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

· 1.1 Product identifier

· Trade name: Boeshield T-9® Aerosol

· Article number: L-11911

• 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 Protective coating
- 1.3 Details of the supplier of the Safety Data Sheet
- Manufacturer/Supplier:

PMS Products, Inc.

76 Veterans Drive, STE 110

Holland, MI 49423

Phone: (616) 355-6615

1.4 Emergency telephone number:

CHEMTREC

1-800-424-9300 (US/Canada)

+01 703-527-3887 (International)

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).



Flam. Aerosol 2 H223-H229 Flammable aerosol. Pressurised container: May burst if heated.

Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.

· Classification according to Directive 67/548/EEC or Directive 1999/45/EC

Xn; Harmful

R65: Harmful: may cause lung damage if swallowed.

R10: Flammable.

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.

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.

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· 2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

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



health hazard (US GHS only)



GHS02

· Signal word Warning

Hazard-determining components of labelling:

Distillates (petroleum), hydrotreated light Naphtha (petroleum), hydrotreated heavy

· 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: H304.

H304 May be fatal if swallowed and enters airways

H223-H229 Flammable aerosol. Pressurised container: May burst if heated.

· Precautionary statements

The following Precautionary Statements are applicable only to the OSHA GHS regulations and not the specific CLP regulation: P301+P310, P331.

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.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

P331 Do NOT induce vomiting.

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

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· Hazard description:

· WHMIS-symbols:

B5 - Flammable aerosol

D2A - Very toxic material causing other toxic effects





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· NFPA ratings (scale 0 - 4)

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Health = 2 Fire = 2 Reactivity = 0

· HMIS-ratings (scale 0 - 4)



- * 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.

SECTION 3: Composition/information on ingredients

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

· Dangerous components:		
CAS: 64742-47-8 EINECS: 265-149-8 Index number: 649-422-00-2	Distillates (petroleum), hydrotreated light Xn R65 ♦ Asp. Tox. 1, H304	25-50%
CAS: 64742-48-9 EINECS: 265-150-3 Index number: 649-327-00-6	Naphtha (petroleum), hydrotreated heavy Xn R65 ♦ Asp. Tox. 1, H304	10-25%
CAS: 8042-47-5 EINECS: 232-455-8	White Mineral Oil X Xn R65 ♦ Asp. Tox. 1, H304	10-25%
CAS: 124-38-9 EINECS: 204-696-9	carbon dioxide ♦ Press. Gas L, H280	2,5-10%
CAS: 68608-26-4 EINECS: 271-781-5	Sulfonic acids sodium salts Xi R36	≤ 2,5%
CAS: 8002-74-2 EINECS: 232-315-6	Paraffin waxes and Hydrocarbon waxes substance with a Community workplace exposure limit	≤ 2,5%

· Additional information:

Note L: The classification as a carcinogen need not apply if it can be shown that the substance contains less than 3 % DMSO extract as measured by IP 346 'Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions - Dimethyl sulphoxide extraction refractive index method', Institute of Petroleum, London. This product meets these requirements.

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For the wording of the listed risk phrases refer to section 16.

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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.

Provide oxygen treatment if affected person has difficulty breathing.

In case of irregular breathing or respiratory arrest provide artificial respiration.

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.

· After eve 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.

A person vomiting while laying on their back should be turned onto their side.

· 4.2 Most important symptoms and effects, both acute and delayed

Breathing difficulty

Dizziness

Coughing

Slight irritant effect on eyes.

Slight irritant effect on skin and mucous membranes.

May cause gastro-intestinal irritation if ingested.

Nausea in case of ingestion.

Disorientation

· Hazards

Danger of pulmonary oedema.

Danger of impaired breathing.

Danger of pneumonia.

· 4.3 Indication of any immediate medical attention and special treatment needed

If swallowed, gastric irrigation with added, activated carbon.

Contains petroleum distillates.

Medical supervision for at least 48 hours.

If necessary oxygen respiration treatment.

If swallowed or in case of vomiting, danger of entering the lungs.

SECTION 5: Firefighting measures

- 5.1 Extinguishing media
- Suitable extinguishing agents:

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

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· For safety reasons unsuitable extinguishing agents: None.

· 5.2 Special hazards arising from the substance or mixture

Danger of receptacles bursting because of high vapour pressure when heated.

Formation of toxic gases is possible during heating or in case of fire.

· 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.

Cool endangered receptacles with water fog or haze.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Remove ignition sources.

Protect from heat

Ensure adequate ventilation

For large spills, wear protective clothing.

For large spills, use respiratory protective device against the effects of fumes/dust/aerosol.

• **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.

Absorb liquid components with liquid-binding material.

Ensure adequate ventilation.

Send for recovery or disposal in suitable receptacles.

Dispose contaminated material as waste according to item 13.

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.

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

Avoid splashes or spray in enclosed areas.

Information about fire - and explosion protection:

Flammable aerosol.

Do not spray onto a naked flame or any incandescent material.

Keep respiratory protective device available.

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.

Emergency cooling must be available in case of nearby fire.

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- · 7.2 Conditions for safe storage, including any incompatibilities
- Storage:
- Requirements to be met by storerooms and receptacles:

Store in cool, dry place.

Observe official regulations on storing packagings with pressurised containers.

Provide ventilation for receptacles.

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

- 6.1 Control p				
· Ingredients with limit values that require monitoring at the workplace:				
64742-47-8 Distillates (petroleum), hydrotreated light				
EL (Canada)	_ (Canada) Long-term value: 200 mg/m³ Skin			
124-38-9 carl	124-38-9 carbon dioxide			
IOELV (EU)	Long-term value: 9000 mg/m³, 5000 ppm			
PEL (USA)	Long-term value: 9000 mg/m³, 5000 ppm			
REL (USA)	Short-term value: 54,000 mg/m³, 30,000 ppm Long-term value: 9000 mg/m³, 5000 ppm			
TLV (USA)	Short-term value: 54,000 mg/m³, 30,000 ppm Long-term value: 9000 mg/m³, 5000 ppm			
EL (Canada)	Short-term value: 15000 ppm Long-term value: 5000 ppm			
EV (Canada)	Short-term value: 54,000 mg/m³, 30,000 ppm Long-term value: 9,000 mg/m³, 5,000 ppm			
8002-74-2 Pa	8002-74-2 Paraffin waxes and Hydrocarbon waxes			
REL (USA)	Long-term value: 2 mg/m³			
TLV (USA)	Long-term value: 2 mg/m³			
EL (Canada)	Long-term value: 2 mg/m³			
EV (Canada)	Long-term value: 2 mg/m³ fume			

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

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- · 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.

Avoid contact with the eyes and skin.

· Respiratory protection:

Not required under normal conditions of use.

Use suitable respiratory protective device when high concentrations are present.

Protection of hands:



Protective gloves

Rubber gloves

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

Nitrile or neoprene gloves are recommended.

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.

· Eve 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 further relevant information available.

· Risk management measures

See Section 7 for additional information.

No further relevant information available.

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SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Appearance:

Form: Aerosol Colour: Colourless

• Odour: Like aromatic solvents

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

· Change in condition

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

Boiling point/Boiling range: Boiling Point Range: 315 ° F / 500 °C.

· **Flash point:** Not applicable, as aerosol.

Flammability (solid, gaseous): Not applicable.
 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: 0,7 Vol % **Upper:** 6 Vol %

Vapour pressure: Not determined.
 Density at 20 °C: 0,84 g/cm³
 Relative density Not determined.
 Vapour density Heavier than air
 Evaporation rate Slower than ether

· 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.

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SECTION 10: Stability and reactivity

- · 10.1 Reactivity
- · 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided:

Danger of receptacles bursting because of high vapour pressure when heated.

10.3 Possibility of hazardous reactions

Reacts with peroxides and other radical forming substances.

Develops readily flammable gases/fumes.

Reacts with oxidising agents.

Can form explosive mixtures in air if heated above flash point and/or when sprayed or atomised.

Danger of receptacles bursting because of high vapour pressure when heated.

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

10.4 Conditions to avoid

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

Keep ignition sources away - Do not smoke.

- · 10.5 Incompatible materials: Oxidizers
- · 10.6 Hazardous decomposition products: Carbon monoxide, carbon dioxide, smoke, and soot.

SECTION 11: Toxicological information

- · 11.1 Information on toxicological effects
- · Acute toxicity:

	rioute termony.				
· LD/LC50 values relevant for classification:					
64742-47-8 Distillates (petroleum), hydrotreated light					
Oral	LD50	> 5000 mg/kg (rat)			
Dermal	LD50	>2000 mg/kg (rabbit)			
	64742-48-9 Naphtha (petroleum), hydrotreated heavy				
Oral	LD50	>5000 mg/kg (rat)			
Dermal	LD50	>3000 mg/kg (rab)			

- Primary irritant effect:
- · on the skin: No irritant effect.
- on the eye: Slight irritant effect on eyes.
- Sensitisation: No sensitising effects known.
- · Acute effects (acute toxicity, irritation and corrosivity): May be fatal if swallowed and enters airways.
- Repeated dose toxicity: May cause damage to organs through prolonged or repeated exposure.

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.

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- · Ecotoxical effects:
- Remark: Due to mechanical actions of the product (e.g. agglutinations) damages may occur.
- Additional ecological information:
- · General notes:

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

Danger to drinking water if even small quantities leak into the ground.

- 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. Contact waste processors for recycling information.

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



Limited Quantity for packages less than 30 kg (66 lb) and inner packagings less than 1 L (0.3 gal).

DOT, IATA
 ADR
 IMDG
 Aerosols, flammable
 1950 AEROSOLS
 AEROSOLS

· 14.3 Transport hazard class(es)

· DOT



· Class 2 Gases.

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	(Contd. of page 10)
· Label	2.1
· ADR	
2	
· Class · Label	2 5F Gases. 2.1
· IMDG	
· Class	2 Gases.
· Label	2.1
· IATA	
· Class	2.1
· Label	2.1
14.4 Packing group	Not regulated for transport.
· DOT, ADR, IMDG, IATA · 14.5 Environmental hazards:	Not Regulated
· 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	
MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E0
Tuesday and a standay	Not permitted as Excepted Quantity
Transport category	2
· Tunnel restriction code	D
· IMDG	41
· Limited quantities (LQ) · Excepted quantities (EQ)	1L Code: E0
Excepted quantities (EQ)	Not permitted as Excepted Quantity
· UN "Model Regulation":	UN1950, AEROSOLS, 2.1
· 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:

Present in trace quantities.

91-20-3 naphthalene

· 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%)

124-38-9 carbon dioxide

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· Information about limitation of use:

Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation. Exceptions can be made by the authorities in certain cases.

· 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.

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

H280 Contains gas under pressure; may explode if heated.

H304 May be fatal if swallowed and enters airways.

H319 Causes serious eye irritation.

R36 Irritating to eyes.

R65 Harmful: may cause lung damage if swallowed.

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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Flam. Aerosol 2: Flammable aerosols, Hazard Category 2

Press. Gas L: Gases under pressure: Liquefied gas

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

Asp. Tox. 1: Aspiration hazard, Hazard Category 1

· Sources

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