
1. IDENTIFICATION

Product Name

Hi-Combat®A
Class “A” Foam Concentrate

Recommended use of the chemical and restrictions on use

Identified uses

Firefighting Foam Concentrate

Restrictions on Use

Consult applicable fire protection codes

Company Identification

Angus Fire
141 Junny Road
Angier, NC 27501

Customer Information Number

(919) 331-6100

Emergency Telephone Number

Infotrac at (800) 535-5053

Issue Date

July 18, 2019

Supersedes Date

July 27, 2018

Safety Data Sheet prepared in accordance with OSHA’s Hazard Communication Standard (29 CFR 1910.1200, the Canadian Hazardous Products Regulations (HPR) and the Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

2. HAZARD IDENTIFICATION

Hazard Classification

Eye Damage/Irritation – Category 1

Label Elements

Hazard Symbols



Signal Word: Danger

Hazard Statements

Causes serious eye damage.

Precautionary Statements

Prevention

Wear eye protection and face protection.

Response

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.

Storage

None

Disposal

None

Other Hazards

None identified.



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2. HAZARD IDENTIFICATION

Specific Concentration Limits

The values listed below represent the percentages of ingredients of unknown toxicity.

Acute oral toxicity	10 - 20%
Acute dermal toxicity	20 - 30%
Acute inhalation toxicity	35 - 45%
Acute aquatic toxicity	25 - 35%

3. COMPOSITION/INFORMATION ON INGREDIENTS

This product is a mixture.

Component	CAS Number	Concentration
Sodium decyl sulfate	142-87-0	10 - 20%*
Sodium alkyl ether sulfate	68585-34-2	7 - 13%*
Dipropylene Glycol Monomethyl Ether	34590-94-8	1 - 5%*
Methanol	67-56-1	0.05 – <0.12%

*Exact concentration withheld as trade secret.

4. FIRST-AID MEASURES

Description of necessary first-aid measures

Eyes

Immediately flood the eye with plenty of water for at least 15 minutes, holding the eye open. Obtain medical attention if soreness or redness persists.

Skin

Wash skin thoroughly with soap and water. Obtain medical attention if irritation persists.

Ingestion

Dilute by drinking large quantities of water and obtain medical attention.

Inhalation

Move victim to fresh air. Obtain medical attention immediately for any breathing difficulty.

Most important symptoms/effects, acute and delayed

Aside from the information found under Description of necessary first aid measures (above) and Indication of immediate medical attention and special treatment needed, no additional symptoms and effects are anticipated.

Indication of immediate medical attention and special treatment needed

Notes to Physicians

Treat symptomatically.

5. FIRE - FIGHTING MEASURES

Suitable Extinguishing Media

This preparation is used as an extinguishing agent and therefore is not a problem when trying to control a fire. Use extinguishing agent appropriate to other materials involved.

Specific hazards arising from the chemical

None known



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5. FIRE - FIGHTING MEASURES

Special Protective Actions for Fire-Fighters

Wear full protective clothing and self-contained breathing apparatus as appropriate for specific fire conditions.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Wear appropriate protective clothing. Prevent skin and eye contact.

Environmental Precautions

Prevent large quantities of the material from entering drains or watercourses.

Methods and materials for containment and cleaning up

Contain and absorb using appropriate inert material and transfer into suitable containers for recovery or disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Wear appropriate protective clothing. Prevent skin and eye contact.

Conditions for safe storage

Store in original containers between 20°F and 120°F (-7°C and 49°C). Storage area should be: - cool - dry - well ventilated - under cover - out of direct sunlight

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits are listed below, if they exist.

Dipropylene Glycol Monomethyl Ether

ACGIH TLV: 100 ppm (606 mg/m³) 8hr TWA; 15 min STEL 150 ppm (909 mg/m³); Danger of cutaneous absorption.

OSHA PEL: 100 ppm (600 mg/m³) Danger of cutaneous absorption.

Sodium decyl sulfate

None established

Sodium alkyl ether sulfate

None established

Methanol

ACGIH TLV: 200ppm (262 mg/m³) 8h TWA; 250ppm (328 mg/m³)15-minute STEL. Danger of cutaneous absorption.

OSHA: 200ppm (260 mg/m³) 8h TWA.

Appropriate engineering controls

Use with adequate ventilation. If this product is used in a pressurized system, there should be local procedures for the selection, training, inspection and maintenance of this equipment. When used in large volumes, use local exhaust ventilation.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Individual protection measures**Respiratory Protection**

Wear respiratory protection if there is a risk of exposure to high vapor concentrations, aerosols or if applied to hot surfaces. A NIOSH approved full face respirator may be worn. The specific respirator selected must be based on the airborne concentration found in the workplace and must not exceed the working limits of the respirator.

Skin Protection

Gloves

Eye/Face Protection

Chemical goggles or safety glasses with side shields.

Body Protection

Normal work wear.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical State	Liquid
Color	Pale green
Odor	Mild, pleasant
Odor Threshold	No data available
pH	9.0
Specific Gravity	1.05
Boiling Range/Point (°C/F)	No data available
Melting Point (°C/F)	No data available
Flash Point (°C/F)	>200°F
Vapor Pressure	No data available
Evaporation Rate (BuAc=1)	No data available
Solubility in Water	Soluble
Vapor Density (Air = 1)	Not applicable
VOC (%)	No data available
Partition coefficient (n-octanol/water)	No data available
Viscosity	No data available
Auto-ignition Temperature	Not applicable
Decomposition Temperature	No data available
Upper explosive limit	Not applicable
Lower explosive limit	Not applicable
Flammability (solid, gas)	Not applicable

10. STABILITY AND REACTIVITY

Reactivity

No data available.

Chemical Stability

Stable under normal conditions.

Possibility of hazardous reactions

Hazardous polymerization will not occur.

Conditions to Avoid

Contact with incompatible materials



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10. STABILITY AND REACTIVITY

Incompatible Materials

Water reactive materials – burning metals – electronically energized equipment

Hazardous Decomposition Products

Oxides of carbon – alkyl mercaptans – sulfides – sulfur oxides – sodium oxides

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Hi-Combat® A Concentrate

Oral LD50 (rat) >5000 mg/kg

Dermal LD50 (rabbit) >2000 mg/kg

Hi-Combat® A Mixed Fire Chemical

Oral LD50 (rat) >5000 mg/kg

Dermal LD50 (rabbit) >2000 mg/kg

Specific Target Organ Toxicity (STOT) – single exposure

No relevant studies identified.

Specific Target Organ Toxicity (STOT) – repeat exposure

No relevant studies identified.

Serious Eye damage/Irritation

Hi-Combat® A

Primary Eye Irritation (rabbit, unwashed eyes): EPA Toxicity Category I - Corrosive

Primary Eye Irritation (rabbit, washed eyes): EPA Toxicity Category III - Moderately irritating

Hi-Combat® A Mixed Fire Chemical

Primary Eye Irritation (rabbit, unwashed eyes): EPA Toxicity Category IV - Minimally irritating

Primary Eye Irritation (rabbit, washed eyes): EPA Toxicity Category IV - Practically non-irritating

Skin Corrosion/Irritation

Hi-Combat® A Concentrate

Primary Dermal Irritation (rabbit): EPA Toxicity Category IV – Slightly Irritating

Hi-Combat® A Mixed Fire Chemical

Primary Dermal Irritation (rabbit): EPA Toxicity Category IV – Non-irritating

Respiratory or Skin Sensitization

No relevant studies identified.

Carcinogenicity

Not considered carcinogenic by NTP, IARC, and OSHA.

Germ Cell Mutagenicity

No relevant studies identified.

Reproductive Toxicity

Methanol: Some teratogenic and fetotoxic effects were observed in animal studies but are inconclusive.

Aspiration Hazard

Not an aspiration hazard.



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12. ECOLOGICAL INFORMATION

Ecotoxicity

Hi-Combat® A Concentrate: LC50 Rainbow trout 28 mg/l 96h

Mobility in soil

No relevant studies identified.

Persistence/Degradability

Hi-Combat® A Concentrate

BOD₅: 389,000 mg/kg

COD: 782,000 mg/kg

Hi-Combat® A - 0.5% Solution

BOD₅: 2,140 mg/kg

COD: 3,900 mg/kg

Hi-Combat® A - 1% Solution

BOD₅: 4,220 mg/kg

COD: 7,960 mg/kg

This product meets the criteria for Readily Biodegradable when tested in accordance to EPA OPPTS 835-3110, Section 0, Ready Biodegradability (greater than 60% biodegradation in 28 days)

Bioaccumulative Potential

No relevant studies identified.

Other adverse effects

No relevant studies identified.

13. DISPOSAL CONSIDERATIONS

Disposal Methods

This product, as sold, is not a RCRA-listed waste or hazardous waste as characterized by 40 CFR 261. However, state and local requirements for waste disposal may be more restrictive or otherwise different from federal regulations. Therefore, applicable local and state regulatory agencies should be contacted regarding disposal of waste foam concentrate or foam/foam solution.

Concentrate

Prevent foam concentrate from entering ground water, surface water or storm drains. Small quantities of foam concentrate may be collected on absorbents which can then be disposed of. Disposal should be made in accordance with local, state and federal regulations.

Foam/Foam Solution

Prevent foam/foam solution from entering ground water, surface water or storm drains. Small quantities of foam solution may be collected on absorbents which can then be disposed of. Disposal should be made in accordance with local, state and federal regulations.

NOTE: Please consult Angus Fire for additional information regarding the disposal of foam concentrates and foam solutions.

14. TRANSPORT INFORMATION

Shipping Information

Shipping Description

National Motor Freight Code

Fire Extinguisher Charges or Compounds N.O.I., Class 70

69160 Sub 0

This information is not intended to convey all transportation classifications that may apply to this product. Classifications may vary by container volume and by regional regulations. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules when transporting this material.



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15. REGULATORY INFORMATION

United States TSCA Inventory

All components of this product are in compliance with the inventory listing requirements of the US Toxic Substance Control Act (TSCA) Chemical Substance Inventory.

Canada DSL Inventory

All ingredients in this product have been verified for listing on the Domestic Substance List (DSL) or the Non-Domestic Substance List (NDSL).

SARA Title III Sect. 311/312 Categorization

Serious eye damage

SARA Title III Sect. 313

This product does not contain any chemicals that are listed in Section 313 at or above de minimis concentrations.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

None

California Proposition 65



WARNING: This product can expose you to chemicals including formaldehyde, 1,4 dioxane and ethylene oxide, which are known to the State of California to cause cancer, and ethylene oxide and methanol, which are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

16. OTHER INFORMATION

NFPA Ratings

NFPA Code for Health - 2
NFPA Code for Flammability - 0
NFPA Code for Reactivity - 0
NFPA Code for Special Hazards - None

Legend

ACGIH: American Conference of Governmental Industrial Hygienists
BOD₅: Biochemical Oxygen Demand (5 day)
CAS#: Chemical Abstracts Service Number
COD: Chemical Oxygen Demand
EC50: Effect Concentration 50%
IARC: International Agency for Research on Cancer
LC50: Lethal Concentration 50%
LD50: Lethal Dose 50%
N/A: Denotes no applicable information found or available
OSHA: Occupational Safety and Health Administration
PEL: Permissible Exposure Limit
RQ: Reportable Quantity
STEL: Short Term Exposure Limit
N/A: Denotes no applicable information found or available
OSHA: Occupational Safety and Health Administration
PEL: Permissible Exposure Limit
RQ: Reportable Quantity
STEL: Short Term Exposure Limit
TLV: Threshold Limit Value
TSCA: Toxic Substance Control Act



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16. OTHER INFORMATION

Revision Date: July 18, 2019
Replaces: July 27, 2018
Changes made: Changes to sections 8 and 15.

Information Source and References

This SDS is prepared by Hazard Communication Specialists based on information provided by internal company references.

Prepared By: EnviroNet LLC.

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