Printing date July 29, 2015

Reviewed on July 29, 2015

1 Identification

· Product identifier

· Trade name: First Defense®, OC/CS, Stream

· Article number: 56025, 56035, 56045, 56095

· Recommended use and restriction on use

· Recommended use: Crowd Control Device

· 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.

(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

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.



GHS05 Corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

STOT SE 3 H335 May cause respiratory irritation.

· Additional information:

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

0 percent of the mixture consists of ingredient(s) of unknown toxicity.

- · Label elements
- · GHS label elements

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

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· Hazard pictograms









GHS04 GHS05 GHS07 GHS08

Signal word Danger

· Hazard-determining components of labeling:

Oleoresin Capsicum

[(2-chlorophenyl)methylene]malononitrile

· Hazard statements

H280 Contains gas under pressure; may explode if heated.

H315 Causes skin irritation.

H318 Causes serious eve damage.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H317 May cause an allergic skin reaction. H335 May cause respiratory irritation.

Precautionary statements

P284 In case of inadequate ventilation wear respiratory protection.

P261 Avoid breathing mist/vapors/spray. P264 Wash thoroughly after handling.

P280 Wear protective gloves / eye protection / face protection.

P272 Contaminated work clothing must not be allowed out of the workplace.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P310 Immediately call a poison center/doctor.

P342+P311 If experiencing respiratory symptoms: Call a poison center/doctor.

P304+P341 If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for

breathing.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P302+P352 If on skin: Wash with plenty of water.

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.

· Classification system:

· NFPA ratings (scale 0 - 4)



Health = 1 Fire = 1 Reactivity = 1

· HMIS-ratings (scale 0 - 4)



^{* -} Indicates a long term health hazard from repeated or prolonged exposures.

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- Other hazards
- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · **vPvB**: Not applicable.

3 Composition/information on ingredients

- · Chemical characterization: Mixtures
- **Description**: Mixture of the substances listed below with nonhazardous additions.

· Dangerous components:		
112-34-5	2-(2-butoxyethoxy)ethanol	50-100%
	(*) Eye Irrit. 2, H319	
57-55-6	Propylene Glycol	10-25%
8023-77-6	Oleoresin Capsicum	2.5-10%
	Eye Dam. 1, H318 Acute Tox. 4, H302; Skin Irrit. 2, H315	
7727-37-9		2.5-10%
	Press. Gas, H281	
2698-41-1	[(2-chlorophenyl)methylene]malononitrile	≤ 2.5%
	Acute Tox. 3, H301; Acute Tox. 2, H330 Resp. Sens. 1, H334 Acute Tox. 4, H312; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335	

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:

Position and transport stably on side.

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

Take affected persons out into the fresh air.

· After inhalation:

Supply fresh air.

Seek immediate medical advice.

If experiencing respiratory symptoms: Call a poison center/doctor.

Provide oxygen treatment if affected person has difficulty breathing.

In case of unconsciousness place patient stably in side position for transportation.

· After skin contact:

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

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· After eye contact:

Protect unharmed eye.

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.

· Information for doctor:

· Most important symptoms and effects, both acute and delayed

Asthma attacks

Nausea

Gastric or intestinal disorders

Breathing difficulty

Coughing

Allergic reactions

Strong irritant with the danger of severe eye injury.

Irritating to respiratory system and skin.

Disorientation

· Danger

Danger of impaired breathing.

Causes serious eye damage.

Possible risk of irreversible effects.

Indication of any immediate medical attention and special treatment needed

Severe allergic skin reaction, bronchial spasms and anaphylactic shock are possible.

Medical supervision for at least 48 hours.

If necessary oxygen respiration treatment.

Later observation for pneumonia and pulmonary edema.

Treat skin and mucous membrane with antihistamine and corticoid preparations.

Contains [(2-chlorophenyl)methylene]malononitrile. May produce an allergic reaction.

If medical advice is needed, have product container or label at hand.

In cases of irritation to the lungs, initial treatment with cortical steroid inhalants.

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

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

Evacuate area and fight fire from from the upwind side.

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Cool endangered product with water spray.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

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

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.

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation.

Isolate area and prevent access.

- · Environmental precautions: No special measures required.
- · Methods and material for containment and cleaning up:

Allow to evaporate.

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:

Keep respiratory protective device available.

- · 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.

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 further relevant information available.

8 Exposure controls/personal protection

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

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· Control parameters				
· Components with limit values that require monitoring at the workplace:				
112-34-5 2-(2-butoxyethoxy)ethanol				
TLV (USA)	Long-term value: 67.5* mg/m³, 10* ppm *Inhalable fraction and vapor			
57-55-6 Propyle	ene 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			
7727-37-9 nitro	7727-37-9 nitrogen			
TLV (USA)	withdrawn TLV, see App. F; simple asphyxiant			
EL (Canada)	Simple asphyxiant			
LMPE (Mexico)	Asfixiante simple			
2698-41-1 [(2-c	2698-41-1 [(2-chlorophenyl)methylene]malononitrile			
PEL (USA)	Long-term value: 0.4 mg/m³, 0.05 ppm			
REL (USA)	Ceiling limit value: 0.4 mg/m³, 0.05 ppm Skin			
TLV (USA)	Ceiling limit value: 0.39 mg/m³, 0.05 ppm Skin			
EL (Canada)	Ceiling limit value: 0.05 ppm Skin			
EV (Canada)	Ceiling limit value: 0.4 mg/m³, 0.05 ppm Skin			
LMPE (Mexico)	Ceiling limit value: 0.05 ppm A4, PIEL			

· Additional information:

The lists that were valid during the creation were used as basis.

No further relevant information available.

- · 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.

- Engineering controls: No further relevant information available.
- · Breathing equipment:

Wear positive pressure NIOSH or European EN149 vapor respirators when deploying product in large quantities.

For spills, respiratory protection may be advisable.

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· Protection of hands:



Protective gloves

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

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

· 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:

Protective work clothing

Protection may be required for spills.

Limitation and supervision of exposure into the environment

No further relevant information available.

9 Physical and chemical properties

- · Information on basic physical and chemical properties
- · General Information
- · Appearance:

Form: Aerosol Color: Transparent

· **Odor:** Pungent, makes eyes water

Odor threshold: Not determined.pH-value: Not determined.

· Change in condition

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

Flammability (solid, gaseous): Not applicable.Auto-ignition temperature: Not determined.

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• **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. · Oxidizing properties Non-oxidizing. · Vapor pressure: Not determined. · Density: Not determined. · Relative density Not determined. · Vapour 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 further relevant information available.

10 Stability and reactivity

- · Reactivity No further relevant information available.
- · Chemical stability
- · Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

· Possibility of hazardous reactions

Danger of receptacles bursting because of high vapor pressure if heated.

Reacts with strong oxidizing agents.

Toxic fumes may be released if heated above the decomposition point.

- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products:

Carbon monoxide and carbon dioxide

Halogenated hydrocarbons

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11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:

Acute	Acute toxicity.				
· LD/LC5	· LD/LC50 values that are relevant for classification:				
112-34-5 2-(2-butoxyethoxy)ethanol					
Oral	LD50	5660 mg/kg (rat)			
Dermal	LD50	4000 mg/kg (rabbit)			
8023-77	8023-77-6 Oleoresin Capsicum				
Oral	LD50	3000 mg/kg (rat)			
Dermal	LD50	>2500 mg/kg (mouse)			
2698-41	2698-41-1 [(2-chlorophenyl)methylene]malononitrile				
Oral	LD50	178 mg/kg (rat)			

- · Primary irritant effect:
- · on the skin: Irritant to skin and mucous membranes.
- on the eye: Strong irritant with the danger of severe eye injury.
- Additional toxicological information:

Toxic and/or corrosive effects may be delayed up to 24 hours.

Danger through skin absorption.

- Carcinogenic categories
- · NTP (National Toxicology Program)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

· Probable Routes of Exposure

Inhalation.

Eye contact.

Skin contact.

· Acute effects (acute toxicity, irritation and corrosivity):

May cause sensitisation by inhalation and skin contact.

Causes serious eye damage.

Irritating to skin.

Irritating to respiratory system.

- · Repeated Dose Toxicity: No further relevant information available.
- 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-repeated exposure Based on available data, the classification criteria are not met.
- · Aspiration hazard Based on available data, the classification criteria are not met.

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12 Ecological information

- · Toxicity
- · Aquatic toxicity:

2698-41-1 [(2-chlorophenyl)methylene]malononitrile

EC50 0.2-0.3 mg/kg (Oncorhynchus mykiss)

- Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · **Mobility in soil** No further relevant information available.
- · Additional ecological information:
- · General notes: Generally not hazardous for water
- Other adverse effects No further 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. 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:

Packagings that cannot be cleansed are to be disposed of in the same manner as the product.

· **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, containing substances in

Division 6.1, Packing Group I or II (Tear Gas Devices)

· ADR 1950 AEROSOLS (Tear Gas Devices)

• IMDG AEROSOLS (Tear Gas Devices)

· IATA AEROSOLS, non-flammable, containing substances in

Division 6.1, Packing Group I or II (Tear Gas Devices)

(CARGO AIRCRAFT ONLY)

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Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200)

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· Transport hazard class(es)

· DOT



· Class 2.2 · Label 2.2, 6.1

· ADR



• Class 2 5T Gases • Label 2 .2+6.1

·IMDG



· Class 2.2 · Label 2.2/6.1

· IATA



· Class 2.2 · Label 2.2 (6.1)

· Packing group

· DOT, ADR, IMDG, IATA Not Regulated

· Environmental hazards:

· Marine pollutant:

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.

· Transport/Additional information:

· DOT

• **Quantity limitations**On passenger aircraft/rail: Forbidden
On cargo aircraft only: Forbidden

· ADR

• Excepted quantities (EQ) Code: E0

Not permitted as Excepted Quantity

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· IMDG

Limited quantities (LQ)Excepted quantities (EQ)Code: E0

Not permitted as Excepted Quantity

· UN "Model Regulation": UN1950, Aerosols, 2.2 (6.1)

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 is 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:

None of the ingredients are listed.

· 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 is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

- Carcinogenic categories
- · EPA (Environmental Protection Agency)

None of the ingredients is listed.

· IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

TLV (Threshold Limit Value established by ACGIH)

2698-41-1 [(2-chlorophenyl)methylene]malononitrile

A4

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

None of the ingredients is listed.

· State Right to Know Listings

None of the ingredients is listed.

- · Canadian substance listings:
- · Canadian Domestic Substances List (DSL)

All ingredients listed on DSL or NDSL.

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Trade name: First Defense®, OC/CS, Stream

	(Contd. of page 12)	
· Canadian Ingredient Disclosure list (limit 0.1%)		
None of the ingredients is listed.		
· Canadian Ingredient Disclosure list (limit 1%)		
112-34-5	2-(2-butoxyethoxy)ethanol	
57-55-6	Propylene Glycol	
2698-41-1	[(2-chlorophenyl)methylene]malononitrile	

· Other regulations, limitations and prohibitive regulations

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

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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 July 29, 2015 / -

· Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

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

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

ACGIH: American Conference of Governmental Industrial Hygienists

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)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Press. Gas: Gases under pressure: Compressed gas

Press. Gas: Gases under pressure: Refrigerated liquefied gas

Acute Tox. 3: Acute toxicity, Hazard Category 3

Acute Tox. 4: Acute toxicity, Hazard Category 4

Acute Tox. 2: Acute toxicity, Hazard Category 2

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

Resp. Sens. 1: Sensitisation - Respirat., Hazard Category 1

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

Sources

Website, European Chemicals Agency (http://http://echa.europa.eu/)

Website, US EPA Substance Registry Services (http://http://ofmpub.epa.gov/sor internet/registry/substreg/home/overview/home.do)

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Website, Chemical Abstracts Registry, Ammerican Chemical Society (https://www.cas.org)
Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: ISBN: 978-0-470-07488-6
Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.

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