



Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 05/22/2024

Reviewed on 05/22/2024

* 1 Identification

Product Identifier

Trade Name: Buckeye AFFF 3% Low Temperature AFFF (BFC-3LT)

Relevant identified uses of the substance or mixture and uses advised against:

Fire suppression, not for human or animal drug use

Product Description: Lo-Temp AFFF Concentrate, Aqueous Film Forming Foam

Details of the Supplier of the Safety Data Sheet:

Manufacturer/Supplier:

Buckeye Fire Equipment Company

110 Kings Road

Kings Mountain, NC 28086

P: 704-739-7415

www.buckeyefire.com

bfec@buckeyef.com

Emergency telephone number:

CHEMTREC, 24 hours

Within USA and Canada: 1-800-424-9300

Outside USA and Canada: +1-703-527-3887 (collect calls accepted)

2 Hazard(s) Identification

Classification of the substance or mixture:

Eye Irritation 2B H320 Causes eye irritation.

Label elements:

Hazard pictograms: Non-Regulated Material

Signal word: Warning

Hazard statements:

H320 Causes eye irritation.

Precautionary statements:

P264+P265 Wash thoroughly after handling. Do not touch eyes.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P317 If eye irritation persists: Get medical help.

Unknown acute toxicity:

This value refers to knowledge of known, established toxicological or ecotoxicological values. 0 % of the mixture consists of component(s) of unknown toxicity.

Classification system: NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme

NFPA ratings (scale 0 - 4)



Health = 1
Fire = 0
Reactivity = 0

HMIS-ratings (scale 0 - 4)



Health = 1
Fire = 0
Physical Hazard = 0

Hazard(s) not otherwise classified (HNOC): None known



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* 3 Composition/Information on Ingredients

Non-hazardous components:

7732-18-5	Water, distilled water, deionized water	>43%
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Chemical characterization: Substance**Description:** Mixture of substances listed below with non-hazardous additions.**Dangerous Components:**

CAS: 57-55-6 RTECS: TY 2000000	Propylene Glycol	>30%
CAS: 107-41-5 RTECS: SA 0810000	Hexylene Glycol ⚠ Skin Irritation 2, H315; Eye Irritation 2A, H319; Flammable Liquids 4, H227	<15%
	Proprietary mixture of fluorosurfactants, hydro- < 12 N/A carbon surfactants, polysaccharides, and inorganic salts. ⚠ Skin Irritation 2, H315; Eye Irritation 2B, H320	<12%

Additional information:

The exact percentages of the ingredients of this mixture are considered to be proprietary and are withheld in accordance with the provisions of paragraph (i) of §1910.1200 of 29 CFR 1910.1200 Trade Secrets.

Buckeye 3% Low Temperature AFFF does not degrade into nor does it contain PFOS.

4 First-Aid Measures

Description of first aid measures**General information:** If symptoms persist, call a physician.**After inhalation:** In case of unconsciousness place patient stably in the side position for transportation.**After skin contact:**

Wash with plenty of soap and water. If irritation develops or persists, seek medical attention.

After eye contact:

Flush eyes at eye wash station for 15 minutes and repeat until pain-free. If irritation develops or persists or vision changes occur, seek medical attention.

After swallowing:

If victim is conscious and alert, give 2-3 glasses of water to drink. Do not leave victim unattended. Seek immediate medical attention. On the advice of medical personnel, induce vomiting.

If vomiting occurs and the victim is conscious, give additional water to further dilute the chemical. Prevent aspiration of swallowed product by laying victim on side with head lower than their waist.

Information for doctor**Most important symptoms and effects, both acute and delayed:**

Skin contact may aggravate existing chronic skin conditions.

Indication of any immediate medical attention and special treatment needed:

Treat symptomatically.

5 Fire-Fighting Measures

Extinguishing media**Suitable extinguishing agents:**

This product is an extinguishing agent. It is nonflammable and noncombustible.

For safety reasons unsuitable extinguishing agents: No further relevant information.**Special hazards arising from the substance or mixture:**

This product may decompose in fire and release oxides of sulfur and nitrogen (Refer to Section X)

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Advice for firefighters

Special protective equipment for firefighters:

As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear to prevent contact with skin and eyes.

* 6 Accidental Release Measures

Personal precautions, protective equipment and emergency procedures: Not required.

Environmental precautions: Dilute with plenty of water.

Methods and material for containment and cleaning up:

Absorb with liquid-binding material (i.e. sand, diatomite, acid binders, universal binders, sawdust).

Ensure adequate ventilation.

Dispose of the collected material according to regulations.

Reference to other sections:

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

PAC-1:		
57-55-6	Propylene Glycol	30 mg/m ³
107-41-5	Hexylene Glycol	2.3 ppm
PAC-2:		
57-55-6	Propylene Glycol	1,300 mg/m ³
107-41-5	Hexylene Glycol	25 ppm
PAC-3:		
57-55-6	Propylene Glycol	7,900 mg/m ³
107-41-5	Hexylene Glycol	150 ppm

* 7 Handling and Storage

Handling

Precautions for safe handling:

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

Avoid eye, respiratory, and skin exposure. Use the appropriate personal protective equipment when handling. Wash thoroughly after handling (Refer to Section VIII).

Information about protection against explosions and fires: No special measures required.

Conditions for safe storage, including any incompatibilities

Storage

Requirements to be met by storerooms and receptacles:

Product should be stored in its original container or extinguisher. Use in well-ventilated areas. Do not mix with other extinguishing agents.

Information about storage in one common storage facility: Not required.

Further information about storage conditions: Keep receptacle tightly sealed.

Specific end use(s): No further relevant information available.

* 8 Exposure Controls/Personal Protection

Additional information about design of technical systems: No further data; see section 7.

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Control parameters:

Components with occupational exposure limits:

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.

At this time, the remaining constituents have no known exposure limits.

57-55-6 Propylene Glycol	
WEEL	Long-term value: 10 mg/m ³
107-41-5 Hexylene Glycol	
REL	Ceiling limit value: 125 mg/m ³ , 25 ppm
TLV	Short-term value: 10** mg/m ³ , 50* ppm Long-term value: 25* ppm *vapor **inh. fraction, aerosol only

Additional information:

The lists that were valid during the creation of this SDS were used as basis.

Exposure controls:

Personal protective equipment

General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing and wash before reuse.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Breathing equipment:

During the use of this product on fires, exhaust gases and products of incomplete combustion are the main respiratory hazards. In the manufacture of this product, employers and employees must use their collective judgment in determining the on-the-job settings where the use of a respirator is prudent. The need for respiratory protection is not likely for short-term use in well-ventilated areas. Use air-purifying respirators or powered air-purifying respirators with organic vapor and amine cartridges for acute short-term exposures. Long term exposures may require the use of positive pressure supplied air respirators or self-contained breathing apparatus.

Protection of hands:



Protective gloves

Material of gloves: Nitrile rubber, NBR

Penetration time of glove material: Not applicable.

Eye protection:



Tightly sealed goggles

Limitation and supervision of exposure into the environment: None

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* 9 Physical and Chemical Properties

Information on basic physical and chemical properties

General Information

Appearance:**Form:**

Liquid

Color:

Pale yellow

Odor:

Mild, sweet

Odor threshold:

Not determined.

pH-value:

Not determined.

Change in condition

Melting point/Melting range:

Not determined.

Boiling point/Boiling range:

97 °C (206.6 °F)

Flash point:

None

Flammability (solid, gaseous):

Not applicable.

Auto igniting:

Not applicable

Decomposition temperature:

Not determined.

Ignition temperature:

Product is not self-igniting.

Danger of explosion:

Product does not present an explosion hazard.

Explosion limits:

Lower:

Not determined.

Upper:

Not determined.

Vapor pressure:

Not determined.

Density @ 20 °C (68 °F):1.03 g/cm³ (8.5954 lbs/gal)**Relative density:**

Not determined.

Vapor density:

Not determined.

Evaporation rate:

Not determined.

Solubility in / Miscibility with:**Water:**

Fully miscible.

Partition coefficient (n-octanol/water): Not determined.**Viscosity:****Dynamic:**

Not determined.

Kinematic:

Not determined.

Other information:

No further relevant information available.

10 Stability and Reactivity

Reactivity: No further relevant information available.**Chemical stability:** Product is stable under normal conditions.**Thermal decomposition / conditions to be avoided:**

Not known, but oxides of sulfur and nitrogen may be formed.

Possibility of hazardous reactions: No dangerous reactions known.**Conditions to avoid:** No further relevant information available.

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Incompatible materials:

Strong acids, bases, and oxidizers. Reactive metals. Any material reactive with water.

Hazardous decomposition products: No dangerous decomposition products known.

* 11 Toxicological Information

Information on toxicological effects:

Acute toxicity:

LD/LC50 values that are relevant for classification:

57-55-6 Propylene Glycol

Oral	LD50	20,000 mg/kg (Rat)
Dermal	LD50	20,800 mg/kg (rabbit)
Inhalative	LC50/96 hours	52,930 mg/l (Pimephales)
	Intravenous	6,630 mg/kg (mouse)
		6,423 mg/kg (Rat)
		6,500 mg/kg (rabbit)
107-41-5 Hexylene Glycol		
Oral	LD50	3,700 mg/kg (Rat)
Dermal	LD50	8,560 mg/kg (rabbit)

Primary irritant effect:

On the skin: Irritant to skin and mucous membranes.

On the eye: Irritating effect.

Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:

Irritant

Carcinogenic categories:

IARC (International Agency for Research on Cancer):

None of the ingredients are listed.

NTP (National Toxicology Program):

None of the ingredients are listed.

OSHA-Ca (Occupational Safety & Health Administration):

None of the ingredients are listed.

* 12 Ecological Information

Toxicity:

Aquatic toxicity:

57-55-6 Propylene Glycol

EC50	>10,000 mg/l (Daphnia)
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Persistence and degradability: No further relevant information available.

Behavior in environmental systems:

Bioaccumulative potential: No further relevant information available.

Mobility in soil: No further relevant information available.

Additional ecological information:

General notes: Not known to be hazardous to water.



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Results of PBT and vPvB assessment:

PBT: Not applicable.

vPvB: Not applicable.

Other adverse effects: No further relevant information available.

13 Disposal Considerations

Waste treatment methods

Recommendation:

Observe all federal, state and local environmental regulations when disposing of this material.

Uncleaned packaging

Recommendation: Disposal must be made according to official regulations.

Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport Information

UN-Number:

DOT, ADR/ADN, IMDG, IATA Non-Regulated Material

UN proper shipping name:

DOT, ADR/ADN, IMDG, IATA Non-Regulated Material

Transport hazard class(es):

DOT, ADR/ADN, ADN, IMDG, IATA
Class: Non-Regulated Material

Packing group:

DOT, ADR/ADN, IMDG, IATA Non-Regulated Material

Environmental hazards: Not applicable.

Special precautions for user: Not applicable.

Transport in bulk according to Annex II of

MARPOL73/78 and the IBC Code: Not applicable.

UN "Model Regulation": Non-Regulated Material

*15 Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture:

No further relevant information available.

SARA (Superfund Amendments and Reauthorization):

Section 355 (extremely hazardous substances):

None of the ingredients are listed.

Section 313 (Specific toxic chemical listings):

None of the ingredients are listed.

TSCA (Toxic Substances Control Act):

7732-18-5	Water, distilled water, deionized water	ACTIVE
57-55-6	Propylene Glycol	ACTIVE
107-41-5	Hexylene Glycol	ACTIVE

Hazardous Air Pollutants

None of the ingredients are listed.

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None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for females:

None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for males:

None of the ingredients are listed.

Chemicals known to cause developmental toxicity:

None of the ingredients are listed.

New Jersey Right-to-Know List:

57-55-6 Propylene Glycol

107-41-5 Hexylene Glycol

New Jersey Special Hazardous Substance List:

None of the ingredients are listed.

Pennsylvania Right-to-Know List:

57-55-6 Propylene Glycol

107-41-5 Hexylene Glycol

Pennsylvania Special Hazardous Substance List:

None of the ingredients are listed.

Carcinogenic categories:**EPA (Environmental Protection Agency):**

None of the ingredients are listed.

TLV (Threshold Limit Value established by ACGIH):

None of the ingredients are listed.

NIOSH-Ca (National Institute for Occupational Safety and Health):

None of the ingredients are listed.

GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

Hazard pictograms: Non-Regulated Material**Signal word:** Warning**Hazard statements:**

H320 Causes eye irritation.

Precautionary statements:

P264+P265 Wash thoroughly after handling. Do not touch eyes.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P317 If eye irritation persists: Get medical help.

National regulations:

The product is not subject to be labelled according with the prevailing version of the regulations on hazardous substances.

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.**16 Other Information**

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not

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establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

Contact:

Abbreviations and acronyms:

ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road
ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transport Association
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety and Health
OSHA: Occupational Safety & Health Administration
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Flammable Liquids 4: Flammable liquids – Category 4
Skin Irritation 2: Skin corrosion/irritation – Category 2
Eye Irritation 2A: Serious eye damage/eye irritation – Category 2A
Eye Irritation 2B: Serious eye damage/eye irritation – Category 2B

*** Data compared to the previous version altered.**

SDS created by MSDS Authoring Services www.msdsauthoring.com +1-877-204-9106