Safety Data Sheet

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

Printing date: March 30, 2017 Revision: March 30, 2017

1 Identification

· **Product identifier**

· **Trade name: First Defense® .4% MK-4 Foam OC Aerosol**
· **Product code:** 56342 (1093471)

· **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
· **Information department:** Customer Care Department

· **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.
Carc. 2	H351	Suspected of causing cancer.
Repr. 1	H360	May damage fertility or the unborn child.
STOT SE 3	H335	May cause respiratory irritation.
STOT RE 2	H373	May cause damage to organs through prolonged or repeated exposure.

· **Label elements**
· **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
· **Hazard pictograms:**

GHS04 GHS07 GHS08

· **Signal word:** Danger
· **Hazard statements:**
H280 Contains gas under pressure; may explode if heated.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H351 Suspected of causing cancer.
H360 May damage fertility or the unborn child.

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H335 May cause respiratory irritation.
H373 May cause damage to organs through prolonged or repeated exposure.

· **Precautionary statements:**

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe mist/vapors/spray.
P264	Wash thoroughly after handling.
P280	Wear protective gloves and eye protection.
P271	Use only outdoors or in a well-ventilated area.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P405	Store locked up.
P410	Protect from sunlight.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

· **NFPA ratings (scale 0 - 4)**

Health = 1
Fire = 3
Reactivity = 1

· **HMIS-ratings (scale 0 - 4)**

Health = *1
Fire = 3
Reactivity = 1

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Components:**

57-55-6	propylene glycol	20-40%
8023-77-6	Oleoresin Capsicum	10-20%
	Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H335	
68603-42-9	coconut diethanolamide	5-10%
	Skin Irrit. 2, H315; Eye Irrit. 2A, H319	
106-94-5	1-bromopropane	1-5%
	Flam. Liq. 2, H225 Carc. 2, H351; Repr. 1B, H360; STOT RE 2, H373 Skin Irrit. 2, H315; Eye Irrit. 2A, H319; STOT SE 3, H336	

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56-81-5	glycerol	0.1-1%
111-42-2	2,2'-iminodiethanol	0.1-1%
	Carc. 2, H351; STOT RE 2, H373 Eye Dam. 1, H318 Acute Tox. 4, H302; Skin Irrit. 2, H315	
29118-24-9	(1E)-1,3,3,3-Tetrafluoro-1-propene	
	Press. Gas, H280 Simple Asphyxiant	

· **Additional information:**
For the wording of the listed Hazard Statements refer to section 16.
Equivalent to 0.2% major capsaicinoid (MC) content.

4 First-aid measures

· **Description of first aid measures**
· **General information:**
Immediately remove any clothing soiled by the product.
Take affected persons out into the fresh air.
Do not leave affected persons unattended.
Provide oxygen treatment if affected person has difficulty breathing.
· **After inhalation:**
Supply fresh air; consult doctor in case of complaints.
Provide oxygen treatment if affected person has difficulty breathing.
In case of irregular breathing or respiratory arrest provide artificial respiration.
· **After skin contact:**
Immediately rinse with water.
Clean with water and soap.
If skin irritation continues, consult a doctor.
· **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:**
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
Nausea
Breathing difficulty
Cramp
Thirst
Dizziness
Irritating to eyes, respiratory system and skin.
Disorientation
· **Danger:**
Danger of impaired breathing.
May damage fertility or the unborn child.
Suspected of causing cancer.

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May cause damage to organs through prolonged or repeated exposure.

· **Indication of any immediate medical attention and special treatment needed:**
Medical supervision for at least 48 hours.
Monitor circulation, possible shock treatment.
Treat skin and mucous membrane with antihistamine and corticoid preparations.

5 Fire-fighting measures

· **Extinguishing media**
· **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
· **For safety reasons unsuitable extinguishing agents:** None.
· **Special hazards arising from the substance or mixture**
Danger of receptacles bursting because of high vapor pressure if heated.
Formation of toxic gases is possible during heating or in case of fire.
· **Advice for firefighters**
· **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.
· **Additional information:**
Cool endangered receptacles with water spray.
No relevant information available.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**
FOR ALL TRANSPORTATION ACCIDENTS, CALL CHEMTEL AT 1-800-255-3924. Spills of this material should be handled carefully. Do not subject materials to mechanical shock or extreme heat. A spill of this material will normally not require emergency response team capabilities.
Use respiratory protective device against the effects of fumes/dust/aerosol.
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation.
· **Environmental precautions** No special measures required.
· **Methods and material for containment and cleaning up**
Allow to evaporate.
Clean the affected area carefully; suitable cleaners are:
Warm water and cleansing agent
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
· **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.

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7 Handling and storage

· **Handling**
· **Precautions for safe handling:**
Use only in well ventilated areas.
Avoid splashes or spray in enclosed areas.
· **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:**
Observe official regulations on storing packagings with pressurized containers.
Avoid storage near extreme heat, ignition sources or open flame.
Provide ventilation for receptacles.
· **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:**
The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.
At this time, the other constituents have no known exposure limits.

57-55-6 propylene glycol	
WEEL (USA)	Long-term value: 10 mg/m³
EV (Canada)	Long-term value: 155* 10** mg/m³, 50* ppm *vapour and aerosol;**aerosol only
106-94-5 1-bromopropane	
TLV (USA)	Long-term value: 0.5 mg/m³, 0.1 ppm
EL (Canada)	Long-term value: 10 ppm R
EV (Canada)	Long-term value: 10 ppm
LMPE (Mexico)	Long-term value: 10 ppm
56-81-5 glycerol	
PEL (USA)	Long-term value: 15* 5** mg/m³ mist; *total dust **respirable fraction
TLV (USA)	TLV withdrawn-insufficient data human occup. exp.
EL (Canada)	Long-term value: 10* 3** mg/m³ *mist; **mist, respirable
EV (Canada)	Long-term value: 10 mg/m³

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LMPE (Mexico)	Long-term value: 10 mg/m³
111-42-2 2,2'-iminodiethanol	
REL (USA)	Long-term value: 15 mg/m³, 3 ppm
TLV (USA)	Long-term value: 1* mg/m³, 0.2* ppm Skin; *inhalable fraction and vapor
EL (Canada)	Long-term value: 2 mg/m³ Skin, IARC 2B
EV (Canada)	Long-term value: 2 mg/m³
LMPE (Mexico)	Long-term value: 2 mg/m³ A3, PIEL

· **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.
Wash hands before breaks and at the end of work.
Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes and skin.
· **Engineering controls:** Provide adequate ventilation.
· **Breathing equipment:**
Wear positive pressure NIOSH or European EN149 vapor respirators when deploying product in large quantities.
For spills, respiratory protection may be advisable.
· **Protection of hands:**
Gloves not required under normal conditions of use.
Wear protective gloves to handle contents of damaged or leaking units.
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
· **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
· **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
· **Eye protection:**

Safety glasses

· **Body protection:**
Not required under normal conditions of use.
Protection may be required for spills.

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· **Limitation and supervision of exposure into the environment**
No relevant information available.
· **Risk management measures**
See Section 7 for additional information.
No relevant information available.

9 Physical and chemical properties

· **Information on basic physical and chemical properties**	
· **Appearance:**	
Form:	Aerosol
Color:	Whitish
· **Odor:**	Characteristic
· **Odor threshold:**	Not determined.
· **pH-value:**	Not determined.
· **Melting point/Melting range:**	Not determined.
· **Boiling point/Boiling range:**	Not determined.
· **Flash point:**	Not applicable - does not support sustained combustion.
· **Flammability (solid, gaseous):**	Not applicable.
· **Auto-ignition temperature:**	Not determined.
· **Decomposition temperature:**	Not determined.
· **Danger of explosion:**	Product does not present an explosion hazard.
· **Explosion limits**	
Lower:	Not determined.
Upper:	Not determined.
· **Vapor pressure:**	Not determined.
· **Density:**	Not determined.
· **Relative density:**	Not determined.
· **Vapor density:**	Not determined.
· **Evaporation rate:**	Not applicable.
· **Solubility in / Miscibility with**	
Water:	Fully miscible.
· **Partition coefficient (n-octanol/water):**	Not determined.
· **Viscosity**	
Dynamic:	Not determined.
Kinematic:	Not determined.
· **Other information**	No relevant information available.

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10 Stability and reactivity

· **Reactivity:** No relevant information available.
· **Chemical stability:**
· **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
· **Possibility of hazardous reactions**
Toxic fumes may be released if heated above the decomposition point.
· **Conditions to avoid** No relevant information available.
· **Incompatible materials** No relevant information available.
· **Hazardous decomposition products**

Under fire conditions only:
Danger of toxic fluorine based pyrolysis products.

11 Toxicological information

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

· **LD/LC50 values that are relevant for classification:**		
8023-77-6 Oleoresin Capsicum		
Oral	LD50	3000 mg/kg (rat)
Dermal	LD50	>2500 mg/kg (mouse)
106-94-5 1-bromopropane		
Inhalative	LC50/4h	253 mg/l (rat)

· **Primary irritant effect:**
· **On the skin:** Irritant to skin and mucous membranes.
· **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):**		
106-94-5	1-bromopropane	R

· **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:** Danger of very serious irreversible effects.
· **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**
Carc. 2, Repr. 1

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· **Germ cell mutagenicity:** Based on available data, the classification criteria are not met.
· **Carcinogenicity:** Suspected of causing cancer.
· **Reproductive toxicity:** May damage fertility or the unborn child.
· **STOT-single exposure:** May cause respiratory irritation.
· **STOT-repeated exposure:** May cause damage to organs through prolonged or repeated exposure.
· **Aspiration hazard:** Based on available data, the classification criteria are not met.

12 Ecological information

· **Toxicity**

· **Aquatic toxicity**	
106-94-5 1-bromopropane	
LC50	24.3 mg/l (Oncorhynchus mykiss)

· **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.
· **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:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
Can be burned with household garbage after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.
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. Residual materials should be treated as hazardous.

· **Uncleaned packagings**
· **Recommendation:** Disposal must be made according to official regulations.
· **Recommended cleansing agent:** Water, if necessary with cleansing agents.

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14 Transport information

· **UN-Number**	
· **DOT, ADR, IMDG, IATA**	UN1950
· **UN proper shipping name**	
· **DOT**	Aerosols, Non-Flammable
· **ADR**	1950 AEROSOLS
· **IMDG, IATA**	AEROSOLS
· **Transport hazard class(es)**	
· **DOT**	
· **Class**	2 Gases
· **Label**	2.2
· **ADR**	
· **Class**	2 5A Gases
· **Label**	2.2
· **IMDG, IATA**	
· **Class**	2 Gases
· **Label**	2.2
· **Packing group**	Aerosols are not assigned a packing group.
· **Environmental hazards**	
· **Marine pollutant:**	No
· **Special precautions for user**	Warning: Gases
· **Danger code (Kemler):**	20
· **EMS Number:**	F-D,S-U
· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**	Not applicable.

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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):**

None of the ingredients are listed.

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

All ingredients are listed.

· **Proposition 65 (California)**

· **Chemicals known to cause cancer:**

68603-42-9	coconut diethanolamide
106-94-5	1-bromopropane
111-42-2	2,2'-iminodiethanol

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

106-94-5	1-bromopropane

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

106-94-5	1-bromopropane

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

106-94-5	1-bromopropane
67-56-1	methanol

· **Carcinogenic categories**

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

None of the ingredients are listed.

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

68603-42-9	coconut diethanolamide	2B
111-42-2	2,2'-iminodiethanol	2B

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

None of the ingredients are listed.

· **Canadian Domestic Substances List (DSL):**

All ingredients are listed.

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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.

· **Date of preparation / last revision** March 30, 2017 / -

· **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)
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
OSHA: Occupational Safety & Health
Press. Gas: Gases under pressure ï Compressed gas
Press. Gas: Gases under pressure ï Liquefied gas
Flam. Liq. 2: Flammable liquids ï Category 2
Acute Tox. 4: Acute toxicity ï Category 4
Skin Irrit. 2: Skin corrosion/irritation ï Category 2
Eye Dam. 1: Serious eye damage/eye irritation ï Category 1
Eye Irrit. 2A: Serious eye damage/eye irritation ï Category 2A
Carc. 2: Carcinogenicity ï Category 2
Carc. 2: Carcinogenicity ï Category 2
Repr. 1: Reproductive toxicity ï Category 1
Repr. 1B: Reproductive toxicity ï Category 1B
STOT SE 3: Specific target organ toxicity (single exposure) ï Category 3
STOT RE 2: Specific target organ toxicity (repeated exposure) ï Category 2

· **Sources**

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