

# Safety Data Sheet



## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: FIRST RESPONSE Class A Foam Concentrate  
Reference Number: AST10146  
Date: October 6, 2016

### Company/Undertaking Identification:

**Perimeter Solutions**  
622 Emerson Road - Suite 500  
St. Louis, Missouri 63141

### Emergency telephone

In USA call CHEMTREC: 1 800 424 9300

Outside the USA, including ships at sea, call CHEMTREC's international and maritime telephone number (collect calls accepted): +1 (703) 527-3887

In Canada call CANUTEC: 1 613 996 6666

General Information: 1 800 244 6169 (Worldwide)

## 2. HAZARDS IDENTIFICATION

### GHS



GHS07

### Warning

Eye Irr. 2A H319 Causes serious eye irritation.

### Precautionary statements

P280 Wear eye protection/face protection.

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+P313 If eye irritation persists: Get medical advice/attention.

P264 Wash thoroughly after handling.

## Perimeter Solutions Safety Data Sheet

Material: FIRST RESPONSE Class A Foam Concentrate  
Reference No.: AST10146

Page 2 of 5  
October 6, 2016

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component</u>	<u>CAS No.</u>	<u>% by weight</u>
Alpha-olefin Sulfonate Solution	----	30-60
2,4-pentanediol, 2-methyl-	107-41-5	7 - 22
Lauryl alcohol	68855-56-1	1 - 4
d-limonene	5989-27-5	1 - 4
water	7732-18-5	25-55

### 4. FIRST AID MEASURES

IF IN EYES, immediately flush with plenty of water for at least 15 minutes. If easy to do, remove any contact lenses. Get medical attention. Remove material from skin, eyes and clothing.

IF ON SKIN, immediately flush with plenty of water. Remove contaminated clothing. Get medical attention if irritation persists. Wash clothing before reuse.

IF INHALED, remove to fresh air. Immediate first aid is not likely to be required, if breathing. If breathing is difficult give oxygen. If not breathing, give artificial respiration. Get medical attention.

IF SWALLOWED, immediate first aid is not likely to be required. A physician or Poison Control Center can be contacted for advice.

### 5. FIRE FIGHTING MEASURES

FLASH POINT: Not combustible

EXTINGUISHING MEDIA: Not applicable

UNUSUAL FIRE AND EXPLOSION HAZARDS: None known

SPECIAL FIRE FIGHTING PROCEDURES IN ENCLOSED AREAS:

First Response Foam Concentrate Solutions: There are no special hazards associated with dilute foam solutions as used for fire fighting.

First Response Foam Concentrate: If the concentrate becomes involved in a fire, fire fighters and others exposed to products of combustion should wear self-contained breathing apparatus and protective clothing. Equipment should be thoroughly cleaned after use.

### 6. ACCIDENTAL RELEASE MEASURES

Contain large spills with dikes and transfer the material to appropriate containers for reclamation or disposal. Absorb remaining material or small spills with an inert material and then place in a chemical waste container. Flush residual spill area with water.

Refer to Section 13 for disposal information and Sections 14 and 15 for reportable quantity information.

### 7. HANDLING AND STORAGE

#### HANDLING

Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep container closed. Use with adequate ventilation. Wash thoroughly after handling.

## Perimeter Solutions Safety Data Sheet

Material: FIRST RESPONSE Class A Foam Concentrate

Page 3 of 5

Reference No.: AST10146

October 6, 2016

### STORAGE:

Emptied container retains vapor and product residue. Observe all labeled safeguards until container is cleaned, reconditioned or destroyed. The reuse of this material's container for non-industrial purposes is prohibited and any reuse must be in consideration of the data provided in the MSDS.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**EYE PROTECTION:** Where there is significant potential for eye contact, wear chemical goggles and have eye flushing equipment available.

**SKIN PROTECTION:** Wear appropriate protective clothing and chemical resistant gloves to prevent skin contact. Consult glove manufacturer to determine appropriate type glove for given application. Wear face shield and chemical resistant clothing such as a rubber apron when splashing is likely. Wash contaminated skin promptly. Launder contaminated clothing and clean protective equipment before reuse. Wash thoroughly after handling.

**RESPIRATORY PROTECTION:** Avoid breathing vapor or mist. Use NIOSH/MSHA approved respiratory protection equipment (full facepiece recommended) when airborne exposure limits are exceeded (see below). Consult respirator manufacturer to determine appropriate type equipment for given application. Observe respirator use limitations specified by NIOSH/MSHA or the manufacturer. Respiratory protection programs must comply with 29 CFR 1910.134.

**VENTILATION:** Provide natural or mechanical ventilation to control exposure levels below airborne exposure limits (see below). If practical, use local mechanical exhaust ventilation at sources of air contamination such as open process equipment. Consult NFPA Standard 91 for design of exhaust systems.

### AIRBORNE EXPOSURE LIMITS:

<u>Product/Component</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>
First Response Foam Concentrate	None established	None established
2,4-pentanediol, 2-methyl-	25 ppm ceiling	25 ppm ceiling

Components referred to herein may be regulated by specific Canadian provincial legislation. Please refer to exposure limits legislated for the province in which the substance will be used.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

- a) Appearance: Golden brown liquid
- b) Odor: Similar to orange blossoms
- c) Odor threshold: Undetermined.
- d) pH: Undetermined.
- e) Melting point/freezing point: Undetermined
- f) Initial boiling point and boiling range: Undetermined.
- g) Flash point: Undetermined
- h) Evaporation rate: Undetermined.
- i) Flammability (solid, gas) : Undetermined.
- j) Upper/lower flammability or explosive limits: Undetermined.
- k) Vapor pressure: Undetermined.
- l) Vapor density: Undetermined.
- m) Relative density: Undetermined.
- n) Solubility(ies) : Water: Forms foam
- o) Partition coefficient: n-octanol/water: Undetermined.
- p) Auto-ignition temperature: Undetermined.
- q) Decomposition temperature: Undetermined.
- r) Viscosity: Undetermined.

## Perimeter Solutions Safety Data Sheet

Material: FIRST RESPONSE Class A Foam Concentrate  
Reference No.: AST10146

Page 4 of 5  
October 6, 2016

NOTE: These physical data are typical values based on material tested but may vary from sample to sample. Typical values should not be construed as a guaranteed analysis of any specific lot or as specifications for the product.

### 10. STABILITY AND REACTIVITY

STABILITY: Product is stable under normal conditions of storage and handling.

MATERIALS TO AVOID: None known

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, partially oxidized hydrocarbons, smoke and soot.

HAZARDOUS POLYMERIZATION: Will not occur

### 11. TOXICOLOGICAL INFORMATION

Data from Perimeter Solutions single-dose (acute) animal studies with this material are given below:

#### First Response Foam Concentrate

Acute Oral - Practically nontoxic (Rat LD<sub>50</sub>, > 5050 mg/kg)

Skin - No more than slightly toxic (Rabbit LD<sub>50</sub>, > 2020 mg/kg)

Eye Irritation - Mildly irritating (Single-washed 11.3, Double-washed 12.0)

Acute Skin Irritation - Slightly irritating (Primary irritation 0.4)

#### First Response Foam Concentrate Solution (1% solution in water)

Acute Oral - Practically non-toxic (Rat LD<sub>50</sub>, > 5050 mg/kg)

Skin - No more than slightly toxic (Rabbit LD<sub>50</sub>, > 2020 mg/kg)

Eye Irritation – Non- irritating

Acute Skin Irritation – Non- irritating

### 12. ECOLOGICAL INFORMATION

#### Environmental Toxicity

96-hr LC<sub>50</sub> Rainbow Trout, 27.9 mg/l

Due to the sensitivity of aquatic life to chemicals, we do not recommend the application of First Response directly into streams or others bodies of water. First Response meets the requirements of USDA Forest Service Specification 5100-307a.

#### Environmental Fate

Readily biodegradable

### 13. DISPOSAL CONSIDERATIONS

This material when discarded is not a hazardous waste as that term is defined by the Resource, Conservation and Recovery Act (RCRA), 40 CFR 261. Dispose of by incineration or recycle in accordance with local, state and federal regulations. Consult your attorney or appropriate regulatory officials for information on such disposal.

### 14. TRANSPORT INFORMATION

The data provided in this section is for information only. Please apply the appropriate regulations to properly classify your shipment for transportation.

**Perimeter Solutions Safety Data Sheet**

Material: FIRST RESPONSE Class A Foam Concentrate  
Reference No.: AST10146

Page 5 of 5  
October 6, 2016

IMDG/UN not hazardous for transportation  
ICAO/IATA not hazardous for transportation  
RID/ADR not hazardous for transportation  
Canadian TDG not hazardous for transportation  
US DOT not hazardous for transportation

**15. REGULATORY INFORMATION**

TSCA Inventory: Listed  
DSL Inventory: Listed  
WHMIS Classification: D2 (B) - Materials Causing Other Toxic Effects

SARA Hazard Notification

Hazard Categories under Title III Rules (40 CFR 370): Immediate  
Section 302 Extremely Hazardous Substances: Not Applicable  
Section 313 Toxic Chemical(s): Not Applicable

CERCLA Reportable Quantity: Not applicable

California Proposition 65: Not applicable

This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulation and the MSDS contains all the information required by the Canadian Controlled Products Regulation.

Refer to Section 11 for OSHA/HPA Hazardous Chemical(s) and Section 13 for RCRA classification.

**16. OTHER INFORMATION**

	Health	Fire	Reactivity	Additional Information
Suggested NFPA Rating	2	0	0	
Suggested HMIS Rating	2	0	0	G G = Safety glasses, gloves, dust & vapor respirator

Reason for revision: Section 3.  
Product Use: Fire Suppressant

Supersedes MSDS dated: September 15, 2015

Responsible Care ® is a registered trademark of the American Chemistry Council.

Although the information and recommendations set forth herein (hereinafter "Information") are presented in good faith and believed to be correct as of the date hereof, Perimeter Solutions makes no representations as to the completeness or accuracy thereof. Information is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use. In no event will Perimeter Solutions be responsible for damages of any nature whatsoever resulting from the use of or reliance upon information. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS