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

Printing date: April 12, 2016

Revision: April 12, 2016



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Printing date: April 12, 2016

Revision: April 12, 2016

Trade name: First Defense® Inert MK-4 Stream Aerosol

(Cont'd. of page 1)

Classification system
 NFPA ratings (scale 0 - 4)

0 0 1Health = 0 Fire = 0 Reactivity = 1

· HMIS-ratings (scale 0 - 4)

HEALTHImage: OFIREImage: OFIREFire = 0REACTIVITYReactivity = 1

3 Composition/information on ingredients

· Chemical characterization: Mixtures

	· Components:			
64-17-5		Flam. Liq. 2, H225 Eye Irrit. 2A, H319	≤10%	
811-97-2	Norflurane	Press. Gas, H280 Simple Asphyxiant	≤10%	

· Additional information:

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

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

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.

· 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:

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:

Headache Dizziness Nausea Cramp Thirst

Disorientation

(Cont'd. on page 3)

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

Printing date: April 12, 2016

Revision: April 12, 2016

Trade name: First Defense® Inert MK-4 Stream Aerosol

(Cont'd. of page 2)

- · Danger: Condition may deteriorate with alcohol consumption.
- Indication of any immediate medical attention and special treatment needed:

May produce a narcotic effect.

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

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.

Wear fully protective suit.

• Additional information: Use large quantities of foam as it is partially destroyed by the product.

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.

Ensure adequate ventilation.

- Environmental precautions: No special measures required.
- Methods and material for containment and cleaning up:
- Pick up mechanically.
- Dispose contaminated material as waste according to item 13.

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:

Avoid splashes or spray in enclosed areas.

Use only in well ventilated areas.

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

(Cont'd. on page 4)

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

Printing date: April 12, 2016

Revision: April 12, 2016

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Trade name: First Defense® Inert MK-4 Stream Aerosol
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	(Cont'd. of page 3
[•] Conditions for safe storage, including any	
· Storage	neompationtico
Requirements to be met by storerooms and re	
Observe official regulations on storing packagings with pressurized containers.	
Information about storage in one common sto	
Further information about storage conditions:	and many local to the measure of the humsting
Store in a cool place. Heat will increase pressure Specific end use(s): No relevant information a	
Specific end use(s): No relevant information available.	
B Exposure controls/personal protection	
· Control parameters	
Components with limit values that require mo	nitoring at the workplace:
	ntities of materials with critical values that have to b
monitored at the workplace.	
Exposure controls	
Engineering measures Provide adequate ventila	ition.
Personal protective equipment:	
General protective and hygienic measures:	
The usual precautionary measures for handling c	hemicals should be followed.
No relevant information available.	
Keep away from foodstuffs, beverages and feed. Wash hands before breaks and at the end of world	
Engineering controls: No relevant information a	
Breathing equipment:	
Not required under normal conditions of use.	
For spills, respiratory protection may be advisable	3.
Use suitable respiratory protective device when h	igh concentrations are present.
Protection of hands:	
Not required under normal conditions of use.	and a lacking with
Wear protective gloves to handle contents of dam	laged of leaking units.
Material of gloves	ly depend on the material, but also on further marks of
	factu rer. As the product is a preparation of severa
	can not be calculated in advance and has therefore to b
checked prior to the application.	
Penetration time of glove material	
The exact break through time has to be found out	t by the manufacturer of the protective gloves and has t
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	
	(Cont'd on name

(Cont'd. on page 5)

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

Printing date: April 12, 2016

Revision: April 12, 2016

Trade name: First Defense® Inert MK-4 Stream Aerosol

(Cont'd. of page 4)

· Eye protection:



Safety glasses

Follow relevant national guidelines concerning the use of protective eyewear.

• Body protection: Protection may be required for spills.

Limitation and supervision of exposure into the environment

No relevant information available.

Information on basic physical and	l chemical properties	
Appearance:		
Form:	Aerosol	
Color:	Colorless	
Odor: Odor threshold:	Alcohol-like Not determined.	
pH-value:	Not determined.	
Melting point/Melting range:	Not determined.	
Boiling point/Boiling range:	Not applicable, as aerosol.	
Flash point:	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/cm ³ (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.	

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

Printing date: April 12, 2016

Revision: April 12, 2016

Trade name: First Defense® Inert MK-4 Stream Aerosol

(Cont'd. of page 5)

Kinematic: Other information Not determined. No relevant information available.

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: No dangerous reactions known.

· 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: Slight irritant effect on eyes.

· 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.

· IARC (International Agency for Research on Cancer):

64-17-5 ethanol

• 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): From product as supplied: None.

• Repeated dose toxicity: From product as supplied: None.

CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)

· 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: 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 7)

1

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

Printing date: April 12, 2016

Revision: April 12, 2016

Trade name: First Defense® Inert MK-4 Stream Aerosol

(Cont'd. of page 6)

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:

Generally not hazardous for water

This statement was deduced from the properties of the single components.

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

- [•] 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:

Smaller quantities can be disposed of with household waste.

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.

[·] 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

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

Printing date: April 12, 2016

Trade name: First Defense® Inert MK-4 Stream Aerosol

Revision: April 12, 2016

(Cont'd. of page 7) Transport hazard class(es) · DOT · Class 2.2 2.2 · Label · ADR · Class 2 5A Gases · Label 2.2 · IMDG, IATA 2.2 · Class 2.2 · Label Packing group This UN-number is not assigned a packing group. · Environmental hazards · Marine pollutant: No · Special precautions for user Warning: Gases 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.

15 Regulatory information

 Safety, health and environmental regulations/legislation specific for the substance or mixture
 United States (USA)

· SARA

• Section 355 (extremely hazardous substances):

None of the ingredients are listed.

• Section 313 (Specific toxic chemical listings):

None of the ingredients are listed.

(Cont'd. on page 9)

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

Printing date: April 12, 2016

Revision: April 12, 2016

Trade name: First Defense® Inert MK-4 Stream Aerosol

	(Cont'd. of pag
	(Toxic Substances Control Act)
	redients are listed.
· Chem	sition 65 (California) icals known to cause cancer: ol - listing refers specifically to alcoholic beverage consumption and is not applicable for product.
64-17-	5 ethanol
· Chem	icals known to cause reproductive toxicity for females:
None	of the ingredients are listed.
· Chem	icals known to cause reproductive toxicity for males:
None	of the ingredients are listed.
	icals known to cause developmental toxicity: ol - listing refers specifically to alcoholic beverage consumption and is not applicable for product.
64-17-	5 ethanol
	nogenic categories
•	Environmental Protection Agency):
None	of the ingredients are listed.
	(International Agency for Research on Cancer):
64-17-	5 ethanol
· NIOSH	I-Ca (National Institute for Occupational Safety and Health):
None	of the ingredients are listed.
· Canac · Canac	la lian substance listings
	lian Domestic Substances List (DSL):
All ing	redients are listed.
· Canac	lian Ingredient Disclosure list (limit 0.1%):
64-17-	5 ethanol
Canac	lian 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 02/16/2016 / -

· 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)

(Cont'd. on page 10)

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

Printing date: April 12, 2016

Revision: April 12, 2016

Trade name: First Defense® Inert MK-4 Stream Aerosol

(Cont'd. of page 9)

HMIS: Hazardous Materials Identification System (USA) LC50: Lethal concentration, 50 percent D50: 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: Compressed gas Flam. Liq. 2: Flammable liquids, Hazard Category 2 Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A **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

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