

**SAFETY DATA SHEET**  
**OSHA (HCS), 29 CFR 1910.1200**

**FIRE FIGHTING FOAM**

**Mini Firefighter™ is an environmentally friendly fire-suppressing agent to extinguish Class A, B C, and K fires. Mini Firefighter has a rapid cooling effect, which provides rapid extinguishment, prevention of re-ignition, and the encapsulation of hydrocarbons. Safe to store, handle and use. It leaves virtually no residue, is environmentally friendly, non-toxic, noncorrosive, and biodegradable.**

## **SECTION 1: IDENTIFICATION**

**1.1. Product identifier:**

MINI FIREFIGHTER

**1.3. Details of the importer:**

MINI FIREFIGHTER, 8 THE GREEN, SUITE #4882, DOVER, DE, 19901 [info@minifirefighter.com](mailto:info@minifirefighter.com)

**1.4. Emergency telephone number:**

+34 620 80 86 17 – 24 hour (V-S FOCUM)

**1.2. Relevant uses:**

Foam Fire Fighting Aerosol for fighting fires Class A (solids), Class B (hydrocarbon and polar solvents), Class C Electric fires up to 35.000V, and Class K (oil).

## **SECTION 2: HAZARDS IDENTIFICATION**

**2.1 Classification of the substance or mixture**

Classification category according to GHS – Liquid Gas – H280

No components are believed to be hazardous or listed in the NIOSH Recommendations for Occupational Safety and Health Standards, 1988, or are listed as hazardous by SARA, CERCLA, or RCRA. No OSHA PEL's are established for any of the other ingredients.

**2.1.1.** Main physicochemical properties: Non-flammable aerosol propellant. (see Section 9)

**2.1.2.** Stability and reactivity: May react with strong oxidizers. Avoid using the product on metal fires and contact with materials that react with water. Pressurized container: Do not pierce or burn, even after use. Protect from sunlight.

Store at temperatures between -40°F and +158°F. (See Section 10).

**2.1.3.** Toxicological information:

Eye contact: May cause eye irritation.

Chronical Exposure: Not known.

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**Signal word:** Warning

**Hazard Statement:** H280 – Contains gas under pressure; may explode if heated.

**Hazard pictograms:**



GHS04 Liquid Gas

**Precautionary statements:**

General precautions (consumer products):

P102 – Keep out of reach of children.

Prevention:

P251 – Pressured Container: Do not pierce or burn, even after use.

Storage:

P411 + 235, Store at temperatures not exceeding +158°F.

P410+P403, Protect from direct sunlight. Store in a well-ventilated place.

**2.3. Others hazards:**

**Results of PBT and vPvB assessment:**

Components of the mixture are not persistent, bioaccumulating and non-toxic (PBT).

Components of the mixture are not persistent and not bioaccumulating (vPvB).

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

**Chemical description:** Aqueous solution, mixture of hydrocarbons and organic salts (BoldFoam F-40) and aerosol non-flammable propellant HFO1234ZE (Trans-1,3,3,3-tetrafluoroprop-1-ene)

**Hazardous components:**

Components	Danger Class	Concentration range
Trans-1,3,3,3-tetrafluoroprop-1- ene	H280 Contains gas under pressure; may explode if heated	< 30%

**Non Hazardous components:** BoldFoam F-40 (Organic Salts (<35%), hydrocarbon surfactants (<3%), fluorosurfactants (<1%), butyl diglycol (<1%), acetic acid (<0.5%), corrosion inhibitor (<0.1%) and water (<60%))

**Additional information:** For the wording of the listed risk phrases refer to section 16.

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## **SECTION 4: FIRST AID MEASURES**

### **4.1. First aid measures:**

#### **4.1.1. Inhalation:**

Use proper respiratory protection based on type of fire. If vapors or mist from heating causes discomfort in nose and throat, move to fresh air. Seek medical attention in case of symptoms persisting.

#### **4.1.2. Skin contact:**

Rinse with water. Wash with soap and water. Contaminated clothing should be washed before re-use. Get medical attention if skin irritation develops or persists

#### **4.1.3. Eyes contact:**

In case of eye contact wash immediately with water for at least 15 minutes. Remove contact lenses if necessary before washing. After washing, seek doctor for secondary advice.

#### **4.1.4. Swallowing:**

Rinse mouth and throat with plenty of water. Do not induce vomiting. In case this happens, keep the head angled forward to avoid intake. Keep the affected person in repose. Get medical attention.

### **4.2. Important symptoms and effects, both acute and delayed:**

There are no specific symptoms related to the product.

### **4.3 Indication of any immediate medical attention and special treatment needed:**

In case of doubt, or when malaise symptoms continue, seek for medical attention.

## **SECTION 5: FIREFIGHTING MEASURES**

### **5.1. Extinguishing media.**

Appropriate extinguishing methods: Apply foam from container.

### **5.2. Special hazards arising from the substance or mixture.**

Aerosol can explode where temperatures exceed 158°F. Keep containers cold spraying with water. Decomposition of products been extinguished may be themselves toxic.

### **5.3. Advice for fire fighters.**

According to size of the fire, it may be necessary to use protective clothes against heat, independent respiratory equipment, gloves, protective goggles or facial mask and boots.

**Additional information:** Dispose as non-hazardous waste in accordance with local regulations.

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

### **6.1. Personal precautions, protective equipment and emergency procedures.**

Do not expose the Aerosol canister under a naked flame or potential ignition source. See safety regulations under heading 7 and 8.

### **6.2. Environmental precautions.**

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Waste Disposal Method: Small amounts (single aerosol) can be disposed into the sewer system with other waters. Dispose product as non-hazardous waste in accordance with local regulations. Always consult local EPA for disposal regulations. See section 13.

**6.3. Methods and material for containment and cleaning up.**

Use absorbent material (including paper towels, sand, silica gel, acid binder, sawdust) and dispose in trash/trade refuge. Clean contaminated equipment with water. Foam contents is non-toxic.

**6.4. Reference to other sections.**

See section 7 for information on safe handling and storage.  
See section 8 for information on personal protection equipment.  
See section 13 for disposal information.

**SECTION 7: HANDLING AND STORAGE**

**7.1. Precautions for safe handling.**

Pressurized container.  
Store at temperatures between -40°F and +158°F.  
Protect from sunlight and avoid exposure.  
Do not drill nor burn container, even after use.  
Keep out of the reach of children.

Spills or Leak: Use absorbent material (including paper towels, sand, silica gel, acid binder, sawdust) and dispose in trash/trade refuge. Clean contaminated equipment with water. Spill will result in slippery surface conditions until washed with water.  
Foam contents is non-toxic. (Section 6)

Avoid contact with eyes, skin or clothing. Wash hands after each use. Avoid ingestion or inhalation (Section 4)

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

Keep containers hermetically sealed in a clean and well-ventilated area. Store in original containers at temperatures between -40°F and +158°F. Keep away from direct sunlight.

**7.3. Specific end use(s).**

No other recommendations from already described in Section 1 usage of this product.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

**8.1. Control parameters.**

**Substances whose limit values of professional exposure have to be controlled at work environment:**

Components	Long-term value	Short –term value
1,1,1,3-tetrafluoroprop-1-ene CAS: 29118-24-9 CE: 471-480-0 REACH: 01-0000019758-54	800ppm.	N/A No professional exposure limits known.

TWA: Weighted average in time for a period of 8 hours.

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**8.2. Exposure controls.**

Usual precautionary measures should be adhered to when handling chemicals.

Keep away from foodstuffs, beverages and feed.

Do not eat, drink, smoke or sniff while working.

Remove all soiled and contaminated clothing immediately.

Avoid contact with eyes and skin.

After skin contact, cleanse skin thoroughly.

After contact with eyes, rinse immediately.

**8.2.1. Eye/Face protection:**

Avoid eye contact. Use of goggles recommended to prevent probability of eye contact.

**8.2.2. Hand protection:**

Wear if there is prolonged skin contact.

**8.2.3. Body and inhalation protection:**

Work clothes and slip-resistant footwear suggested.

Use proper respiratory protection if needed

**8.2.4. Skin protection:**

Workers should wash exposed skin with soap and water. Soiled clothing should be laundered or dry cleaned.

**8.2.5. Environmental exposure control:**

Handle and dispose product as non-hazardous waste in accordance with local regulations. Always consult local EPA for disposal regulations.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

**9.1. Physical and chemical properties.**

Appearance: Aerosol.

Odour: Mild pleasant clean smell.

Odour threshold: Not determined\*.

Flammability: Non-flammable aerosol propellant

pH-value at 20°C: 8,0 - 10,0

Boiling Temperature: 266 °F

Freezing point <-40°F

Flash point: Not applicable.

Density at 20°C: 1,02g/cm<sup>3</sup>

Solubility in / Miscibility in Water: Fully miscible.

Viscosity (mPa's):	20°C	0°C
	375s-1 <10	<20

Gas: Vapor pressure at 122°F: 11bar

Physical state at normal atmospheric pressure 68°F:

Gas Freezing point: < -216.4°F

Boiling point: -2.2°F

Auto-Ignition Temperature: 726.8°F.

Danger of explosion: Aerosol contains gas under pressure; present an explosion hazard if heated.

\* Non-relevant due to the nature of the product, not adding any characteristic danger-based information.

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**SECTION 10: STABILITY AND REACTIVITY**

**10.1. Reactivity:**

No dangerous reactions are expected if all the storage information is followed thoroughly (see Section 7), although it may react to strong oxidants, in case of contact.

Pressurized container: protect from sunlight and prolonged exposure over 158°F.

**10.2. Chemical stability:**

Stable in common environmental conditions and in the above mentioned range of temperature during its storage and manipulation.

**10.3. Possibility of hazardous reactions:**

Dangerous reactions are not expected when it is stored and manipulated correctly.

**10.4. Conditions to avoid:**

Avoid temperatures outside the range of storage (see Section 7.2.). Storage to happen between -40°F and +158°F.

**10.5. Incompatible materials:**

Avoid use of products on burning metals and contact with strong oxidants and water-reactive materials.

**10.6. Hazardous decomposition products:**

Foam : None known.

HFO-1234ZE: Propellant Gas (negligible quantity in aerosol) Fluorinated pyrolysis products. Fluorinated hydrocarbons. Hydrogen fluoride.

**SECTION 11: TOXICOLOGICAL INFORMATION**

**11.1. Information on toxicological effects.**

a) Acute toxicity:

Foam: LD<sub>50</sub> > 2000 mg/Kg (according composition).

HFO1234ZE: LD<sub>50</sub> > 965 mg/l / >207000ppm (4 h exposure time).

b) Irritation: Non irritating (OCDE 404, 2002).

c) Corrosion: Not corrosive (OCDE 404, 2002).

d) Sensitization: Data not available.

e) Repeated dose toxicity: Data not available.

f) Carcinogenicity: Data not available.

g) Specific Toxicity on determined organs (STOT): Data not available.

h) Aspiration Danger: Data not available.

**SECTION 12: ECOLOGICAL INFORMATION**

**12.1. Toxicity:**

Components	CL <sub>50</sub> mg/l. 96h	CE <sub>50</sub> mg/l. 48h	CE <sub>50</sub> mg/l. 72h
Trans-1,3,3,3-tetrafluoroprop-1-ene	>117 (Fish)	> 160 (Daphnia)	> 117 (Seaweed)
Foam	Not available	Not available	Not available

**12.2. Persistence and degradability.**

Components	COD	BOD <sub>5</sub> /COD %5 days	Primary Biodegradation % 28 days
Trans-1,3,3,3-tetrafluoroprop-1-ene	Not available	Not available	Not available
Foam	337.000 mg O <sub>2</sub> /l	66	82

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**12.3. Bio accumulative potential.**

Data not available.

**12.4. Mobility in soil.**

Data not available. Avoid the contamination of the soil and water.

**12.5. Results of PBT and vPvB assessment.**

Components of the mixture are not considered to be persistent, bioaccumulating nor toxic (PBT).

Components of the mixture are not considered to be very persistent nor very bioaccumulative (vPvB).

**12.6. Others adverse effects.**

The spill of the product in large amounts will create copious quantities of foam. In the event of large spillage, let appropriate authorities know.

**SECTION 13: DISPOSAL CONSIDERATIONS**

**13.1. Waste treatment methods.**

**Recommendations:**

Within present knowledge of the supplier the contents is not regarded as hazardous waste.

Empty container by spraying until empty. Small amounts (single aerosol) can be disposed into the sewer system with other waters. Empty packaging can be disposed in accordance to local regulations. Dispose product as non-hazardous waste in accordance with local regulations. Always consult local EPA for disposal regulations.

**Uncleaned packagings:**

**Recommendation:** Disposal must be made according to official regulations.

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

**SECTION 14: TRANSPORT INFORMATION**

**UN Number 1950 AEROSOL**

2.2 Gas Non-flammable



DOT Shipping Name	Aerosol, Non Flammable
DOT ID Number	UN1950
DOT Class	SHIPPING CLASS 55 DOT 2P & 2Q ORD-D Limited Quantity
DOT Hazard Class	2.2 Gas Non Flammable
Road (RID)	
RID class	2
Danger code (Kemler)	20
Packaging group	---
Hazard label	2.2
Description of goods	1950 Aerosol
Air (ICAO-TI)	
ICAO class	2.2
Label	2.2
Packaging group	---
Packaging instructions	203 / Y203
Proper shipping name	Aerosol

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Sea (IMDG)	
IMDG class	2.2
Label	2.2
Packaging group	---
EMS number	F-C, S-V
Marine pollutant	No
Proper shipping name	Aerosol

## SECTION 15: REGULATORY INFORMATION

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture.

Must comply with local legislation on occupational risk prevention and environment.

### 15.2. Chemical safety assessment.

A Chemical Safety Assessment has not been carried out.

## SECTION 16: OTHER INFORMATION

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. Information on this SDS was obtained from sources we believe are reliable. However, the information is provided without any warranty, expressed or implied, regarding its correctness. Some information presented and conclusions herein are from sources other than test data on the substance itself. We do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with handling, storage, use or disposal of the product.

### 16.1. Revisions.

Current Version: 8  
Revision date: 09/07/2017

### 16.2. Legislation on Safety materials sheets.

This Safety Data Sheet has been developed according at Hazard Communication Standard (see 29 CFR 1910.1200(g) and Appendix D of 29 CFR 1910.1200).

Minimal training is recommended in the prevention of occupational hazards to personnel who will handle this product, in order to facilitate the understanding and interpretation of this safety data sheet and product labeling.