	N/A	N/A	N/A	1% - 2%
proprietary mixture	proprietary hydrocarbon surfactant	N/A	N/A	N/A	proprietary
proprietary mixture	proprietary fluorosurfactant	N/A	N/A	N/A	proprietary

3. HAZARDS IDENTIFICATION

Routes of entry: Dermal, inhalation and ingestion

Potential Health Effects: May cause skin and eye irritation.

Carcinogenicity: Not a carcinogen.

4. FIRST AID MEASURES

Ingestion: Do not induce vomiting. Call a physician.

Inhalation: Remove to fresh air.

Skin: Rinse with water. Wash with soap and water. Contaminated clothing should be washed before re-use.

Eyes: Rinse with water. Call a physician.

5. FIRE FIGHTING MEASURES

Flash Point: >150°F
Flammable Limits in air (lower % by volume): not evaluated
Flammable Limits in air (upper % by volume): not evaluated
Auto-ignition Temperature: not evaluated

General Hazards: None known.

Fire Fighting Equipment: Self contained breathing apparatus

Fire Extinguishing Media: Water, Foam, Carbon Dioxide, Dry Chemical, Halon

Fire and Explosion Hazards: Decomposition products may be toxic.

Hazardous Combustion Products: oxides of nitrogen, sulfur and carbon

6. ACCIDENTAL RELEASE

Contain spills. Vacuum or pump into storage containers, absorb smaller quantities with absorbent materials, and dispose of properly. Washing area with water will create large amounts of foam.

Dispose of released and contained material in accordance with local, state, and federal regulations. Release to local waste treatment plant only with permission.

7. HANDLING AND STORAGE

Store in original container, or appropriate end-use device. Store at temperatures of 35 - 120 degrees F. If the material freezes, it may be thawed without loss of performance.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Eye Protection: Wear side-shield safety glasses.

Skin Protection: Wear latex gloves.

Respiratory Protection: Use organic vapor respirator if needed.

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point: 205° - 212°F
Melting Point: 30° F
Specific Gravity: 1.012 g/ml
Vapor Pressure (mm Hg): N/A
pH: 7.0 - 8.5
Flash Point (PMCC): >150°F
Vapor Density (air = 1) N/A
Solubility in water: 100%
Appearance: clear amber liquid
Odor: slight solvent odor

10. STABILITY AND REACTIVITY

Stability: Stable

Incompatibility: Strong oxidizers

Hazardous Polymerization: Will not occur.

Decomposition Products: Oxides of nitrogen, sulfur, carbon.

11. TOXICOLOGICAL INFORMATION

Eye Irritation: (Rabbits) mild irritant

Skin Irritation: (Rabbits) minimal irritant

Inhalation Toxicity: not evaluated

Sensitization: not evaluated

Teratology: not evaluated

Mutagenicity: not evaluated

Reproduction: not evaluated

Acute Oral Effects (Rats): not evaluated

12. ECOLOGICAL INFORMATION

	<u>CONCENTRATE</u>	<u>SOLUTION (AS USED)</u>
Chemical Oxygen Demand:	210,000 mg/l	6,300 mg/l
Biological Oxygen Demand (20 day):	79,800 mg/l	2,394 mg/l
Biodegradability (B.O.D./C.O.D.)	38%	38%
Total Organic Carbon:	33,600 mg/l	1008 mg/l
LC50 (96 hour pimephales promelas)	233 ppm	7767 ppm
LC50 (48 hour, daphnia magna)	1110 ppm	37,000 ppm

13. DISPOSAL CONSIDERATIONS

Dispose in accordance with local, state, and federal regulations. Discharge to waste treatment plants only with permission. Anti-foam agents may be used to reduce foaming in waste streams.

14. TRANSPORTATION INFORMATION

Department of Transportation proper shipping name: not regulated

15. REGULATORY INFORMATION

All ingredients are on the TSCA inventory.

No components are reportable under SARA Title III, sec. 313

No components are priority pollutants listed under the U.S. Clean Water Act Section 307 (2)(1)
Priority Pollutant List (40 CFR 401.15).

No components are reportable under CERCLA.

16. OTHER INFORMATION

NFPA Hazard Ratings

1	Health Hazard Rating
1	Flammability Rating
0	Instability/Reactivity Rating

HMIS Identification System

1
1
0

Revision 2 - Revision date changed.

MATERIAL SAFETY **DATA SHEET**

CHEMGUARD 3% AFFF C-303

Revision Date: 1/25/2006

1. PRODUCT IDENTIFICATION

Chemical Family: Surfactant mixture; fire fighting foam concentrate
Aqueous Film Forming Foam

Product name: Chemguard 3% AFFF C-303

Manufacturer: Chemguard, Inc.
204 South 6th Ave.
Mansfield, TX 76063
emergency phone: 817-473-9964

2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>CAS NO.</u>	<u>Common Name</u>	<u>ACGIH/PPM</u>		<u>OSHA/PPM</u>	<u>% by wt</u>
		<u>TWA</u>	<u>STEL</u>	<u>PEL</u>	
7732-18-5	water				85% - 90%
57018-52-7	propylene glycol t-butyl ether	not established			2% - 4%
7487-88-9	magnesium sulfate	N/A	N/A	N/A	1% - 2%
proprietary mixture	proprietary hydrocarbon surfactant	N/A	N/A	N/A	proprietary
proprietary mixture	proprietary fluorosurfactant	N/A	N/A	N/A	proprietary

3. HAZARDS IDENTIFICATION

Routes of entry: Dermal, inhalation and ingestion

Potential Health Effects: May cause skin and eye irritation.

Carcinogenicity: Not a carcinogen.

4. FIRST AID MEASURES

Ingestion: Do not induce vomiting. Call a physician.

Inhalation: Remove to fresh air.

Skin: Rinse with water. Wash with soap and water. Contaminated clothing should be washed before re-use.

Eyes: Rinse with water. Call a physician.

5. FIRE FIGHTING MEASURES

Flash Point: >150°F
Flammable Limits in air (lower % by volume): not evaluated
Flammable Limits in air (upper % by volume): not evaluated
Auto-ignition Temperature: not evaluated

General Hazards: None known.

Fire Fighting Equipment: Self contained breathing apparatus

Fire Extinguishing Media: Water, Foam, Carbon Dioxide, Dry Chemical, Halon

Fire and Explosion Hazards: Decomposition products may be toxic.

Hazardous Combustion Products: oxides of nitrogen, sulfur and carbon

6. ACCIDENTAL RELEASE

Contain spills. Vacuum or pump into storage containers, absorb smaller quantities with absorbent materials, and dispose of properly. Washing area with water will create large amounts of foam.

Dispose of released and contained material in accordance with local, state, and federal regulations. Release to local waste treatment plant only with permission.

7. HANDLING AND STORAGE

Store in original container, or appropriate end-use device. Store at temperatures of 35 - 120 degrees F. If the material freezes, it may be thawed without loss of performance.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Eye Protection: Wear side-shield safety glasses.

Skin Protection: Wear latex gloves.

Respiratory Protection: Use organic vapor respirator if needed.

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point: 205° - 212°F
Melting Point: 30° F
Specific Gravity: 1.012 g/ml
Vapor Pressure (mm Hg): N/A
pH: 7.0 - 8.5
Flash Point (PMCC): >150°F
Vapor Density (air = 1) N/A
Solubility in water: 100%
Appearance: clear amber liquid
Odor: slight solvent odor

10. STABILITY AND REACTIVITY

Stability: Stable

Incompatibility: Strong oxidizers

Hazardous Polymerization: Will not occur.

Decomposition Products: Oxides of nitrogen, sulfur, carbon.

11. TOXICOLOGICAL INFORMATION

Eye Irritation: (Rabbits) mild irritant

Skin Irritation: (Rabbits) minimal irritant

Inhalation Toxicity: not evaluated

Sensitization: not evaluated

Teratology: not evaluated

Mutagenicity: not evaluated

Reproduction: not evaluated

Acute Oral Effects (Rats): not evaluated

12. ECOLOGICAL INFORMATION

	<u>CONCENTRATE</u>	<u>SOLUTION (AS USED)</u>
Chemical Oxygen Demand:	210,000 mg/l	6,300 mg/l
Biological Oxygen Demand (20 day):	79,800 mg/l	2,394 mg/l
Biodegradability (B.O.D./C.O.D.)	38%	38%
Total Organic Carbon:	33,600 mg/l	1008 mg/l
LC50 (96 hour pimephales promelas)	233 ppm	7767 ppm
LC50 (48 hour, daphnia magna)	1110 ppm	37,000 ppm

13. DISPOSAL CONSIDERATIONS

Dispose in accordance with local, state, and federal regulations. Discharge to waste treatment plants only with permission. Anti-foam agents may be used to reduce foaming in waste streams.

14. TRANSPORTATION INFORMATION

Department of Transportation proper shipping name: not regulated

15. REGULATORY INFORMATION

All ingredients are on the TSCA inventory.

No components are reportable under SARA Title III, sec. 313

No components are priority pollutants listed under the U.S. Clean Water Act Section 307 (2)(1)
Priority Pollutant List (40 CFR 401.15).

No components are reportable under CERCLA.

16. OTHER INFORMATION

NFPA Hazard Ratings

1	Health Hazard Rating
1	Flammability Rating
0	Instability/Reactivity Rating

HMIS Identification System

1
1
0

Revision 2 - Revision date changed.