






# Material Safety Data Sheet

NFPA	WHMIS	PPE	Transport Symbol
			<p>Not Regulated, Non-Bulk</p>

Preparation Date 08-Dec-2006

Revision Date 12-Dec-2012

Revision Number 8

## 1. PRODUCT AND COMPANY IDENTIFICATION

<b>Product Name</b>	Silver Shield®
<b>Product Code</b>	7421
<b>UN-No</b>	1999
<b>Contact Manufacturer</b>	
The Garland Company, Inc. 3800 East 91st. Street Cleveland, Ohio 44105-2197 Ph: (800) 762-8225 Fax: (216) 641-0633	Garland Canada, Inc. 209 Carrier Dr. Toronto, Ontario M9W 5Y8 Ph: (416)747-7995 (800)387-5991 Fax: (416)747-1980
<b>Emergency Telephone Number</b>	1-800-762-8225 (24 Hrs.)

## 2. HAZARDS IDENTIFICATION

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### Emergency Overview

Combustible material

**Appearance** - Silver

**Physical State** - Liquid

**Odor** - Petroleum distillates

**Mexico - Grade** Moderate risk, Grade 2

### Potential Health Effects

**Principle Routes of Exposure** Skin contact. Eye contact. Inhalation. Ingestion.

#### Acute Effects

##### Eyes

Avoid contact with eyes. Moderately irritating to the eyes. May cause corneal damage..

##### Skin

Avoid contact with skin. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. May cause sensitization by skin contact.

##### Inhalation

Avoid breathing vapors or mists. May cause irritation of respiratory tract.

##### Ingestion

Harmful if swallowed. Ingestion can cause irritation to mucous membranes. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

#### Chronic Effects

Prolonged exposure may cause chronic effects. Repeated contact may cause allergic reactions in very susceptible persons.

See Section 11 for additional Toxicological information.

#### Main Symptoms

Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

**Aggravated Medical Conditions** Liver disorders. Kidney disorders. Skin disorders. Central nervous system.

**Interactions with Other Chemicals** Not available

**Potential Environmental Effects** See Section 12 for additional Ecological information.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %
Petroleum Asphalt	8052-42-4	10 - 30
Stoddard solvent	8052-41-3	10 - 30
Aluminum Powder	7429-90-5	10 - 30
White Spirit	64742-82-1	5 - 10
Cellulose	9004-34-6	1 - 5

#### 4. FIRST AID MEASURES

<b>General Advice</b>	Immediate medical attention is required. Show this safety data sheet to the doctor in attendance. Remove from exposure, lie down.
<b>Eye Contact</b>	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. Remove from exposure, lie down. Call a physician immediately.
<b>Skin Contact</b>	Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes.
<b>Inhalation</b>	Move to fresh air. Call a physician immediately.
<b>Ingestion</b>	Do not induce vomiting. Call a physician or Poison Control Center immediately. Never give anything by mouth to an unconscious person.
<b>Notes to Physician</b>	Treat symptomatically.
<b>Protection of First-aiders</b>	Use personal protective equipment. Avoid contact with skin, eyes and clothing. Remove all sources of ignition.

#### 5. FIRE-FIGHTING MEASURES

<b>Suitable Extinguishing Media</b>	Carbon dioxide (CO <sub>2</sub> ). Dry powder. Foam. Dry chemical.
<b>Unsuitable Extinguishing Media</b>	Do not use a solid water stream as it may scatter and spread fire.
<b>Hazardous Combustion Products</b>	Carbon monoxide, Carbon dioxide (CO <sub>2</sub> ), Hydrocarbons.
<b>Explosion Data</b>	
Sensitivity to mechanical impact	No
Sensitivity to static discharge	Yes

#### **Specific Hazards Arising from the Chemical**

Combustible material. Keep product and empty container away from heat and sources of ignition.

#### **Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Standard procedure for chemical fires.

**NFPA**

**Health 2**

**Flammability 2**

**Instability 1**

#### 6. ACCIDENTAL RELEASE MEASURES

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<b>Personal Precautions</b>	Use personal protective equipment. Keep people away from and upwind of spill/leak. Remove all sources of ignition. Evacuate personnel to safe areas. Ensure adequate ventilation.
<b>Environmental Precautions</b>	Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.
<b>Methods for Containment</b>	Dike with inert absorbent material
<b>Methods for Cleaning Up</b>	Dam up. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
<b>Other Information</b>	Not applicable

## 7. HANDLING AND STORAGE

<b>Handling</b>	Wear personal protective equipment. Do not breathe vapors or spray mist. Ensure adequate ventilation. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharges. Use only in an area containing flame proof equipment. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded.
<b>Storage</b>	Keep in properly labeled containers. Keep tightly closed in a dry and cool place.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	Ontario TWAEV	Mexico
Petroleum Asphalt	TWA: 0.5 mg/m <sup>3</sup>		TWA: 0.5 mg/m <sup>3</sup>	STEL: 10 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup>
Stoddard solvent	TWA: 100 ppm	TWA: 2900 mg/m <sup>3</sup> TWA: 500 ppm	TWA: 525 mg/m <sup>3</sup>	STEL: 200 ppm STEL: 1050 mg/m <sup>3</sup> TWA: 523 mg/m <sup>3</sup> TWA: 100 ppm
Aluminum Powder	TWA: 10 mg/m <sup>3</sup>	TWA: 15 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup> TWA: 10 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup>
Cellulose	TWA: 10 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup> TWA: 15 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup>	STEL: 20 mg/m <sup>3</sup> TWA: 10 mg/m <sup>3</sup>

Chemical Name	NIOSH IDLH
Stoddard solvent	20000 mg/m <sup>3</sup>

**IDLH:** Immediately Dangerous to Life or Health

**Engineering Measures** Ensure adequate ventilation, especially in confined areas.

**Personal Protective Equipment**

**Eye/face Protection** Safety glasses with side-shields.  
**Skin Protection** Long sleeved clothing. Impervious butyl rubber gloves. Antistatic boots.  
**Respiratory Protection** Wear a positive-pressure supplied-air respirator.

**Hygiene Measures**

When using, do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Silver	
<b>Odor</b>	Petroleum distillates	
<b>Physical State</b>	Liquid	
<b>pH</b>	Not available	
<b>Flash Point</b>	105°F / 41°C	
<b>Method</b>	Tag Closed Cup	
<b>Autoignition Temperature</b>	540°F / 282°C	
<b>Boiling Point/Range</b>	300-390°F / 149-199°C	
<b>Freezing Point</b>	Not available	
<b>Flammability Limits in Air</b>	<b>Lower</b> 0.8%	<b>Upper</b> 6.0%
<b>Explosive Properties</b>	Not available	
<b>Oxidizing Properties</b>	Not available	
<b>Evaporation Rate</b>	Not available	
<b>Vapor Pressure</b>	5 mmHg	
<b>Vapor Density</b>	(Air = 1)	
<b>Specific Gravity</b>	0.95	
<b>Solubility</b>	partly miscible	
<b>Water Solubility</b>	Insoluble	
<b>Volatiles</b>	44-50%	
<b>VOC Content</b>	500 g/L	

## 10. STABILITY AND REACTIVITY

<b>Stability</b>	Stable under recommended storage conditions. Hazardous polymerization does not occur.
<b>Conditions to Avoid</b>	Open flames and intense heat. Protect from water. Heating in air.
<b>Incompatible Materials</b>	Water. Strong oxidizing agents.

**Hazardous Decomposition Products**

Carbon oxides.

**Possibility of Hazardous Reactions**

Hazardous polymerization does not occur

## 11. TOXICOLOGICAL INFORMATION

**Acute Toxicity****Component Information**

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Petroleum Asphalt	5000 mg/kg Rat	2000 mg/kg Rabbit	
White Spirit	5000 mg/kg Rat	3160 mg/kg Rabbit	
Cellulose	5 g/kg Rat	2 g/kg Rabbit	5800 mg/m <sup>3</sup> Rat 4 h

**Chronic Toxicity****Carcinogenicity**

The table below indicates whether each agency has listed any ingredient as a carcinogen.

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants

White Spirit**Water Flea Data**

*Chaetogammarus marinus* LC50=2.6 mg/L (96 h)

**Persistence/Degradability**

Not available

**Bioaccumulation/ Accumulation**

Not available

**Mobility in Environmental Media**

Not available

Petroleum Asphalt

**log Pow = 6**

## 13. DISPOSAL CONSIDERATIONS

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<b>Waste Disposal Method</b>	Should not be released into the environment. It must undergo special treatment, e.g. at suitable disposal site, to comply with local regulations.
<b>Contaminated Packaging</b>	Clean container with water. Empty containers should be taken for local recycling, recovery or waste disposal.
<b>US EPA Waste Number</b>	D001

### 14. TRANSPORT INFORMATION

<b><u>DOT</u></b>	Not Regulated
<b>UN-No</b>	1999
<b><u>TDG</u></b>	Not regulated
<b><u>MEX</u></b>	Not regulated
<b><u>ICAO</u></b>	
<b>UN-No</b>	UN1999
<b>Proper Shipping Name</b>	Tars, liquid
<b>Hazard Class</b>	3
<b>Packing Group</b>	III
<b>Description</b>	Tars, liquid, UN1999, PG III
<b><u>IATA</u></b>	
<b>UN-No</b>	UN1999
<b>Proper Shipping Name</b>	Tars, liquid
<b>Hazard Class</b>	3
<b>Packing Group</b>	III
<b>ERG Code</b>	3L
<b>Description</b>	Tars, liquid, UN1999, PG III
<b><u>IMDG/IMO</u></b>	
<b>UN-No</b>	UN1999
<b>Proper Shipping Name</b>	Tars, liquid
<b>Hazard Class</b>	3
<b>Packing Group</b>	III
<b>EmS No.</b>	F-E, S-E
<b>Description</b>	Tars, liquid, UN1999, PG III

### 15. REGULATORY INFORMATION

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### International Inventories

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	CHINA	KECL	PICCS	AICS
Petroleum Asphalt	X	X	X	X	X	X	X	X	X	X
Stoddard solvent	X	X	X	X	X	X	X	X	X	X
Aluminum Powder	X	X	X	X	X	X	X	X	X	X
White Spirit	X	X	X	X	X	X	X	X	X	X
Cellulose	X	X	X	X	X	X	X	X	X	X

<b>TSCA</b>	Complies
<b>DSL</b>	Complies
<b>NDSL</b>	Complies
<b>EINECS</b>	Complies
<b>ELINCS</b>	Complies
<b>ENCS</b>	Complies
<b>CHINA</b>	Complies
<b>KECL</b>	Complies
<b>PICCS</b>	Complies
<b>AICS</b>	Complies

### USA

#### Federal Regulations

##### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40n of the Code of Federal Regulations, Part 372:

Chemical Name	SARA 313 - Threshold Values
Aluminum Powder (CAS #: 7429-90-5)	1.0%

#### Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain any HAPs.

#### State Regulations

##### California Proposition 65

This product contains the following Proposition 65 chemicals:

##### State Right-to-Know

Chemical Name	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Petroleum Asphalt	X	X	X		X
Stoddard solvent	X	X	X		X



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Aluminum Powder	X	X	X		X
Cellulose	X		X		X

**Canada**

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

**WHMIS Hazard Class**

B3 Combustible liquid

D2B Toxic materials

**Legend**

NPRI - National Pollutant Release Inventory

<b>16. OTHER INFORMATION</b>
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**Preparation Date** 08-Dec-2006

**Revision Date** 12-Dec-2012

**Revision Summary** Not available

## Disclaimer

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

**End of MSDS**