



since 1895

Material Safety Data Sheet

NFPA	WHMIS	PPE	Transport Symbol
			DOT Not Regulated

Preparation Date 08-Dec-2006

Revision Date 19-Apr-2010

Revision Number 5

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name Garla-Flex
Product Code 9332
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 Canda, Inc.
 1296 Martin Grove Rd.
 Toronto, Ontario M9W 4X3
 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 Black.

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
Skin**

Avoid contact with eyes. Moderately irritating to the eyes.

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

**Inhalation
Ingestion**

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

Harmful if swallowed. Ingestion may cause irritation to mucous membranes.

Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

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**

No information available.

Potential Environmental Effects

See Section 12 for additional Ecological information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components

Chemical Name	CAS-No	Weight %	North American Hazard Indicator
Petroleum Asphalt	8052-42-4	30 - 60	1
Carbon Black	1333-86-4	0.1 - 1	1
Styrene-Butadiene-Styrene, reprocessed	9003-55-8	1 - 5	1
Petroleum naphtha, light aromatic	64742-95-6	10 - 30	1
Hydrous Alumino Silicate	12174-11-7	5 - 10	1
Quartz (Crystalline Silica)	14808-60-7	0.1 - 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 Centre 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 (CO ₂).
Unsuitable Extinguishing Media	Do not use a solid water stream as it may scatter and spread fire.
Hazardous Combustion Products	Carbon monoxide, Carbon dioxide (CO ₂), 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 1

Flammability 2

Instability 0

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 absorbant material
Methods for Cleaning Up	Take precautionary measures against static discharges. Soak up with inert absorbent material. Pick up and transfer to properly labelled 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 TWA EV	Mexico
Petroleum Asphalt	TWA: 0.5 mg/m ³		TWA: 0.5 mg/m ³	STEL: 10 mg/m ³ TWA: 5 mg/m ³

Chemical Name	ACGIH TLV	OSHA PEL	Ontario TWAEV	Mexico
Carbon Black	TWA: 3.5 mg/m ³	TWA: 3.5 mg/m ³	TWA: 3.5 mg/m ³	STEL: 7 mg/m ³ TWA: 3.5 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
Carbon Black	1750 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 Safety glasses with side-shields.
Skin Protection 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	Black	
Odor	Petroleum distillates	
Physical State	Liquid	
pH	Not available	
Flash Point	100°F / 38°C	
Method	Tag closed cup	
Autoignition Temperature	Not available	
Boiling Point/Range	300-355°F / 149-179°C	
Freezing Point	Not available	
Flammability Limits in Air	Lower Not available	Upper Not available
Explosion Limits	Lower 1.0%	Upper 7.0%
Explosive Properties	Explosive Properties	
Oxidizing Properties	Not available	
Evaporation Rate	0.1 (n-butyl cetate =1)	
Vapor Pressure	10 mmHg @ 100 °F	
Vapor Density	4.3 @ Air = 1	
Specific Gravity	0.96	
Solubility	Not available	
Water Solubility	Not available	
Volatiles	23-27%	
VOC Content	250 g/L	

10. STABILITY AND REACTIVITY

Stability	Stable under normal conditions.
Conditions to Avoid	Heat, flames and sparks.
Incompatible Materials	No materials to be especially mentioned.
Hazardous Decomposition Products	Carbon monoxide. Carbon dioxide (CO ₂). Hydrocarbons.

Possibility of Hazardous Reactions

Hazardous polymerisation 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	
Carbon Black	15400 mg/kg Rat	3 g/kg Rabbit	
Petroleum naphtha, light aromatic	8400 mg/kg Rat	2000 mg/kg Rabbit	3400 ppm Rat 4 h 5.2 mg/L Rat 4 h
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
Carbon Black		Group 2B		X	
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

Carbon Black**Water Flea Data**

Daphnia magna EC50>5600 mg/L (24 h)

Petroleum naphtha, light aromatic**Water Flea Data**

Daphnia magna EC50=6.14 mg/L (48 h)

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 regulations
Contaminated Packaging	Empty containers should be taken for local recycling, recovery or waste disposal
US EPA Waste Number	D001

14. TRANSPORT INFORMATION

<u>DOT</u>	Not Regulated
Subsidiary Class	
UN-No	1999
Reportable Quantity (RQ)	
<u>TDG</u>	Not regulated
Subsidiary Class	
<u>MEX</u>	Not regulated
Subsidiary Class	
<u>ICAO</u>	Not regulated
UN-No	UN1999
Proper Shipping Name	Tars, liquid
Hazard Class	3
Subsidiary Class	
Packing Group	III
Description	Tars, liquid,UN1999,PG III
<u>IATA</u>	Not regulated
UN-No	UN1999
Proper Shipping Name	Tars, liquid
Hazard Class	3
Subsidiary Class	
Packing Group	III
ERG Code	3L
Description	Tars, liquid,UN1999,PG III
<u>IMDG/IMO</u>	Not regulated
Proper Shipping Name	Tars, liquid
Hazard Class	3
Subsidiary Class	
UN-No	UN1999
Packing Group	III
EmS No.	F-E, S-E
Description	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
Carbon Black	X	X	-	X	X	X	X	X	X	X
Styrene-Butadiene-Styrene, reprocessed	X	X	-	-	-	X	X	X	X	X
Petroleum naphtha, light aromatic	X	X	-	X	-	-	X	X	X	X
Hydrous Alumino Silicate	-	-	-	-	-	-	X	-	X	X
Quartz (Crystalline Silica)	X	X	-	X	-	X	X	X	X	X

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

USA**Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and and Title 40n of the Code of Federal Regulations, Part 372.

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
Carbon Black	1333-86-4	Carcinogen	
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
Petroleum Asphalt	X	X	X		X
Carbon Black	X	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 08-Dec-2006

Revision Date 19-Apr-2010

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