

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date December 17, 2015

Reviewed on December 17, 2015

1 Identification

- **Product identifier**
- **Trade name:** Defense Technology 5146 - First Defense® Inert Training Unit MK-4 Foam OC Aerosol
- **Article number:** 5146 (1011751)
- **Recommended use and restriction on use**
- **Recommended use:** Practice solution.
- **Restrictions on use:** Contact manufacturer
- **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.
+1 (800)255-3924, +1 (813)248-0585



2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS04 Gas cylinder

Press. Gas H280 Contains gas under pressure; may explode if heated.



GHS08 Health hazard

Carc. 2 H351 Suspected of causing cancer.



GHS07

Eye Irrit. 2A H319 Causes serious eye irritation.

- **Label elements**

- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms:**

The following pictograms are optional for OSHA GHS labeling; GHS08. Notification is still required on the SDS.



GHS04 GHS07 GHS08

- **Signal word:** Warning
- **Hazard-determining components of labeling:** None.

(Cont'd. on page 2)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date December 17, 2015

Reviewed on December 17, 2015

Trade name: Defense Technology 5146 - First Defense® Inert Training Unit MK-4 Foam OC Aerosol

(Cont'd. of page 1)

· **Hazard statements:**

The following statements are optional for OSHA GHS labeling: H351. Notification is still required on the SDS.

H280 Contains gas under pressure; may explode if heated.

H319 Causes serious eye irritation.

H351 Suspected of causing cancer.

· **Precautionary statements:**

The following statements are optional for OSHA GHS labeling: P201, P202, P308+P313. Notification is still required on the SDS.

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P264 Wash thoroughly after handling.

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.

P308+P313 IF exposed or concerned: 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.

· **Classification system**

· **NFPA ratings (scale 0 - 4)**



Health = 1

Fire = 0

Reactivity = 1

· **HMIS-ratings (scale 0 - 4)**



HEALTH 1 Health = 1

FIRE 0 Fire = 0

REACTIVITY 1 Reactivity = 1

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

57-55-6	Propylene Glycol		20-40%
67-63-0	propan-2-ol	⚠ Flam. Liq. 2, H225 ⚠ Eye Irrit. 2, H319; STOT SE 3, H336	5-10%
68603-42-9	coconut diethanolamide	⚠ Skin Irrit. 2, H315; Eye Irrit. 2A, H319	5-10%
811-97-2	Norflurane	⚠ Press. Gas, H280 Simple Asphyxiant	5-10%

(Cont'd. on page 3)

Safety Data Sheet




acc. to OSHA HCS (29 CFR 1910.1200)

Printing date December 17, 2015

Reviewed on December 17, 2015

Trade name: Defense Technology 5146 - First Defense® Inert Training Unit MK-4 Foam OC Aerosol

(Cont'd. of page 2)

56-81-5	glycerol		0.1-1%
111-42-2	2,2'-iminodiethanol	<ul style="list-style-type: none">  Carc. 2, H351; STOT RE 2, H373  Eye Dam. 1, H318  Acute Tox. 4, H302; Skin Irrit. 2, H315 	0.1-1%

· **Additional information:** For the wording of the listed Hazard Statements refer to section 16.

4 First-aid measures

- **Description of first aid measures**
- **General information:** No special measures required.
- **After inhalation:**
Supply fresh air; consult doctor in case of complaints.
Provide oxygen treatment if affected person has difficulty breathing.
- **After skin contact:**
Rinse with warm water.
If skin irritation is experienced, 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:**
Headache
Dizziness
Nausea
Cramp
Thirst
Irritant to eyes.
Disorientation
- **Danger:** No relevant information available.
- **Indication of any immediate medical attention and special treatment needed:**
May produce a narcotic effect.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** None.
- **Special hazards arising from the substance or mixture**
In case of fire, the following can be released:
Carbon monoxide (CO)
Danger of receptacles bursting because of high vapor pressure if heated.
- **Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.

(Cont'd. on page 4)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date December 17, 2015

Reviewed on December 17, 2015

Trade name: Defense Technology 5146 - First Defense® Inert Training Unit MK-4 Foam OC Aerosol

(Cont'd. of page 3)

Wear fully protective suit.

- **Additional information:**

Eliminate all ignition sources if safe to do so.

Use large quantities of foam as it is partially destroyed by the product.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures:**

Use respiratory protective device against the effects of fumes/dust/aerosol.

Ensure adequate ventilation.

Wear protective equipment. Keep unprotected persons away.

Keep away from ignition sources.

- **Environmental precautions:** No special measures required.

- **Methods and material for containment and cleaning up:**

Absorb liquid components with liquid-binding material.

Send for recovery or disposal in suitable receptacles.

Clean the affected area carefully; suitable cleaners are:

Warm water

- **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:**

Avoid splashes or spray in enclosed areas.

Use only in well ventilated areas.

- **Information about protection against explosions and fires:**

Keep ignition sources away - Do not smoke.

- **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.

- **Information about storage in one common storage facility:**

Store away from oxidizing agents.

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

- **Additional information about design of technical systems:** No further data; see item 7.

(Cont'd. on page 5)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date December 17, 2015

Reviewed on December 17, 2015

Trade name: Defense Technology 5146 - First Defense® Inert Training Unit MK-4 Foam OC Aerosol

(Cont'd. of page 4)

· **Control parameters**

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

57-55-6 Propylene Glycol

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

67-63-0 propan-2-ol

PEL (USA)	Long-term value: 980 mg/m ³ , 400 ppm
REL (USA)	Short-term value: 1225 mg/m ³ , 500 ppm Long-term value: 980 mg/m ³ , 400 ppm
TLV (USA)	Short-term value: 984 mg/m ³ , 400 ppm Long-term value: 492 mg/m ³ , 200 ppm BEI
EL (Canada)	Short-term value: 400 ppm Long-term value: 200 ppm
EV (Canada)	Short-term value: 400 ppm Long-term value: 200 ppm
LMPE (Mexico)	Short-term value: 400 ppm Long-term value: 200 ppm A4, IBE

811-97-2 Norflurane

WEEL (USA)	Long-term value: 1000 ppm
------------	---------------------------

56-81-5 glycerol

PEL (USA)	Long-term value: 15* 5** mg/m ³ mist; *total dust **respirable fraction
TLV (USA)	TLV withdrawn-insufficient data human occup. exp.
EL (Canada)	Long-term value: 10* 3** mg/m ³ *mist; **mist, respirable
EV (Canada)	Long-term value: 10 mg/m ³
LMPE (Mexico)	Long-term value: 10 mg/m ³

111-42-2 2,2'-iminodiethanol

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

(Cont'd. on page 6)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date December 17, 2015

Reviewed on December 17, 2015

Trade name: Defense Technology 5146 - First Defense® Inert Training Unit MK-4 Foam OC Aerosol

(Cont'd. of page 5)

· **Ingredients with biological limit values:**

67-63-0 propan-2-ol

BEI (USA)	40 mg/L Medium: urine Time: end of shift at end of workweek Parameter: Acetone (background, nonspecific)
-----------	---

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:** No relevant information available.

· **Engineering controls:** Provide adequate ventilation.

· **Breathing equipment:** Not required under normal conditions of use.

· **Protection of hands:**

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.

· **For the permanent contact gloves made of the following materials are suitable:**

Butyl rubber, BR

Neoprene gloves

Nitrile rubber, NBR

Natural rubber, NR

· **Eye protection:**



Safety glasses

· **Body protection:**

Not required under normal conditions of use.

Protection may be required for spills.

· **Limitation and supervision of exposure into the environment** No special requirements.

· **Risk management measures** No special requirements.

(Cont'd. on page 7)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date December 17, 2015

Reviewed on December 17, 2015

Trade name: Defense Technology 5146 - First Defense® Inert Training Unit MK-4 Foam OC Aerosol

(Cont'd. of page 6)

9 Physical and chemical properties

· Information on basic physical and chemical properties

· General information

· Appearance:

 Form: Aerosol

 Color: Colorless

· Odor: Alcohol-like

· Odor threshold: Not determined.

· pH-value: Not determined.

· Change in condition:

 Melting point/Melting range: Not determined.

 Boiling point/Boiling range: Not applicable, as aerosol.

· Flash point: Product not expected to support sustained combustion.
Not applicable, as aerosol.

· Flammability (solid, gaseous): Not applicable.

· Auto-ignition temperature: >260 °C (>500 °F) (Estimate)

· Decomposition temperature: Not determined.

· Auto igniting: Product is not self-igniting.

· Danger of explosion: Product does not present an explosion hazard.

· Explosion limits:

 Lower: Not determined.

 Upper: Not determined.

· Vapor pressure at 20 °C (68 °F): 23 hPa (17 mm Hg)

· Density at 20 °C (68 °F): 0.9-1.1 g/cm³ (7.511-9.18 lbs/gal) (Estimate)

· 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.

10 Stability and reactivity

· Reactivity: No relevant information available.

(Cont'd. on page 8)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date December 17, 2015

Reviewed on December 17, 2015

Trade name: Defense Technology 5146 - First Defense® Inert Training Unit MK-4 Foam OC Aerosol

(Cont'd. of page 7)

- **Chemical stability:**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
Danger of receptacles bursting because of high vapor pressure if heated.
- **Possibility of hazardous reactions:** Reacts with strong oxidizing agents.
- **Conditions to avoid:** No relevant information available.
- **Incompatible materials:** No relevant information available.
- **Hazardous decomposition products:** Possible in traces.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:** None.
- **Primary irritant effect:**
- **On the skin:** Slight irritant effect on skin and mucous membranes.
- **On the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Subacute to chronic toxicity:**
Inhalation of concentrated vapors as well as oral intake will lead to anaesthesia-like conditions and headache, dizziness, etc.
- **Additional toxicological information:**
The product is not subject to classification according to internally approved calculation methods for preparations:
When used and handled according to specifications, the product does not have any harmful effects.
- **Carcinogenic categories**

· 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.
Skin contact.
Eye contact.

- **Acute effects (acute toxicity, irritation and corrosivity):** Irritating to eyes.
- **Repeated dose toxicity:** No relevant information available.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
Carc. 2
- **Carcinogenicity:** Suspected of causing cancer.
- **Reproductive toxicity:** Based on available data, the classification criteria are not met.
- **STOT-single exposure:** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure:** Based on available data, the classification criteria are not met.

(Cont'd. on page 9)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date December 17, 2015

Reviewed on December 17, 2015

Trade name: Defense Technology 5146 - First Defense® Inert Training Unit MK-4 Foam OC Aerosol

· **Aspiration hazard:** Based on available data, the classification criteria are not met.

(Cont'd. of page 8)

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No relevant information available.
- **Persistence and degradability:** No relevant information available.
- **Behavior in environmental systems**
- **Bioaccumulative potential:** No relevant information available.
- **Mobility in soil:** No relevant information available.
- **Additional ecological information**
- **General notes:**
Negative ecological effects are, according to the current state of knowledge, not expected.
Due to available data on eliminability/decomposition and bioaccumulation potential, a prolonged damage of the environment is unlikely.
- **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. 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.

14 Transport information

- | | |
|----------------------------------|-------------------------|
| · UN-Number | |
| · DOT, ADR, IMDG, IATA | UN1950 |
| · UN proper shipping name | |
| · DOT | Aerosols, non-flammable |
| · ADR | 1950 AEROSOLS |
| · IMDG | AEROSOLS |
| · IATA | AEROSOLS, non-flammable |

(Cont'd. on page 10)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date December 17, 2015

Reviewed on December 17, 2015

Trade name: Defense Technology 5146 - First Defense® Inert Training Unit MK-4 Foam OC Aerosol

(Cont'd. of page 9)

· **Transport hazard class(es)**

· **DOT**



· **Class** 2.2
 · **Label** 2.2

· **ADR**



· **Class** 2.2 5A
 · **Label** 2.2

· **IMDG, IATA**



· **Class** 2.2
 · **Label** 2.2

· **Packing group**
 · **DOT, ADR, IMDG, IATA** Not regulated.

· **Environmental hazards**
 · **Marine pollutant:** No

· **Special precautions for user** Not applicable.
 · **Danger code (Kemler):** -
 · **EMS Number:** F-D,S-U

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

· **Transport/Additional information:**

· **ADR**
 · **Excepted quantities (EQ)** Code: E0
 Not permitted as Excepted Quantity

· **UN "Model Regulation"** UN 1950 AEROSOLS, 2.2

(Cont'd. on page 11)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date December 17, 2015

Reviewed on December 17, 2015

Trade name: Defense Technology 5146 - First Defense® Inert Training Unit MK-4 Foam OC Aerosol

(Cont'd. of page 10)

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 304 (emergency release notification):**

None of the ingredients are listed.

· **Sections 311/312 (hazardous chemical threshold planning quantity in pounds):**

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:**

111-42-2 | 2,2'-iminodiethanol

68603-42-9 | coconut diethanolamide

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

None of the ingredients are listed.

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

None of the ingredients are listed.

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

64-17-5 | ethanol

· **Carcinogenic categories**

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

None of the ingredients are listed.

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

67-63-0 | propan-2-ol

3

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 substance listings**

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

All ingredients are listed.

(Cont'd. on page 12)

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

Printing date December 17, 2015

Reviewed on December 17, 2015

Trade name: Defense Technology 5146 - First Defense® Inert Training Unit MK-4 Foam OC Aerosol

(Cont'd. of page 11)

· **Canadian Ingredient Disclosure list (limit 0.1%):**

64-17-5	ethanol
---------	---------

· **Canadian Ingredient Disclosure list (limit 1%):**

None of the ingredients are listed.

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** December 17, 2015 / -

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (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
 EINECS: European Inventory of Existing Commercial Chemical Substances
 ELINCS: European List of Notified Chemical Substances
 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
 NIOSH: National Institute for Occupational Safety
 OSHA: Occupational Safety & Health
 TLV: Threshold Limit Value
 PEL: Permissible Exposure Limit
 REL: Recommended Exposure Limit
 BEI: Biological Exposure Limit
 Press. Gas: Gases under pressure: Compressed gas
 Flam. Liq. 2: Flammable liquids, Hazard Category 2
 Acute Tox. 4: Acute toxicity, Hazard Category 4
 Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
 Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
 Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
 Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A
 Carc. 2: Carcinogenicity, Hazard Category 2
 STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
 STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2

· **Sources**

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