

**Safety Data Sheet**  
 according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and  
 OSHA GHS



Printing date 14.01.2015

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### SECTION 1: Identification of the substance/mixture and of the company/ undertaking

- **1.1 Product identifier** **SDS 910**
- **Trade name:** TopCat Blo-Off Aerosol
- **Article number:** 3529
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
 No further relevant information available.
- **Application of the substance / the mixture** Surface cleaning
- **1.3 Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**  
 Palmero Health Care  
 120 Goodwin Place  
 Stratford, CT 06615  
 Phone: (203) 377-6424  
 Email: customerservice@palmerohealth.com
- **1.4 Emergency telephone number:**  
 ChemTel Inc.  
 (800)255-3924, +1 (813)248-0585

### SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**  
 Classifications listed also are applicable to the OSHA GHS Hazard Communication Standard (29CFR1910.1200).  
 The following Hazard Statements are applicable only according to OSHA regulations within the United States. These Statements are not applicable for the CLP regulation (1272/2008/EC) in the EU: H280.
-  GHS 04 gas cylinder  
 Press. Gas H280 Contains gas under pressure; may explode if heated.
-  flame  
 Flam. Aerosol 1 H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**  
 R44: Risk of explosion if heated under confinement.
- **Information concerning particular hazards for human and environment:**  
 The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.  
 Warning! Pressurised container.
- **Classification system:**  
 The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

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The classification is in accordance with the latest editions of international substances lists, and is supplemented by information from technical literature and by information provided by the company.

## 2.2 Label elements

### Labelling according to Regulation (EC) No 1272/2008

The following Hazard Statements are applicable only to the EU regulations and not the US GHS regulation: H222-H229.

The product is additionally classified and labelled according to the Globally Harmonized System within the United States (GHS).

The product is classified and labelled according to the CLP regulation.

### Hazard pictograms

The following pictograms are only for use within the United States (OSHA): H280.



GHS 04 gas cylinder



GHS02

### Signal word Danger

### Hazard statements

The following Hazard Statements are applicable only according to OSHA regulations within the United States. These Statements are not applicable for the CLP regulation (1272/2008/EC) in the EU: H280.

H280 Contains gas under pressure; may explode if heated.

H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.

### Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P251 Pressurized container: Do not pierce or burn, even after use.

P211 Do not spray on an open flame or other ignition source.

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

### Additional information:

EUH044 Risk of explosion if heated under confinement.

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use.

1,5 % by mass of the contents are flammable

### Hazard description:

### WHMIS-symbols:

B5 - Flammable aerosol

D2A - Very toxic material causing other toxic effects



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- **NFPA ratings (scale 0 - 4)**



Health = 1  
Fire = 4  
Reactivity = 1

- **HMIS-ratings (scale 0 - 4)**



Health = \*1  
Fire = 4  
Reactivity = 1

\* - Indicates a long term health hazard from repeated or prolonged exposures.

- **HMIS Long Term Health Hazard Substances**

None of the ingredients are listed.

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

- **Explosive Product Notice**

PREVENTION OF ACCIDENTS IN THE USE OF EXPLOSIVES - The prevention of accidents in the use of explosives is a result of careful planning and observance of the best known practices. The explosives user must remember that he is dealing with a powerful force and that various devices and methods have been developed to assist him in directing this force. He should realize that this force, if misdirected, may either kill or injure both him and his fellow workers.

WARNING - All explosives are dangerous and must be carefully handled and used following approved safety procedures either by or under the direction of competent, experienced persons in accordance with all applicable federal, state, and local laws, regulations, or ordinances. If you have any questions or doubts as to how to use any explosive product, DO NOT USE IT before consulting with your supervisor, or the manufacturer, if you do not have a supervisor. If your supervisor has any questions or doubts, he should consult the manufacturer before use.

### SECTION 3: Composition/information on ingredients

- **3.2 Mixtures**

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

- **Dangerous components:**

CAS: 68476-85-7	Petroleum gases, liquefied	50-100%
EINECS: 270-704-2	F+ R12	
Index number: 649-202-00-6	Flam. Gas 1, H220	
	Press. Gas C, H280	

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CAS: 811-97-2 EINECS: 212-377-0	Norflurane R44 ⚠ Press. Gas C, H280	10-25%
CAS: 115-10-6 EINECS: 204-065-8 Index number: 603-019-00-8	dimethyl ether ⚠ F+ R12 ⚠ Flam. Gas 1, H220 ⚠ Press. Gas C, H280	≤ 2,5%
CAS: 74-98-6 EINECS: 200-827-9 Index number: 601-003-00-5	propane ⚠ F+ R12 ⚠ Flam. Gas 1, H220 ⚠ Press. Gas C, H280	≤ 2,5%

• **Additional information:** For the wording of the listed risk phrases refer to section 16.

### SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:** Take affected persons out into the fresh air.
- **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:**  
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; call for medical help immediately.
- **4.2 Most important symptoms and effects, both acute and delayed**  
Headache  
Breathing difficulty  
Dizziness  
Frostbite
- **Hazards** Danger of impaired breathing.
- **4.3 Indication of any immediate medical attention and special treatment needed**  
Medical supervision for at least 48 hours.  
Treat frost-bitten areas appropriately.

### SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **For safety reasons unsuitable extinguishing agents:** None.
- **5.2 Special hazards arising from the substance or mixture**  
Formation of toxic gases is possible during heating or in case of fire.  
Danger of receptacles bursting because of high vapour pressure when heated.

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- **5.3 Advice for firefighters**
- **Protective equipment:**  
Wear self-contained respiratory protective device.  
Wear fully protective suit.
- **Additional information**  
Eliminate all ignition sources if safe to do so.  
Leaking gas fire: Do not extinguish, unless leak can be stopped safely.

### SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**  
Ensure adequate ventilation  
Remove ignition sources.  
Protect from heat  
For large spills, use respiratory protective device against the effects of fumes/dust/aerosol.  
For large spills, wear protective clothing.
- **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **6.3 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.
- **6.4 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.

### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**  
Use only in well ventilated areas.  
Do not spray on flame or other ignition sources. No smoking.  
Avoid splashes or spray in enclosed areas.  
Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
- **Information about fire - and explosion protection:**  
Extremely flammable aerosol.  
Keep ignition sources away - Do not smoke.  
Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50 °C, i.e. electric lights. Do not pierce or burn, even after use.  
Do not spray onto a naked flame or any incandescent material.  
Emergency cooling must be available in case of nearby fire.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**  
Avoid storage near extreme heat, ignition sources or open flame.  
Observe official regulations on storing packagings with pressurised containers.

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- **Information about storage in one common storage facility:**  
 Store away from foodstuffs.  
 Store away from oxidising agents.
- **Further information about storage conditions:**  
 Store in a cool place. Heat will increase pressure and may lead to the receptacle bursting.
- **7.3 Specific end use(s)** No further relevant information available.

### SECTION 8: Exposure controls/personal protection

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

#### · 8.1 Control parameters

- **Ingredients with limit values that require monitoring at the workplace:**

#### **68476-85-7 Petroleum gases, liquefied**

PEL (USA)	Long-term value: 1800 mg/m <sup>3</sup> , 1000 ppm
REL (USA)	Long-term value: 1800 mg/m <sup>3</sup> , 1000 ppm
TLV (USA)	refer to Appendix F: minimal oxygen content
EL (Canada)	Short-term value: 1250 ppm Long-term value: 1000 ppm
EV (Canada)	Long-term value: 1,000 ppm

#### **811-97-2 Norflurane**

WEEL (USA)	Long-term value: 1000 ppm
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#### **115-10-6 dimethyl ether**

IOELV (EU)	Long-term value: 1920 mg/m <sup>3</sup> , 1000 ppm
WEEL (USA)	Long-term value: 1000 ppm
EL (Canada)	Long-term value: 1000 ppm

#### **74-98-6 propane**

PEL (USA)	Long-term value: 1800 mg/m <sup>3</sup> , 1000 ppm
REL (USA)	Long-term value: 1800 mg/m <sup>3</sup> , 1000 ppm
TLV (USA)	refer to Appendix F
EL (Canada)	Long-term value: 1000 ppm
EV (Canada)	Long-term value: 1,000 ppm

- **DNELs** No further relevant information available.
- **PNECs** No further relevant information available.
- **Additional information:** The lists valid during the making were used as basis.

#### · 8.2 Exposure controls

##### · **Personal protective equipment:**

##### · **General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.  
 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.

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Avoid contact with the eyes and skin.

- **Respiratory protection:**

Not required under normal conditions of use.

For spills, respiratory protection may be advisable.

- **Protection of hands:** Wear protective gloves to handle contents of damaged or leaking units.

- **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** Avoid release to the environment.

- **Risk management measures**

See Section 7 for additional information.

No further relevant information available.

## SECTION 9: Physical and chemical properties

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

- **General Information**

- **Appearance:**

Form:	Aerosol
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Colour:	Colourless
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- **Odour:** Ether-like

- **Odour threshold:** Not determined.

- **pH-value:** Not determined.

- **Change in condition**

Melting point/Melting range:	Not applicable, as aerosol.
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Boiling point/Boiling range:	-15 °F / -26 °C
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- **Flash point:** Not applicable, as aerosol.

- **Flammability (solid, gaseous):** Extremely flammable aerosol.

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

- **Decomposition temperature:** Not determined.

- **Self-igniting:** Product is not self-igniting.

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

- **Explosion limits:**

Lower:	1,8 Vol %
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Upper:	18 Vol %
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- **Vapour pressure at 54,4 °C:** 158 psig

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- **Density:** Not determined.
- **Relative density** Not determined.
- **Vapour density** Not determined.
- **Evaporation rate** Not applicable.
- **Solubility in / Miscibility with water:** Not miscible or difficult to mix.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
  - Dynamic:** Not determined.
  - Kinematic:** Not determined.
- **9.2 Other information** No further relevant information available.

### SECTION 10: Stability and reactivity

- **10.1 Reactivity**
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**  
 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
 Danger of receptacles bursting because of high vapour pressure when heated.  
 Pressurized container: Do not pierce or burn, even after use.
- **10.3 Possibility of hazardous reactions**  
 Extremely flammable aerosol.  
 Can form explosive mixtures in air if heated above flash point and/or when sprayed or atomised.  
 Used empty containers may contain product gases which form explosive mixtures with air.  
 Toxic fumes may be released if heated above the decomposition point.
- **10.4 Conditions to avoid**  
 Keep ignition sources away - Do not smoke.  
 Store away from oxidising agents.
- **10.5 Incompatible materials:** Oxidizing agents
- **10.6 Hazardous decomposition products:**  
 Under fire conditions only:  
 Carbon monoxide and carbon dioxide  
 Danger of toxic fluorine based pyrolysis products.

### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
  - **on the skin:** No irritant effect.
  - **on the eye:** No irritating effect.
- **Sensitisation:** No sensitising effects known.

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- **Additional toxicological information:**

When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

## SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Due to mechanical actions of the product (e.g. agglutinations) damages may occur.
- **Additional ecological information:**
- **General notes:**  
Due to the consistence and the low watersolubility of the product a bioavailability is not probable.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

## SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**  
Must not be disposed together with household garbage. Do not allow product to reach sewage system. Incinerate in accordance with local, state and federal 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 packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

## SECTION 14: Transport information

- **14.1 UN-Number**
- **DOT, ADR, IMDG, IATA** UN1950
- **14.2 UN proper shipping name**
- **DOT** Aerosols
- **ADR** 1950 AEROSOLS
- **IMDG, IATA** AEROSOLS

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- 14.3 Transport hazard class(es)

- DOT



- Class 2 Gases.
    - Label 2.1

- ADR



- Class 2 5F Gases.
    - Label 2.1

- IMDG, IATA



- Class 2 Gases.
    - Label 2.1
  - 14.4 Packing group Not regulated for transport.
  - DOT, ADR, IMDG, IATA Not Regulated
  - 14.5 Environmental hazards:
  - Marine pollutant: No
  - 14.6 Special precautions for user Warning: Gases.
  - EMS Number: F-D,S-U
  - 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable.
  - Transport/Additional information:
  - ADR
  - Limited quantities (LQ) 1L
  - Excepted quantities (EQ) Code: E0  
Not permitted as Excepted Quantity
  - Transport category 2
  - Tunnel restriction code D
  - IMDG
  - Limited quantities (LQ) 1L
  - Excepted quantities (EQ) Code: E0  
Not permitted as Excepted Quantity
  - UN "Model Regulation": UN1950, AEROSOLS, 2.1

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**SECTION 15: Regulatory information**

- **15.1 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.

- **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

- **Proposition 65 (California):**

- **Chemicals known to cause cancer:**

None of the ingredients is 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 are listed.

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

None of the ingredients are listed.

- **Carcinogenic Categories**

- **EPA (Environmental Protection Agency)**

None of the ingredients are listed.

- **IARC (International Agency for Research on Cancer)**

None of the ingredients are listed.

- **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients are listed.

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

None of the ingredients are listed.

- **Canada**

- **Canadian Domestic Substances List (DSL)**

All ingredients are listed.

- **Canadian Ingredient Disclosure list (limit 0.1%)**

None of the ingredients are listed.

- **Canadian Ingredient Disclosure list (limit 1%)**

None of the ingredients are listed.

- **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.

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· **Substances of very high concern (SVHC) according to REACH, Article 57**

None of the ingredients are listed.

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

**SECTION 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.

· **Relevant phrases**

H220 Extremely flammable gas.

H280 Contains gas under pressure; may explode if heated.

R12 Extremely flammable.

R44 Risk of explosion if heated under confinement.

· **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

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)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

WHMIS: Workplace Hazardous Materials Information System (Canada)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

Flam. Gas 1: Flammable gases, Hazard Category 1

Flam. Aerosol 1: Flammable aerosols, Hazard Category 1

Press. Gas C: Gases under pressure: Compressed gas

· **Sources**

SDS Prepared by:

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