

MATERIAL SAFETY DATA SHEET

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Trade Name FlameOut™ Fire Suppressor

Relavant identified uses of mixture and uses advised against

Recommended Use: Class A/B Fire Suppressing Agent

Uses advised against: No information available

Manufacturer Amiran BioChemicals, LLC

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SECTION 2 -HAZARD IDENTIFICATION

Classification of the mixture

Eye Irritation (Category 2B)

Label elements

Pictogram



Signal Word Warning

Hazard Statement(s)

H319 Causes eye irritation.

Precautionary statement(s)

P305 + P351+ P338 If IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and continue rinsing.

Other hazards None known

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

CAS-No.	EC-No.	Index-No.	Classification	Concentration
2-Ethylhexanol				
104-76-7	203-234-3		Acute Tox, Dermal 4, Skin Irrit. 2, Eye Damage 1, H312, H315, H318, H335, R21, R36/37, R41	0% - 1.5%
Sodium 2-ethylhexyl sulfate				

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126-92-1			Skin Irrit.2, Eye Irrit. 2, H315, H319, Xi, R36/38	2% - 12%
Alcohols, C6-C12, ethoxylated				
68439-45-2			Eye Irrit. 2, H318, Xi, R41	4% - 18%

For the full text of the H-Statements mentioned in this section, see Section 16.

SECTION 4 - FIRST AID MEASURES

General Advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician if irritation develops.

In case of eye contact

Rinse thoroughly with plenty of water for 15 minutes. Consult a physician if irritation persists.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

SECTION 5 - FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

Further information

Use water spray to cool unopened containers.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal precautions

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

Soak up with inert absorbent material and place in container for disposal according to local regulations.

SECTION 7 - HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapor and mist. Normal measures for preventive fire protection.

Conditions for safe storage

Store in cool place. Keep container tightly closed in a dry well-ventilated place.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand Protection

Handle with gloves. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Eye Protection

Safety goggles or glasses with side-shields conforming to EN 166.

Skin and body protection

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and after handling the product.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	Liquid
Color	Clear to slight yellow

Safety data

pH	8.5 - 9.5
Melting point	No data available
Boiling point	100 C
Flash point	No data available
Ignition temperature	No data available
Lower explosion limit	No data available
Upper explosion limit	No data available
Specific Gravity	1.01 to 1.03 @ 20 C

Water solubility

Completely soluble

SECTION 10- STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Conditions to avoid

No data available.

Materials to avoid

Strong reducing agents, strong acids.

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions - Carbon monoxide and carbon dioxide.

SECTION 11 - TOXICOLOGICAL INFORMATION

Acute Toxicity

No data available

Skin corrosion/irritation

Negligible hazard. Not a primary skin irritant. Liquid is neutral with pH 8. Dermal irritation testing for 72 hours on albino rabbits showed no erythema and no edema.

Serious eye damage/eye irritation

Hazard evaluated very low. Eye testing on albino rabbits in a 7 day test showed low levels of corneal irritation after 48 hours with full recovery by day 7, very low levels of iris irritation with complete recovery in 72 hours, moderate conjunctivae irritation after 24 hours with complete recovery by day 7, low to moderate lid swelling with complete recovery by day 7, and extremely low discharge with complete recovery in 72 hours.

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed carcinogen by IARC.

Reproductive Toxicity

No data Available

Specific target organ toxicity - single exposure

No data Available

Specific target organ toxicity - repeated exposure

No data Available

Aspiration hazard

No data Available

Potential health effects

Inhalation	May be harmful if inhaled. May cause respiratory tract irritation.
Ingestion	May be harmful if swallowed.
Skin	May be harmful if absorbed through skin. May cause skin irritation.
Eyes	Causes eye irritation.

Signs and symptoms of exposure

Cough, wheezing, shortness of breath, headache, nausea, vomiting. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Additional Information

Not available

SECTION 12 - ECOLOGICAL INFORMATION

Aquatic Toxicity

In accordance with U.S. EPA Office of Pollution Prevention and Toxics criteria for ranking the acute toxicity of chemicals in the aquatic environment, FlameOut™ is considered to be of low concern.

- 96 hour acute toxicity versus freshwater alga (Selenastrum capricornutum) IAW 40 CFR 797.1050 showed FlameOut™ was algicidal at concentrations above 750 ppm.
- 96 hour acute toxicity versus juvenile rainbow trout (Oncorhynchus mykiss) IAW 49 CFR 797.1400 showed an LC₅₀ of 105 ppm.
- 48 hour acute toxicity versus water fleas (Daphnia pulex) less than 24 hours old IAW 40 CFR 797.1300 showed an LC₅₀ of 159 ppm.

Persistence and degradability

No data Available

Bioaccumulative potential

Does not bioaccumulate.

Mobility in soil

No data Available

PBT and vPvB assessment

No data Available

Other adverse effects

No data Available

SECTION 13 - DISPOSAL CONSIDERATIONS

Product

Disposal should be in accordance with local, state and federal regulations. Consumers may dispose of small (household) quantities down the drain with running water. For large quantities contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Discard empty container in trash or thoroughly rinse and recycle container where facilities exist.

SECTION 14 - TRANSPORT INFORMATION

ADR/RID

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

SECTION 15 - REGULATORY INFORMATION

Federal Regulations:

TSCA INVENTORY STATUS: All components of this product are listed on the TSCA Inventory or are exempt from TSCA Inventory requirements.

SARA TITLE III SECTION 311/312 CATEGORY:

IMMEDIATE (ACUTE) HEALTH HAZARD: NO

DELAYED (CHRONIC) HEALTH HAZARD: NO

FIRE HAZARD: NO

SUDDEN RELEASE OF PRESSURE: NO

REACTIVE HAZARD: NO

SARA SECTIONS 302/304/313/HAP: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302. This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

STATES RIGHT TO KNOW: New Jersey, Pennsylvania, Massachusetts: 2-Ethylhexan-1-ol CAS -No. 104-76-7

The following statement is made in order to comply with the California State Drinking Water Act. California Proposition 65: This product does not contain any chemicals known to the State of California to cause cancer and/or to cause birth defects and other reproductive harm.

SECTION 16 - OTHER INFORMATION

Text of H-code(s) and R-phrases mentioned in Section 3

Acute Tox.	Acute toxicity
Eye Irrit.	Eye Irritation
Skin Irrit.	Skin Irritation
H312	Harmful in contact with skin
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation
H335	May cause respiratory irritation
Xi	Irritant
R36/37	Irritating to eyes and respiratory system
R37/38	Irritating to eyes and skin
R41	Risk of serious damage to eyes

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Amiran BioChemicals, LLC

Further Information

This document is prepared in accordance with 29 CFR 1910.1200. The purpose of this section is to ensure that the hazards of all chemicals produced or imported are evaluated, and that information concerning their hazards is transmitted to employers and employees.

All information appearing herein is based upon data obtained from the raw material manufacturer and/or recognized technical sources. While the information above is believed to be true and accurate, the author makes no representations as to its accuracy or sufficiency. Conditions of use are beyond the manufacturers control; therefore the users are responsible to verify this data under their own conditions, applications and regulations to determine if the product is suitable for their particular purposes. The users assume all risks of product use, handling, disposal, reliance upon, publication or use of the information contained herein. This information applies only to the product designated above and does not necessarily apply to its use in combination with other materials, products, chemical compounds, structures or processes