

# Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: October 09, 2018

Revision: October 09, 2018

## 1 Identification

- **Product identifier**
- **Trade name:** First Defense® .2% MK-3 Foam OC Aerosol  
First Defense® .2% MK-4 Foam OC Aerosol
- **Product code:**  
5036 (1011713): MK-3  
5046 (1011717): MK-4
- **Recommended use and restriction on use**
- **Recommended use:** Crowd Control Device
- **Restrictions on use:** Contact manufacturer/supplier
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**  
Safariland, LLC  
13386 International Parkway  
Jacksonville, FL 32218  
Customer Care (800) 347-1200
- **Emergency telephone number:**  
ChemTel Inc.  
(800)255-3924 (North America)  
+1 (813)248-0585 (International)



## 2 Hazard(s) identification

- **Classification of the substance or mixture**  
Press. Gas H280 Contains gas under pressure; may explode if heated.  
Skin Irrit. 2 H315 Causes skin irritation.  
Eye Irrit. 2A H319 Causes serious eye irritation.  
STOT SE 3 H335 May cause respiratory irritation.
- **Label elements**
- **GHS label elements**  
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms:**  

GHS04 GHS07
- **Signal word:** Warning
- **Hazard statements:**  
H280 Contains gas under pressure; may explode if heated.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H335 May cause respiratory irritation.
- **Precautionary statements:**  
P233 Keep container tightly closed.  
P261 Avoid breathing mist, vapors, or spray.  
P264 Wash thoroughly after handling.

(Cont'd. on page 2)

# Safety Data Sheet

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(Cont'd. of page 1)

P271 Use only outdoors or in a well-ventilated area.  
 P280 Wear protective gloves and eye protection.  
 P302+P352 If on skin: Wash with plenty of water.  
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P312 Call a poison center/doctor if you feel unwell.  
 P332+P313 If skin irritation occurs: Get medical advice/attention.  
 P362+P364 Take off contaminated clothing and wash it before reuse.  
 P337+P313 If eye irritation persists: Get medical advice/attention.  
 P405 Store locked up.  
 P410+P403 Protect from sunlight. Store in a well-ventilated place.  
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Additional information:** Pressurized container: May burst if heated.

· **Other hazards** There are no other hazards not otherwise classified that have been identified.

## 3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Components:**

811-97-2	Norflurane ⚠ Press. Gas, H280 Simple Asphyxiant	10-20%
7727-37-9	nitrogen ⚠ Press. Gas, H280 Simple Asphyxiant	10-20%
29118-24-9	(1E)-1,3,3,3-Tetrafluoro-1-propene Simple Asphyxiant	10-20%
57-55-6	Propylene glycol	10-20%
112-34-5	2-(2-butoxyethoxy)ethanol ⚠ Eye Irrit. 2A, H319	10-20%
8023-77-6	Oleoresin Capsicum ⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335	<10%
151-21-3	Sodium dodecyl sulphate ⚠ Eye Dam. 1, H318 ⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315	<5.0%

· **Additional information:**

Propellant will be 1234-ze, norflurane, nitrogen or mixture of these propellants.

For the wording of the listed Hazard Statements, refer to section 16.

For the listed ingredient(s), the identity and/or exact percentage(s) are being withheld as a trade secret.

## 4 First-aid measures

· **Description of first aid measures**

(Cont'd. on page 3)

# Safety Data Sheet

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(Cont'd. of page 2)

- **After inhalation:**  
 Supply fresh air; consult doctor in case of complaints.  
 Provide oxygen treatment if affected person has difficulty breathing.
- **After skin contact:**  
 Immediately wash with water and soap and rinse thoroughly.  
 Seek medical treatment in case of complaints.
- **After eye contact:**  
 Remove contact lenses if worn.  
 Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**  
 Unlikely route of exposure.  
 Rinse out mouth and then drink plenty of water.  
 Do not induce vomiting; immediately call for medical help.
- **Most important symptoms and effects, both acute and delayed:**  
 Coughing  
 Irritating to eyes, respiratory system and skin.  
 Gastric or intestinal disorders when ingested.
- **Danger:** No relevant information available.
- **Indication of any immediate medical attention and special treatment needed:**  
 If necessary oxygen respiration treatment.  
 If medical advice is needed, have product container or label at hand.

## 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
 Use fire fighting measures that suit the environment.  
 The product is not flammable.
- **For safety reasons unsuitable extinguishing agents:** None.
- **Special hazards arising from the substance or mixture**  
 During heating or in case of fire poisonous gases are produced.  
 Danger of receptacles bursting because of high vapor pressure if heated.
- **Advice for firefighters**
- **Protective equipment:**  
 Wear self-contained respiratory protective device.  
 Wear fully protective suit.
- **Additional information:** Leaking gas fire: Do not extinguish, unless leak can be stopped safely.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
 Ensure adequate ventilation.  
 For large spills, use respiratory protective device against the effects of fumes/dust/aerosol.  
 For large spills, wear protective clothing.
- **Environmental precautions**  
 Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage

(Cont'd. on page 4)

# Safety Data Sheet

acc. to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Printing date: October 09, 2018

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(Cont'd. of page 3)

system.

· **Methods and material for containment and cleaning up**

Allow to evaporate.

Absorb liquid components with liquid-binding material.

Send for recovery or disposal in suitable receptacles.

· **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.

## 7 Handling and storage

· **Handling**

· **Precautions for safe handling:**

Use only in well ventilated areas.

Avoid splashes or spray in enclosed areas.

Keep out of reach of children.

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

· **Conditions for safe storage, including any incompatibilities**

· **Requirements to be met by storerooms and receptacles:**

Store in a cool location.

Observe official regulations on storing packagings with pressurized containers.

· **Information about storage in one common storage facility:** Store away from foodstuffs.

· **Further information about storage conditions:**

Store in a cool place. Heat will increase pressure and may lead to the receptacle bursting.

· **Specific end use(s)** No relevant information available.

## 8 Exposure controls/personal protection

· **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

**7727-37-9 nitrogen**

TLV (USA) withdrawn TLV, see App. F; simple asphyxiant

EL (Canada) Simple asphyxiant

LMPE (Mexico) Asfixiante simple

**811-97-2 Norflurane**

WEEL (USA) Long-term value: 1000 ppm

**57-55-6 Propylene glycol**

WEEL (USA) Long-term value: 10 mg/m<sup>3</sup>

EV (Canada) Long-term value: 155\* 10\*\* mg/m<sup>3</sup>, 50\* ppm  
 \*vapour and aerosol;\*\*aerosol only

**112-34-5 2-(2-butoxyethoxy)ethanol**

TLV (USA) Long-term value: 67.5\* mg/m<sup>3</sup>, 10\* ppm

(Cont'd. on page 5)

# Safety Data Sheet

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**First Defense® .2% MK-4 Foam OC Aerosol**

(Cont'd. of page 4)

\*Inhalable fraction and vapor

- **Exposure controls**
- **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.  
 Wash hands before breaks and at the end of work.
- **Engineering controls:** Provide adequate ventilation.
- **Breathing equipment:** Suitable respiratory protective device recommended.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

- **Eye protection:**



Safety glasses

Follow relevant national guidelines concerning the use of protective eyewear.

- **Body protection:** Protective work clothing
- **Limitation and supervision of exposure into the environment**  
 No relevant information available.

## 9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **Appearance:**

**Form:** Aerosol  
**Color:** Amber colored

- **Odor:** Pungent
- **Odor threshold:** Not determined.

- **pH-value:** Not determined.
- **Melting point/Melting range:** Not applicable, as aerosol.
- **Boiling point/Boiling range:** Not applicable, as aerosol.

- **Flash point:** Not applicable, as aerosol.

- **Flammability (solid, gaseous):** Not applicable.

- **Auto-ignition temperature:** Not determined.

- **Decomposition temperature:** Not determined.

- **Danger of explosion:** Not determined.

- **Explosion limits**  
**Lower:** Not determined.

(Cont'd. on page 6)

# Safety Data Sheet

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(Cont'd. of page 5)

· <b>Upper:</b>	Not determined.
· <b>Oxidizing properties:</b>	Not determined.
· <b>Vapor pressure:</b>	Not determined.
· <b>Density:</b>	
<b>Relative density:</b>	Not determined.
<b>Vapor density:</b>	Not determined.
<b>Evaporation rate:</b>	Not applicable.
· <b>Solubility in / Miscibility with Water:</b>	Partly miscible.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
· <b>Other information</b>	No relevant information available.

## 10 Stability and reactivity

- **Reactivity:** No relevant information available.
- **Chemical stability:** Stable under normal temperatures and pressures.
- **Thermal decomposition / conditions to be avoided:**  
Danger of receptacles bursting because of high vapor pressure if heated.
- **Possibility of hazardous reactions**  
Toxic fumes may be released if heated above the decomposition point.
- **Conditions to avoid** Excessive heat.
- **Incompatible materials** No relevant information available.
- **Hazardous decomposition products**  
Under fire conditions only:  
Possible in traces.

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

### 8023-77-6 Oleoresin Capsicum

Oral	LD50	3,000 mg/kg (rat)
Dermal	LD50	>2,500 mg/kg (mouse)

### 151-21-3 Sodium dodecyl sulphate

Oral	LD50	1,288 mg/kg (rat)
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- **Primary irritant effect:**
- **On the skin:** Irritant to skin and mucous membranes.

(Cont'd. on page 7)

# Safety Data Sheet

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**First Defense® .2% MK-4 Foam OC Aerosol**

(Cont'd. of page 6)

- **On the eye:** Irritating effect.
- **Sensitization:** Based on available data, the classification criteria are not met.

· **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.

· **Probable route(s) of exposure:**

Inhalation.  
 Eye contact.  
 Skin contact.

- **Acute effects (acute toxicity, irritation and corrosivity):** Irritating to eyes, respiratory system and skin.
- **Repeated dose toxicity:** From product as supplied: None.
- **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
- **Carcinogenicity:** Based on available data, the classification criteria are not met.
- **Reproductive toxicity:** Based on available data, the classification criteria are not met.
- **STOT-single exposure:** May cause respiratory irritation.
- **STOT-repeated exposure:** Based on available data, the classification criteria are not met.
- **Aspiration hazard:** Based on available data, the classification criteria are not met.

## 12 Ecological information

· **Toxicity**

- **Aquatic toxicity** No relevant information available.
- **Persistence and degradability** No relevant information available.
- **Bioaccumulative potential:** No relevant information available.
- **Mobility in soil:** No relevant information available.

· **Additional ecological information**

· **General notes:**

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.  
 Negative ecological effects are, according to the current state of knowledge, not expected.

· **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No relevant information available.

## 13 Disposal considerations

· **Waste treatment methods**

· **Recommendation:**

The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

(Cont'd. on page 8)

**Safety Data Sheet**

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**First Defense® .2% MK-4 Foam OC Aerosol**

(Cont'd. of page 7)

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

**14 Transport information**· **UN-Number**

· DOT, ADR, IMDG, IATA UN1950

· **UN proper shipping name**

· DOT Aerosols  
 · ADR, IMDG AEROSOLS  
 · IATA Aerosols, non-flammable

· **Transport hazard class(es)**

## · DOT



· Class 2.2  
 · Label 2.2

## · ADR



· Class 2 5A  
 · Label 2.2

## · IMDG, IATA



· Class 2  
 · Label 2.2

· **Packing group** Aerosols are not assigned a packing group.

· **Environmental hazards**

· **Marine pollutant:** No

· **Special precautions for user**

Warning: Gases

· **EMS Number:**

F-D,S-U

· **Transport in bulk according to Annex II of**

**MARPOL73/78 and the IBC Code** Not applicable.

(Cont'd. on page 9)



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**First Defense® .2% MK-4 Foam OC Aerosol**

(Cont'd. of page 8)

## 15 Regulatory information

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

· **United States (USA)**  
 · **SARA**

· **Section 302 (extremely hazardous substances):**

None of the ingredients are listed.

· **Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

· **Section 313 (Specific toxic chemical listings):**

112-34-5 | 2-(2-butoxyethoxy)ethanol

· **TSCA (Toxic Substances Control Act)**

All ingredients are listed.

· **Proposition 65 (California)**

· **Chemicals known to cause cancer:**

None of the ingredients are listed.

· **Chemicals known to cause developmental toxicity for females:**

None of the ingredients are listed.

· **Chemicals known to cause developmental toxicity for males:**

None of the ingredients are listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

· **EPA (Environmental Protection Agency):**

None of the ingredients are listed.

· **IARC (International Agency for Research on Cancer):**

None of the ingredients are listed.

· **Canadian Domestic Substances List (DSL) (Substances not listed.):**

All ingredients listed on DSL or NDSL.

## 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.

· **Abbreviations and acronyms:**

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bio-accumulable, Toxic

(Cont'd. on page 10)

# Safety Data Sheet

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**First Defense® .2% MK-4 Foam OC Aerosol**

(Cont'd. of page 9)

vPvB: very Persistent and very Bioaccumulative  
OSHA: Occupational Safety & Health Administration  
Press. Gas: Gases under pressure – Compressed gas  
Acute Tox. 4: Acute toxicity – Category 4  
Skin Irrit. 2: Skin corrosion/irritation – Category 2  
Eye Dam. 1: Serious eye damage/eye irritation – Category 1  
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A  
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

**Sources**

Website, European Chemicals Agency ([echa.europa.eu](http://echa.europa.eu))  
Website, US EPA Substance Registry Services ([ofmpub.epa.gov/sor\\_internet/registry/substreg/home/overview/home.do](http://ofmpub.epa.gov/sor_internet/registry/substreg/home/overview/home.do))  
Website, Chemical Abstracts Registry, American Chemical Society ([www.cas.org](http://www.cas.org))  
Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6  
Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaassen, Curtis D., ed., ISBN: 978-0-07-176923-5.  
Safety Data Sheets, Individual Manufacturers

SDS Prepared by:

ChemTel Inc.

1305 North Florida Avenue

Tampa, Florida USA 33602-2902

Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573

Website: [www.chemtelinc.com](http://www.chemtelinc.com)