

## HEALTH & SAFETY PRODUCT DATA SHEET ASPHALT

Issue Date: September 2020

### 1. Identification of Substances & Company

#### ASPHALT

Company:

Marchington Stone Limited

105 Buxton Road

High Lane

Stockport

SK6 8DX

Telephone: 01663 765000

Contact Email: sales@marchington.net

Hours of operation: 07:30 – 18:00 Weekdays, 08:00- 10:00 Saturday

### 2. Composition / Information on Ingredients

Asphalts are mixtures of aggregates and bitumen. Bitumen is a hydro-carbon derived from the distillation of petroleum crude oil but may be synthetic or modified by the use of polymers or other chemicals. Bitumen content is typically <10%. Other materials such as cellulose fibres, latex and other additives may be added to the product.

Asphalts containing additives are out of the scope of this data sheet.

Aggregates used in asphalt may be naturally occurring (e.g. limestone, gritstone, granite, sand etc.) artificial (e.g. slag aggregates) or recycled (e.g. road planings, inert construction and demolition waste, glass etc.)

For further details of the specification refer to the relevant Technical Data Sheet.

Hazardous Ingredients				
Substance Name	EC No	%	DSD Classification	CLP Classification
Crystalline Silica*	238-878-4	Variable	Xn:R48/20	H372: STOT RE1

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**3. Hazards Identification**

These products are NOT classified as hazardous in accordance with Directive 67/548/EEC or EC 1272/2008.

The main hazards presented by Asphalt depends on the temperature of the material.

The following hazards may apply:

- Hot material may burn the skin
- Fumes from asphalt are unlikely to be hazardous when laid in open air situations, but there may be a risk to health by continuous inhalation of high vapour concentrations which might arise in poorly ventilated, confined or semi-confined spaces.
- Asphalt is not a dusty material, but respirable dust may be released by cutting, drilling or planing hardened asphalt. If inhaled in excessive quantities over a prolonged period or extended period, respirable dust can constitute a long-term health hazard.
- Dusts containing Respirable Crystalline Silica\* (quartz) present a greater hazard. Long-term exposure to respirable dust can lead to respiratory system damage and disease. Respirable Crystalline Silica\* has been associated with the lung disease silicosis.
- The quartz content of the product will vary and is related to the type of aggregate used in the production of asphalt. Advice on the quartz content and other chemical information is specific to the source and available upon request.

\*Any references to respirable silica dust only apply if hardened asphalt is cut, drilled, milled or planed.

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**4. First Aid Measures**

Inhalation

Immediately remove to fresh air. If breathing difficulties are experienced, see medical attention. If breathing has stopped, commence artificial resuscitations and seek medical attention.

Skin Contact

Burns caused by contact with hot material should be cooled by immediately drenching with cold water. Do not attempt to remove anything from the burn area unless required to allow breathing. Seek medical attention. Bitumen may be removed under medical supervision.

Eye Contact

If material is hot, apply the same measures as “skin contact” above. If material is cold, immediately and thoroughly irrigate with eye wash solution or clean water. If pain or symptoms develop or persist, seek medical attention.

Ingestion

Remove to fresh air. If person is conscious, rinse out mouth and give water to drink. Seek medical advice.

**5. Fire Fighting Measures**

Suitable Extinguishing Media

Dry Powder, Foam.

Unsuitable Extinguishing Media

CO<sup>2</sup>. Do not use water.

Special Exposure Hazards in Fire

Hydrocarbon fumes may be released along with other hazardous combustion products including smoke.

Special Protective Equipment for Fire Fighters

Full protective clothing including suitable respirator or breathing apparatus.

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**6. Accidental Release Measures**

Personal Precautions

Wear overalls, heat resistant safety boots and heat resistant, impervious gloves.

Wear suitable respiratory protection in poorly ventilated or enclosed areas.

Keep away from ignition sources. See section 8 for guidance on personal protective equipment. See Section 7 for guidance on handling the product.

Environmental Precautions

Entry into watercourses, ditches and drains should be avoided.

Methods for Cleaning

Scrape up using suitable mechanical methods. Bitumen may be removed from tools and machinery with a proprietary bitumen remover (refer the product's Safety Data Sheet before using).

**7. Handling and Storage**

Handling

Skin contact with the product should be avoided. Inhalation of fumes should be avoided as far as is reasonably practicable. If the formation of vapours is a risk, then additional ventilation should be provided.

Handle away from sources of ignition and heat.

Do not smoke, eat or drink during use.

Storage

No special requirements. Asphalt is normally used immediately upon delivery. Refer to the relevant Technical Data Sheet for the specific product.

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**8. Exposure Controls/Personal Protection**

Take Measures to Prevent

(a) Inhalation of vapours/fumes.

(b) Inhalation of excessive quantities of dust during cutting, drilling, planing or surface treatment of hardened asphalt.

Exposure Control Limits/Source				
(a) Asphalt Fumes	W.E.L	5mg/m <sup>3</sup>	8 hrs	T.W.A.
	W.E.L.	10mg/m <sup>3</sup>	15 min	T.W.A.
(b) Total Dust -	W.E.L	10mg/m <sup>3</sup>	8 hrs	T.W.A.
Respirable Dust -	W.E.L	4mg/m <sup>3</sup>	8 hrs	T.W.A.
Respirable Quartz – (Crystalline Silica SiO <sub>2</sub> )	W.E.L	0.1mg/m <sup>3</sup>	8 hrs	T.W.A.

W.E.L = Workplace Exposure Limited

T.W.A = Time Weighted Average

**Control Measures**

Dust caused by cutting or planing hardened asphalt should be controlled by containment, suppression and extraction/filtration where possible.

Inhalation

Asphalt should only be laid in well ventilated areas.

Eyes, Skin and Hands

Wear suitable protective clothing, gloves and face/eye protection.

Respiratory Protection

Always ensure adequate ventilation and avoid breathing vapour/fumes. Suitable respiratory protection should be used if required to ensure exposure is below the Workplace Exposure Levels given above.

Hand Protection

Impermeable, heat resistant gloves should be worn.

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Eye Protection

Goggles should be worn if there is a risk of the product entering the eyes (including dust).

Skin Protection

Overalls/ impervious clothing, selected according to the workplace conditions. Heat resistant safety boots should be worn to protect feet.

Hygiene Measures

Wash hands thoroughly before handling or eating any food or drink.

**9. Physical and Chemical Properties**

Appearance	Black Granular Solid
Odour	Strong, characteristic
pH	Neutral
Boiling Point/Range	Not applicable
Melting Point/Range	90-100°C
Flash Point	Above 200°C
Flammability	Not determined
Auto Flammability	Above 230°C
Explosive Properties	Not determined
Oxidising Properties	Not determined
Vapour Pressure	Not applicable
Relative Density	Above 2.0
Water Solubility	Insoluble
Fat Solubility	Not determined

**10. Stability and Reactivity**

Conditions to Avoid

Sources of ignition and temperatures above 200°C

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Materials to Avoid

Strong oxidising agents, e.g. chlorates which may be used in agriculture.

Hazardous Decomposition Products

The substances arising from the thermal decomposition of the bitumen binder in Asphalt will largely depend on the particular conditions but may contain the following:  
Carbon Dioxide, Carbon Monoxide, Water, Particulate Matter, Hydrogen Sulphide, Sulphur Oxides, Polycyclic Aromatic Hydrocarbons, Unburnt Hydrocarbons, Nitrogen Oxides, Vanadium Pentoxide.

**11. Toxicological Information**

Inhalation

Inhalation of respirable dust from aggregate contained in asphalt whilst cutting or planing hardened asphalt can lead to respiratory system damage and disease. Inhalation of fumes over a prolonged period may cause irritation of the respiratory system.

Bitumen used in asphalt may release small amounts of hydrogen sulphide gas. With good general ventilation, this is not likely to cause any problems, but in poorly ventilated enclosed spaces, concentrations may build up to hazardous levels.

Skin Contact

Contact with hot asphalt may cause burns. Prolonged skin contact may cause dermatitis and malignant warts.

Eye Contact

Contact with hot asphalt may cause burns. Product entering the eyes may cause irritation.

Ingestion

Ingestion is unlikely. Seek medical attention.

**12. Ecological Information**

Environmental Assessment

When used and disposed of as intended, no adverse environmental effects are foreseen and asphalt should not pose an ecological hazard.

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Mobility

Asphalts are non-volatile materials that will sink in water and form a solid layer on the surface of the ground.

Persistence and Degradability

Asphalts are resistant to degradation and will persist in the environment for a considerable period of time.

Ecotoxicity

Not expected to be toxic to aquatic organisms.

**13. Disposable Consideration**

Safe Handling of Residues/Waste Product

Aggregates made with bitumen are ~~not~~ classed as non-hazardous but should be disposed of in accordance with local and national legal requirements. Hardened asphalt can be readily recycled.

**14. Transport Information**

Special Carriage Requirements

Not classified as dangerous for transport, keep product covered.

Flammable materials and containers that do or may become pressurised should be kept away from hot asphalt to avoid the risk of fire and explosion.

**15. Regulatory Information**

Not classified as dangerous. However, consideration of the following risk and safety phrases is recommended:

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67/548/EEC

Risk Phrases:

R34: May cause burns

R36: Irritating to eyes

R37: Irritating to respiratory system

Safety Phrases:

S 36 - Wear suitable protective clothing

S 37 - Wear suitable gloves

S 39 - Wear eye/face protection

S 51 – Use in well ventilated area

EC1272/2008

Hazard Statements:

H317 - May cause skin irritation

H335 - May cause respiratory irritation

H372 - Causes damage to organs through prolonged or repeated exposure (relates possible lung damage if exposed to respirable silica\* that may be released if hardened asphalt is cut, drilled, milled or planed).

Precautionary Statements:

P261 - Avoid breathing dust/fume/vapours

P271 – Use only outdoors or in a well-ventilated area

P281 - Use personal protective equipment as required (See Section 8)

**16. Other Information**

Training Advice

Wear and use of PPE

Recommended Uses and Applications

Industrial and construction applications.

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# MARCHINGTONSTONE

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### **Further Information**

Marchington Stone Limited  
Telephone 01663 765000

Key Data Used to Compile Data Sheet  
HSE Guidance Note EH40/2007  
PPE Regulations 1992  
COSHH Regulations 2002  
Environmental Protection Act 1990  
HSE Crystalline Silica EH59  
Dangerous Substances Directive (DSD) 67/548/EEC  
Classification, Labelling and Packaging Regulations (CLP) EC1272/2008

Prepared in accordance with Annex II of the REACH Regulation (EC) 1907/2006

### **Legal Notice**

The information in this Safety Data Sheet was believed to be correct at the time of issue. However, no warranty is made or implied as to the accuracy or completeness of this information.

If you have purchased this product for supply to a third party for use at work, it is your duty to take all necessary steps to ensure that any person handling or using the product is provided with the information in this sheet.

If you are an employer, it is your duty to tell your employees and others who may be affected, of any hazards described in this sheet and any of the precautions which should be taken.

This Safety Data Sheet does not constitute the user's own assessment of workplace risk, and it is the user's sole responsibility to take all necessary precautions when using this product.

Further copies of this Safety Data Sheet may be obtained from Marchington Stone Limited.

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