

Material Safety Data Sheet



since 1895

| NFPA | WHMIS | PPE | Transport Symbol |
|------|-------|-----|------------------|
| | | | Not Regulated |

Preparation Date 12/08/2006

Revision Date 04/21/2012

Revision Number 6

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name Silver-Flash
Product Code 7425
UN-No 1999

Contact Manufacturer
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 Drive
Toronto, Ontario M9W 5Y8
Ph: (416)747-7995 Fax: (416)747-1980

Emergency Telephone Number 1-800-762-8225 (24 Hrs.)

2. HAZARDS IDENTIFICATION

Emergency Overview

Combustible material

Appearance Silver.

Physical State Liquid.

Odor Petroleum distillates.

Mexico - Grade Slight risk, Grade 1

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 % |
|-----------------------------|------------|----------|
| Stoddard solvent | 8052-41-3 | 10 - 30 |
| Petroleum Asphalt | 8052-42-4 | 30 - 60 |
| Aluminum Powder | 7429-90-5 | 10 - 30 |
| Hydrous Alumino Silicate | 12174-11-7 | 5 - 10 |
| Quartz (Crystalline Silica) | 14808-60-7 | 0.1 - 1 |

4. FIRST AID MEASURES

Eye Contact Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Skin Contact Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Remove and wash contaminated clothing before re-use. If skin irritation persists, call a physician.

Inhalation Move to fresh air. Oxygen or artificial respiration if needed. If symptoms persist, call a physician.

Ingestion Call a physician or Poison Control Center immediately. Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice.

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media Foam. Dry powder. Dry chemical. Carbon dioxide (CO₂).

Unsuitable Extinguishing Media Do not use a solid water stream as it may scatter and spread fire.

Hazardous Combustion Products Carbon monoxide, Carbon dioxide (CO₂), Hydrocarbons.

Explosion Data

| | |
|----------------------------------|-----|
| 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.

NFPA**Health 2****Flammability 2****Instability 1****6. ACCIDENTAL RELEASE MEASURES**

| | |
|----------------------------------|---|
| Personal Precautions | Avoid contact with the skin and the eyes. Ensure adequate ventilation. Remove all sources of ignition. |
| Environmental Precautions | Prevent further leakage or spillage if safe to do so. Keep out of waterways. |
| Methods for Containment | Dike with inert absorbent material |
| Methods for Cleaning Up | Take precautionary measures against static discharges. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Keep in suitable and closed containers for disposal. |
| Other Information | Not applicable |

7. HANDLING AND STORAGE

| | |
|-----------------|--|
| Handling | Avoid contact with skin and eyes. Keep away from open flames, hot surfaces and sources of ignition. Ensure adequate ventilation. |
| Storage | Keep container tightly closed in a dry and well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition. Keep out of the reach of children. |

8. EXPOSURE CONTROLS / PERSONAL PROTECTION**Exposure Guidelines**

| Chemical Name | ACGIH TLV | OSHA PEL | Ontario TWAEV | Mexico |
|-----------------------------|------------------------------|---|---|---|
| Stoddard solvent | TWA: 100 ppm | TWA: 2900 mg/m ³ TWA: 500 ppm | TWA: 525 mg/m ³ | STEL: 200 ppm STEL: 1050 mg/m ³ TWA: 523 mg/m ³ TWA: 100 ppm |
| Petroleum Asphalt | TWA: 0.5 mg/m ³ | | TWA: 0.5 mg/m ³ | STEL: 10 mg/m ³ TWA: 5 mg/m ³ |
| Aluminum Powder | TWA: 10 mg/m ³ | TWA: 15 mg/m ³ TWA: 5 mg/m ³ | TWA: 5 mg/m ³ TWA: 10 mg/m ³ | TWA: 10 mg/m ³ |
| Quartz (Crystalline Silica) | TWA: 0.025 mg/m ³ | | TWA: 0.10 mg/m ³ | TWA: 0.1 mg/m ³ |

| Chemical Name | NIOSH IDLH |
|-----------------------------|-------------------------|
| Stoddard solvent | 20000 mg/m ³ |
| Quartz (Crystalline Silica) | 50 mg/m ³ |

Engineering Measures Do not allow ventilation equipment to draw material odors indoors.

Personal Protective Equipment

Eye/face Protection
Skin Protection

Safety glasses with side-shields
Impervious gloves. Long sleeved clothing.

Respiratory Protection No special protective equipment required.

Hygiene Measures

Wash hands before breaks and at the end of workday. Remove and wash contaminated clothing before re-use. Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

| | | |
|-----------------------------------|-----------------------|-------------------|
| Appearance | Silver | |
| Odor | Petroleum distillates | |
| Physical State | Liquid | |
| pH | Not available | |
| Flash Point | 105°F / 41°C | |
| Method | Tag closed cup | |
| Autoignition Temperature | 540°F / 282°C | |
| Boiling Point/Range | 300-390°F / 149-199°C | |
| Freezing Point | Not available | |
| Flammability Limits in Air | Lower 0.8% | Upper 6.0% |
| Explosive Properties | Not available | |
| Oxidizing Properties | Not available | |
| Evaporation Rate | Not available | |
| Vapor Pressure | 5 mmHg | |
| Vapor Density | @ Air = 1 | |
| Specific Gravity | 0.95 | |
| Solubility | partly miscible | |
| Water Solubility | Insoluble | |
| Volatiles | 44-50% | |
| VOC Content | 315 g/L | |

10. STABILITY AND REACTIVITY

| | |
|---|---|
| Stability | Stable under normal conditions. |
| Conditions to Avoid | Open flames and intense heat. Protect from water. |
| Incompatible Materials | Water. Strong oxidizing agents. |
| Hazardous Decomposition Products | Carbon monoxide. Carbon dioxide (CO ₂). Hydrocarbons. |
| 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 | |
| Quartz (Crystalline Silica) | 500 mg/kg Rat | | |

Chronic Toxicity

Carcinogenicity

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

| Chemical Name | ACGIH | IARC | NTP | OSHA | Mexico |
|-----------------------------|-------|----------|-------|------|--------|
| Hydrous Alumino Silicate | | Group 2B | | X | |
| Quartz (Crystalline Silica) | A2 | Group 1 | Known | X | |

12. ECOLOGICAL INFORMATION

Ecotoxicity

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

Persistence/Degradability

Not available

Bioaccumulation/ Accumulation

Not available

Mobility in Environmental Media

Not available

Petroleum Asphalt
log Pow = 6

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method

Dispose of in accordance with local, state, and federal regulations

Contaminated Packaging

Empty containers should be taken for local recycling, recovery or waste disposal

US EPA Waste Number

D001

14. TRANSPORT INFORMATION

DOT

UN-No

Not Regulated
1999

TDG

Not regulated

MEX

Not regulated

ICAO

UN-No

Proper Shipping Name

Hazard Class

Packing Group

Description

UN1999
Tars, liquid
3
III
Tars, liquid,UN1999,PG III

IATA

UN-No

Proper Shipping Name

Hazard Class

Packing Group

ERG Code

UN1999
Tars, liquid
3
III
3L

14. TRANSPORT INFORMATION

Description Tars, liquid, UN1999, PG III

IMDG/IMO

Proper Shipping Name Tars, liquid
Hazard Class 3
UN-No UN1999
Packing Group III
EmS No. F-E, S-E
Description Tars, liquid, UN1999, PG III

15. REGULATORY INFORMATION

International Inventories

| Chemical Name | TSCA | DSL | NDSL | EINECS | ELINCS | ENCS | CHINA | KECL | PICCS | AICS |
|-----------------------------|------|-----|------|--------|--------|------|-------|------|-------|------|
| Stoddard solvent | X | X | - | X | - | - | X | X | X | X |
| Petroleum Asphalt | X | X | - | X | - | - | X | X | X | X |
| Aluminum Powder | X | X | - | X | - | - | X | X | X | X |
| Hydrous Alumino Silicate | X | X | - | - | - | - | X | - | X | X |
| Quartz (Crystalline Silica) | X | X | - | X | - | X | X | X | X | X |

TSCA Complies
DSL Does not Comply
NDSL Complies
EINECS Does not Comply
ELINCS Does not Comply
ENCS Does not Comply
CHINA Complies
KECL Does not Comply
PICCS Complies
AICS 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

WARNING: This product contains a chemical(s) known to the State of California to cause cancer.

| Chemical Name | CAS-No | Category | Type |
|-----------------------------|------------|------------|------|
| Hydrous Alumino Silicate | 12174-11-7 | Carcinogen | |
| Quartz (Crystalline Silica) | 14808-60-7 | Carcinogen | |

State Right-to-Know

| Chemical Name | Massachusetts | New Jersey | Pennsylvania | Illinois | Rhode Island |
|-----------------------------|---------------|------------|--------------|----------|--------------|
| Stoddard solvent | X | X | X | | X |
| Petroleum Asphalt | X | X | X | | X |
| Aluminum Powder | X | X | X | | X |
| Quartz (Crystalline Silica) | X | 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

| |
|------------------------------|
| 16. OTHER INFORMATION |
|------------------------------|

Preparation Date 12/08/2006
Revision Date 04/21/2012
Revision Summary Canadian address update

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