

Material Safety Data Sheet

May 2015



Product Description:	Asphalt
Manufacturer / Supplier:	Pat Munro (Alness) Ltd Caplich Quarry Alness Ross-shire IV17 0XU
Product Description / Material Composition:	Asphalts are mixtures of aggregates and bitumen. Bitumen is a hydrocarbon derived from the distillation of petroleum crude oil, but may be synthetic or modified by the use of polymers and other chemicals. Bitumen content is typically <10%. Other materials such as cellulose fibres, latex and other additives may be added to the product. 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).

Hazards	These products are NOT classified as dangerous in accordance with Directive 67/548/EEC or EC1272/2008.
The main hazards presented by Asphalt relate to the temperature of the material and the following hazard may apply:	
<ul style="list-style-type: none">Hot materials may burn the skin.Fumes from coated roadstone are unlikely to be hazardous when laid in open air situations but may be a risk to health by continuous inhalation of high vapour concentrations which may 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 the asphalt. Advice on the quartz content and other chemical information is available from the supplying unit. <p>*Any references to respirable silica only apply if hardened asphalt is cut, drilled, milled or planed.</p>	

First Aid Measures
Inhalation: Immediately remove to fresh air. If breathing difficulties are experienced, seek medical attention. If breathing has stopped, commence artificial resuscitation and seek medical attention immediately.
Skin Contact: Burns caused by contact with hot material should be cooled by immediately flushing with large amounts of 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 the material is cold, Immediately and thoroughly irrigate with eye wash solution or clean water. If 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.

Fire Fighting Measures	
Suitable Extinguishing Media:	Dry powder, foam.
Unsuitable Extinguishing Media:	Do not use water. CO2 is also not suitable.
Special Exposure Hazards in Fire:	Hydrocarbon fumes may be released, along with other hazardous combustion products including smoke.
Special Protective Equipment for Fire Fighters:	Proper protective equipment including suitable respirators or breathing apparatus must be worn.

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: Prevent asphalt from entering watercourses, ditches and drains.
Methods for Cleaning: Scrape up using suitable mechanical methods. Bitumen may be removed from tools and machinery with a proprietary bitumen remover, but ensure you refer to the suppliers safety data sheet before using.

Material Safety Data Sheet

May 2015



Handling and Storage	
Handling Skin contact with hot materials should be avoided. Inhalation of fumes should be avoided as far as is reasonably practicable.	
Storage No special requirements. Refer to the relevant Technical Data Sheet for the specific product.	

Exposure Controls / Personal Protection	
Take Measures to Prevent:	<ul style="list-style-type: none"> Inhalation of dust. Inhalation of excessive quantities of dust during cutting or surface treatment of hardened asphalt.
Exposure Control Limits / Source:	<ul style="list-style-type: none"> Asphalt Fumes – W.E.L. 5mg/m³ 8 hours T.W.A. 10mg/m³ 15 Min. T.W.A. Total Dust – W.E.L. 10mg/m³ 8 hours T.W.A. Respirable Dust – W.E.L. 4mg/m³ 8 Hours T.W.A. Respirable Quartz – W.E.L. 0.1mg/m³ 8 Hours T.W.A. <p>W.E.L. = Workplace Exposure Limit T.W.A. = Time Weighted Average</p>
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.
Eye Protection:	Goggles should be worn if there is a risk of product entering the eyes (including dust).
Skin Protection:	Overalls and/or long-sleeved jackets and full length trousers should be worn to protect skin from burns. Clean overalls as necessary to prevent bitumen permeating to clothing or skin underneath. Heat resistant safety boots should be worn to protect feet. The use of skin barrier cream is also recommended.
NOTE: Hands should be washed thoroughly before handling or eating food or drink.	

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
Auto Flammability:	Above 230°C
Explosive Properties:	Not determined
Oxidising Properties	Not determined
Vapour Pressure:	Not determined
Relative Density:	Above 2.0
Water Solubility:	Insoluble
Fat Solubility:	Not determined

Stability and Reactivity	
Conditions to Avoid:	Sources of ignition and temperatures above 200°C.
Materials to Avoid:	Strong oxidising agents, e.g. chlorates which may be used in agriculture.
Hazardous Decomposition of Products:	Hydrogen Sulphide, Carbon Dioxide, Carbon Monoxide, Water, Particulate Matter, Sulphur Oxides, Polycyclic Aromatic Hydrocarbons, Unburnt Hydrocarbons, Nitrogen Oxides, Vanadium Pentoxide.
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:	

Material Safety Data Sheet

May 2015



Toxicological Information

Fumes inhaled over a prolonged period could constitute a health hazard. Prolonged skin contact may cause dermatitis and malignant warts.

Ecological Information

Environmental Assessment:	When used and disposed of as intended, no adverse environmental effects are foreseen.
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.

Disposal Considerations

Likely Residues / Waste Product:	Asphalt is an inert material
Safe Handling of Residues / Waste Product:	Asphalt made with bitumen is classed as 'non-hazardous' but should be disposed of in accordance with local and national legal requirements. Hardened asphalt can be readily recycled.

Transport Information

Special Carriage Requirements:	Not classified as dangerous for transport. Product should be kept 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.
---------------------------------------	--

Regulatory, Other and Further Information

This product is NOT classified as dangerous for Transport

Training Advice:

Wear and use of PPE.

Recommended Uses and Applications:

Industrial and construction applications.

Further Information:

For further information please contact the HSEQ or Technical Departments at Pat Munro (AIness) Ltd on 01349 882377.

Key Data Used to Compile Data Sheet:

HSE Guidance Note EH40/2007

PPE Regulations 1992

COSHH Regulations 2002 (fifth edition) 2005

Environmental Protection Act 1990

HSE Crystalline Silica EH59