



## SAFETY DATA SHEET SILVER SHIELD

According to Regulation (EC) No 1907/2006

### 1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

PRODUCT NAME	SILVER SHIELD
PRODUCT NO.	7421
APPLICATION	Reflective roof coating.
SUPPLIER	Garland Company UK Ltd, Unit 5, Glevum Works, Upton Street, Gloucester GL1 4LA UK Tel: 01452 330 646 Fax: 01452 330 657 email: info@garlandukltd.co.uk
EMERGENCY TELEPHONE	01452 330646 09:00 - 17:00 Monday to Friday

### 2 HAZARDS IDENTIFICATION

Flammable. Harmful: may cause lung damage if swallowed.

CLASSIFICATION (1999/45) Xn;R65. R10.

#### PHYSICAL AND CHEMICAL HAZARDS

Flammable. Vapours are heavier than air and may travel along the floor and in the bottom of containers.

#### HUMAN HEALTH

Harmful: may cause lung damage if swallowed.

### 3 COMPOSITION/INFORMATION ON INGREDIENTS

Name	EC No.	CAS-No.	Content %	Classification (67/548/EEC)
ALUMINIUM POWDER (STABILIZED)	231-072-3	7429-90-5	10-30%	F;R11,R15
PETROLEUM ASPHALT	232-490-9	8052-42-4	10-30%	-
STODDARD SOLVENT	232-489-3	8052-41-3	10-30%	Xn;R65. R10.

The Full Text for all R-Phrases is Displayed in Section 16

### 4 FIRST-AID MEASURES

#### INHALATION

Vapours may cause drowsiness and dizziness. Move the exposed person to fresh air at once. Get medical attention if any discomfort continues.

#### INGESTION

Harmful: may cause lung damage if swallowed. Rinse mouth thoroughly. Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs. Get medical attention immediately!

#### SKIN CONTACT

Prolonged skin contact may cause redness, irritation and dry skin. Remove affected person from source of contamination. Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if any discomfort continues.

#### EYE CONTACT

Splashes may irritate. Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

# SILVER SHIELD

## 5 FIRE-FIGHTING MEASURES

### EXTINGUISHING MEDIA

Extinguish with foam, carbon dioxide or dry powder. Do not use water jet as an extinguisher, as this will spread the fire.

### SPECIAL FIRE FIGHTING PROCEDURES

Avoid breathing fire vapours. Containers close to fire should be removed immediately or cooled with water. Keep run-off water out of sewers and water sources. Dike for water control.

### UNUSUAL FIRE & EXPLOSION HAZARDS

FLAMMABLE. Solvent vapours may form explosive mixtures with air. May travel considerable distance to source of ignition and flash back.

### SPECIFIC HAZARDS

Fire creates: Carbon monoxide (CO). Carbon dioxide (CO2). Hydrocarbons.

### PROTECTIVE MEASURES IN FIRE

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

## 6 ACCIDENTAL RELEASE MEASURES

### PERSONAL PRECAUTIONS

Wear protective clothing as described in Section 8 of this safety data sheet.

### ENVIRONMENTAL PRECAUTIONS

Do not allow to enter drains, sewers or watercourses.

### SPILL CLEAN UP METHODS

Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Stop leak if possible without risk. Absorb in vermiculite, dry sand or earth and place into containers. Containers with collected spillage must be properly labelled with correct contents and hazard symbol.

## 7 HANDLING AND STORAGE

### USAGE PRECAUTIONS

Read and follow manufacturer's recommendations. Eliminate all sources of ignition. Static electricity and formation of sparks must be prevented. Risk of vapour concentration on the floor and in low-lying areas. Provide good ventilation. Avoid inhalation of vapours/spray and contact with skin and eyes.

### STORAGE PRECAUTIONS

Keep away from heat, sparks and open flame. Store in tightly closed original container in a dry, cool and well-ventilated place. Take precautionary measures against static discharges. Avoid contact with oxidising agents.

### STORAGE CLASS

Flammable liquid storage.

## 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
ALUMINIUM POWDER (STABILIZED)	WEL		4 mg/m3			
PETROLEUM ASPHALT	WEL		5 mg/m3		10 mg/m3	

WEL = Workplace Exposure Limit.

### PROTECTIVE EQUIPMENT



### ENGINEERING MEASURES

Provide adequate ventilation.

### RESPIRATORY EQUIPMENT

If ventilation is insufficient, suitable respiratory protection must be provided.

### HAND PROTECTION

Use protective gloves. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.

**SILVER SHIELD****EYE PROTECTION**

Wear approved safety goggles.

**HYGIENE MEASURES**

Promptly remove any clothing that becomes contaminated. Wash promptly with soap & water if skin becomes contaminated. When using do not eat, drink or smoke. Wash hands after handling.

**9 PHYSICAL AND CHEMICAL PROPERTIES**

APPEARANCE	Colourless liquid
COLOUR	Silver
ODOUR	Hydrocarbon
SOLUBILITY	Slightly soluble in water.
BOILING POINT (°C)	149°C - 199°C
RELATIVE DENSITY	0.95
VAPOUR DENSITY (air=1)	3.9
VAPOUR PRESSURE	5 mm Hg @ 37.7°C
EVAPORATION RATE	40 (EtEt=1)
VOLATILE BY VOL. (%)	44-50%
FLASH POINT (°C)	41°C TCC (Tag closed cup).
AUTO IGNITION	282°C
TEMPERATURE (°C)	
VOLATILE ORGANIC COMPOUND (VOC)	500 g/litre

**10 STABILITY AND REACTIVITY****STABILITY**

Stable under normal temperature conditions and recommended use.

**CONDITIONS TO AVOID**

Avoid contact with strong oxidisers. Avoid heat, flames and other sources of ignition.

**HAZARDOUS POLYMERISATION**

Will not polymerise.

**MATERIALS TO AVOID**

Strong oxidising substances.

**HAZARDOUS DECOMPOSITION PRODUCTS**

Fire creates: Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Hydrocarbons.

**11 TOXICOLOGICAL INFORMATION****INHALATION**

Vapours may cause headache, fatigue, dizziness and nausea.

**INGESTION**

Harmful: may cause lung damage if swallowed. Drowsiness, dizziness, disorientation, vertigo.

**SKIN CONTACT**

Prolonged contact may cause redness, irritation and dry skin.

**EYE CONTACT**

Spray and vapour in the eyes may cause irritation and smarting.

**MEDICAL SYMPTOMS**

Headache. Nausea, vomiting. Drowsiness, dizziness, disorientation, vertigo.

**MEDICAL CONSIDERATIONS**

Liver and/or kidney problems. Skin disorders and allergies. Convulsive disorders, CNS problems.

Name	PETROLEUM ASPHALT
Toxic Dose 1 - LD 50	5,000 mg/kg (oral rat)

**12 ECOLOGICAL INFORMATION****ECOTOXICITY**

The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

# SILVER SHIELD

Name  
EC 50, 48 Hrs, Daphnia, mg/l

PETROLEUM ASPHALT  
6.14

## 13 DISPOSAL CONSIDERATIONS

### DISPOSAL METHODS

Dispose of waste and residues in accordance with local authority requirements. Recover and reclaim or recycle, if practical.

## 14 TRANSPORT INFORMATION



PROPER SHIPPING NAME	TARS, LIQUID
ENVIRONMENTALLY HAZARDOUS SUBSTANCE/MARINE POLLUTANT	No.
UN NO. ROAD	1999
ADR CLASS NO.	3
ADR CLASS	Class 3: Flammable liquids.
ADR PACK GROUP	III
TUNNEL RESTRICTION CODE	(D/E)
HAZARD No. (ADR)	30
ADR LABEL NO.	3
HAZCHEM CODE	2WE
UN NO. SEA	1999
IMDG CLASS	3
IMDG PACK GR.	III
EMS	F-E, S-E
UN NO. AIR	1999
AIR CLASS	3
AIR PACK GR.	III

## 15 REGULATORY INFORMATION

### LABELLING



Harmful

CONTAINS STODDARD SOLVENT

### RISK PHRASES

R10 Flammable.  
R65 Harmful: may cause lung damage if swallowed.

### SAFETY PHRASES

S51 Use only in well-ventilated areas.  
S60 This material and its container must be disposed of as hazardous waste.  
S62 If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

# SILVER SHIELD

## EU DIRECTIVES

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

## STATUTORY INSTRUMENTS

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716).

## APPROVED CODE OF PRACTICE

Classification and Labelling of Substances and Preparations Dangerous for Supply.

## GUIDANCE NOTES

Workplace Exposure Limits EH40.

## 16 OTHER INFORMATION

### REVISION COMMENTS

Transport classification updated.

REVISION DATE 11-2010

REV. NO./REPL. SDS GENERATED 1

### RISK PHRASES IN FULL

R10	Flammable.
R11	Highly flammable.
R15	Contact with water liberates extremely flammable gases.
R65	Harmful: may cause lung damage if swallowed.