

According to Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) No 453/2010

# SECTION 1: Identification of the substance/mixture and of the company/undertaking

- 1.1 Product identifier Easymelt Bonding Bitumen CAS No. : 64742-93-4 REACH Registration No. : 01-2119498270-36-0004 MAL Code (As per third party verification) 0-1
- **1.2** Relevant identified uses of the substance or mixture and uses advised against Bitumen for roofing applications

## 1.3 Details of the supplier of the safety data sheet IKO PLC Appley Lane North Appley Bridge, Wigan Lancashire WN6 9AB Tel: 01257 255 771

www.ikogroup.co.uk

### 1.4 Emergency telephone number

Tel: +44 (0)1257 256864 Opening Times: 0900 - 1700 Monday to Friday

# SECTION 2: Hazards Identification

# 2.1 Classification of the substance or mixture

Classification in accordance with the Classification Labelling and Packaging Regulation EC (no) 1272/2008

Not classified as hazardous/

# 2.2 Label elements

Labelling in accordance with the Classification Labelling and Packaging Regulation EC (no) 1272/2008 None required.

### 2.3 Other hazards

Health hazards:

Hydrogen sulphide ( $H_2S$ ), an extremely flammable and toxic gas, and other hazardous vapours may evolve and collect in the headspace of storage tanks, transport vessels and other enclosed containers when the material is stored in a molten state. Hydrogen sulfide is highly toxic and may be fatal if inhaled. **Do not depend on sense of smell for warning.**  $H_2S$  causes rapid olfactory fatigue (deadens sense of smell).

According to Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) No 453/2010

Contact with hot material can cause thermal burns which may result in permanent skin damage. Hot product may cause severe eye burns and/or blindness.

Safety Hazards :

Not classified as flammable but will burn. Typically stored and handled above 100°C. Contact with water will result in violent expansion and splashing or boil-over may occur.

### Environmental Hazards :

Not classified as dangerous for the environment. The substance does not fulfill all screening criteria for persistence, bioaccumulation and toxicity and hence is not considered to be PBT or vPvB.

### **SECTION 3:** Composition / Information on Ingredients

#### 3.1 Substances

A blend of components derived from crude petroleum oil.

EC Name:	Asphalt, oxidized
EC Number:	265-196-4
CAS Number:	64742-93-4

### 3.2 Mixtures

Not applicable, product is a substance under REACH.

#### **SECTION 4: First Aid Measures**

# 4.1 Description of first aid measures

**General Information** DO NOT DELAY. Keep victim calm. Obtain medical treatment immediately.

EYE CONTACT:	Hot product - If contact with hot product, cool the burn area by flushing with large amounts of water. Do not attempt to remove anything from the burn area or apply burn creams or ointments. During transport do not cover the wound with dressing or sheet since these may adhere to the product. Transport to the nearest medical facility for additional treatment. All burns should receive medical attention. Cold product - Flush eye with copious quantities of water. If persistent irritation
SKIN CONTACT:	occurs, obtain medical attention. If contact with hot product, cool the burn area by flushing with large amounts of water. Do not attempt to remove anything from the burn area or apply burn creams or
	ointments. During transport do not cover the wound with dressing or sheet since these may adhere to the product. It should be noted this product contracts on cooling. Where a limb is encased, care should be taken to avoid the development of a tourniquet effect. In the event of this occurring the adhering product must be softened and/or split to prevent restriction of blood flow. All burns should receive medical attention.
INHALATION:	If inhalation of mists, fumes or vapour causes irritation to the nose or throat, remove to fresh air. If rapid recovery does not occur, obtain medical attention. Casualties suffering ill effects as a result of exposure to hydrogen sulphide should be removed to fresh air. Do not attempt to rescue the victim unless proper respiratory protection is worn. If the victim has difficulty breathing or tightness of the chest, is dizzy, vomiting, or unresponsive, give 100% oxygen with rescue breathing or Cardiopulmonary Resuscitation (CPR) as required and transport to the nearest medical facility.
INGESTION:	Under normal conditions of use, this is not expected to be a primary route of exposure. If swallowed, rinse mouth with water.

### 4.2 Most important symptoms and effects, both acute and delayed

H2S has a broad range of effects dependent on the airborne concentration and length of exposure:

- 0.02 ppm odour threshold, smell of rotten eggs;
- 10 ppm eye and respiratory tract irritation;
- 100 ppm coughing, headache, dizziness, nausea, eye irritation, loss of sense of smell in minutes;

According to Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) No 453/2010

- 200 ppm potential for pulmonary oedema after >20-30 minutes;
- 500 ppm loss of consciousness after short exposures, potential for respiratory arrest;
- >1000ppm immediate loss of consciousness, may lead rapidly to death, prompt cardiopulmonary resuscitation may be required.

There is no evidence that  $H_2S$  will accumulate in the body tissue after repeated exposure.

## 4.3 Indication of any immediate medical attention and special treatments needed

Do not attempt to remove the product from the skin as it provides an airtight sterile covering, which will eventually fall away with the scab as the burn heals. If removal is attempted, mineral oil (not mineral spirits) or a mineral oil based ointment may be applied to help soften the product to facilitate removal.

Hydrogen sulphide (H<sub>2</sub>S) -CNS asphyxiant. May cause rhinitis, bronchitis and occasionally pulmonary oedema after severe exposure. CONSIDER: Oxygen therapy. Consult a Poison Control Centre for guidance.

### SECTION 5: Firefighting Measures

## 5.1 Extinguishing media

Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only. Unsuitable Extinguishing Media: Do not use water in a jet.

## 5.2 Special hazards arising from the substance or mixture

Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide. Unidentified organic and inorganic compounds. Boil-over of tanks and violent eruptions may occur in the presence of water.

## 5.3 Advice for fire fighters

Proper protective equipment including chemical resistant gloves are to be worn; chemical resistant suit is indicated if large contact with spilled product is expected. Self-Contained Breathing Apparatus must be worn when approaching a fire in a confined space. Select fire fighter's clothing approved to relevant Standards (e.g. Europe: EN469).

# **SECTION 6: Accidental Release Measures**

### 6.1 Personal precautions, protective equipment and emergency procedures

Avoid contact with skin, eyes and clothing. Hot product should be handled so that there is no risk of burns. Use compressed air or fresh air respiratory equipment in confined spaces.

### 6.2 Environmental precautions

Prevent from spreading or entering into drains, ditches or rivers by using sand, earth, or other appropriate barriers. Local authorities (Environment Agency/water authorities) should be advised if significant spillages cannot be contained.

### 6.3 Methods and materials for containment and clearing up

*Small spillage:* Allow product to cool and solidify. Shovel into a suitable clearly marked container for disposal or reclamation in accordance with local regulations.

*Large spillage:* Prevent from spreading by making a barrier with sand, earth or other containment material. Treat residues as for small spillage.

# 6.4 References to other sections

See sections 8 and 13 for further advice on protective clothing and disposal.

### **SECTION 7: Handling and Storage**

# 7.1 Precautions for safe handling

General Precautions :	Avoid contact with hot liquid to prevent thermal burns. Always observe good personal hygiene measures, such as washing hands after handling the material and before
	eating, drinking, and/or smoking.
Handling :	For quality, health and safety reasons do not exceed the recommended handling temperature.

According to Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) No 453/2010

Handling Temperature: Temperature should be kept at least 30°C below flash point and should never exceed the industry recommended maximum safe working temperature of 200°C.

## 7.2 Conditions for safe storage, including any incompatibilities

Store in the cold state. Do not store in the molten state.

Recommended Materials : For containers or container linings, use steel. Unsuitable Materials : For containers or container linings avoid PVC, polyethylene or high density polyethylene.

## 7.3 Specific end uses(s)

Exposure to this product should be reduced as low as reasonably practicable. Reference should be made to the Health and Safety Executive's publication "COSHH Essentials".

## SECTION 8. Exposure Controls/Personal Protection

## 8.1 Control parameters

Material	Source	Туре	ppm	mg/m3
Hydrogen Sulphide	EH40 WEL	TWA (8hr)	5	7
Hydrogen Sulphide	EH40 WEL	STEL (15 min)	10	14
Asphalt, fumes	EH40 WEL	TWA (8hr)		5
Asphalt, fumes	EH40 WEL	STEL (15 min)		10

#### **Occupational Exposure Limits**

Derived No Effect Levels: No DNEL value has been established.

**PNEC related information:** Substance is a hydrocarbon with a complex, unknown or variable composition. Conventional methods of deriving PNECs are not appropriate and it is not possible to identify a single representative PNEC for such substances.

# 8.2 Exposure controls

**Engineering Controls:** The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include: Adequate ventilation to control airborne concentrations below the exposure guidelines/limits.

Product has a low volatility and at ambient temperature fume formation will be low. Avoid vapours from heated materials to prevent exposure to potentially toxic/irritating fumes. Where material is heated, sprayed or mist formed, there is greater potential for airborne concentrations to be generated.

### **Personal Protective Equipment:**

Eyes/Face:	Where there is a risk of damage to the eyes/face from splashing of hot product or impact, wear eye/face protection to EN166. For normal operations with hot material wear safety hat with visor.
Hand:	Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374, US: F739) made from the following materials may provide suitable chemical protection: Heat resistant gloves and PVC or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced
Skin:	For normal operations with hot material wear heat resistant coveralls, (with cuffs over gloves and legs over boots), and heavy-duty boots, e.g. leather for heat resistance. The use of a neck apron is recommended. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned.
Respiratory:	No respiratory protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid breathing of

According to Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) No 453/2010

material. Use self contained breathing apparatus in places where hydrogen sulphide vapours may accumulate.

**Environmental Exposure Controls:** Minimise release to the environment. An environmental assessment must be made to ensure compliance with local environmental legislation.

## **SECTION 9: Physical and Chemical Properties**

9.1 Information on basic	physical and chemical properties
Appearance:	Brown-black blocks. Liquid at high temperature.
Odour:	Characteristic
Odour threshold:	No data available
pH:	Not Applicable
Boiling Point:	> 320°C
Softening Point:	80-90°C
Flash Point:	>230°C (Cleveland Open Cup)
Evaporation rate:	Not Applicable
Flammability(gas, solids):	Not classified as flammable, but will burn.
Upper/lower flammability lim	its: No data available
Vapour Pressure:	< 1 hPa
Vapour Density:	Not Applicable
Density :	ca. 0.990 - 1.300 g/cm3 at 25 °C / 77 °F
Solubility (H2O):	Negligible
Solubility in other solvents:	Soluble
Auto Ignition Temp.:	> 300°C
Decomposition temperature:	No data available
Viscosity:	No data available
Explosive properties:	Not classified as explosive
Oxidising properties:	Not classified as oxidising
9.2 Other information	
Penetration :	20 - 30 dmm at 25 °C / 77 °F
Hygroscopicity :	Negligible.

# SECTION 10: Chemical Stability and Reactivity

### 10.1 Reactivity

The product does not pose any further reactivity hazards in addition to those listed below.

### 10.2 Chemical stability

Stable under normal conditions.

## **10.3** Possibility of hazardous reactions

None expected.

# 10.4 Conditions to avoid

Heating above the maximum recommended storage and handling temperature, will cause degradation and evolution of flammable vapours.

# 10.5 Incompatible materials

Do not allow molten material to contact water or liquids as this can cause violent eruptions, splatter hot material, or ignite flammable material. Reacts with strong oxidising agents. Avoid contamination of thermal insulation near hot surfaces by oil and bitumen and replace lagging where necessary, with a non-absorbent type of insulation. Self-heating, leading to auto-ignition at the surfaces of porous or fibrous materials impregnated with bitumen or condensates from bituminous fumes, can occur at temperatures below 100°C.

# **10.6** Hazardous decomposition products

Hydrogen sulphide.

According to Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) No 453/2010

# SECTION 11: Toxicological Information

### 11.1 Information on toxicological effects

Information given is based on data on the components and the toxicology of similar products. Unless indicated otherwise, the data presented is representative of the product as a whole, rather than for individual component(s).

(a) acute toxicity	Not expected to present an acute toxicity hazard. Inhalation of fumes may result in irritation, especially if the product is overheated above recommended temperatures Acute Oral Toxicity: Low toxicity: LD50 > 5000 mg/kg Acute Dermal Toxicity: Low toxicity: LD50 >2000 mg/kg, Rabbit Acute Inhalation Toxicity: Low toxicity by inhalation.	
(b) skin corrosion/irritation	Expected to be slightly irritating. Contact with hot material can cause thermal burns which may result in permanent skin damage.	
(c) serious eye damage/irritation Expected to be slightly irritating. Hot product may cause severe ey		
(d) respiratory/skin sensitisa		
(e) germ cell mutagenicity	Not considered a mutagenic hazard.	
(f) carcinogenicity	Bitumens contain low concentrations of Polycyclic Aromatic Compounds (PACs). At ambient temperatures and in undiluted bitumens these PACs are not considered to be bio-available. However, if bitumens are mixed with diluents to obtain a low viscosity at ambient temperatures, or heated beyond recommended temperatures, it is believed that such materials may become bio-available. AS such the IARC has classified bitumen as a Group 2A or 2B	

(g) reproductive toxicity (h) STOT-single exposure	Not expected to impair fertility. Not expected to be a developmental toxicant. Inhalation of vapours or mists may cause irritation to the respiratory system, especially if the product is overheated above recommended temperatures.
(i) STOT-repeated exposure	No chronic health effects are expected from the normal use of this product.
(j) aspiration hazard	Not considered an aspiration hazard.

# **SECTION 12: Ecological Information**

This product has not been tested. Judgements on the expected toxicity of this product have been made based upon consideration of its major components.

# 12.1 Toxicity

Poorly soluble mixture. Expected to be practically non toxic: LL/EL/IL50 > 100 mg/l (to aquatic organisms) (LL/EL50 expressed as the nominal amount of product required to prepare aqueous test extract).

### 12.2 Persistence and degradability

Expected to be not inherently biodegradable.

### 12.3 Bioaccumulative potential

Has the potential to bioaccumulate. Log Kow > =4

In practice, the very low water solubilities and high molecular weights of these substances are such that their bioavailability to aquatic organisms is limited and therefore bioaccumulation is unlikely.

### 12.4 Mobility in soil

Adsorbs to soil and has low mobility. In water will either float or sink, showing little tendency to disperse, the product will adsorb to the sediment.

### 12.5 Results of PBT and vPvB assessment

According to Regulation (EC) No 1907/2006, Annex II, as amended by Regulation (EU) No 453/2010

The substance does not fulfill all screening criteria for persistence, bioaccumulation and toxicity and hence is not considered to be PBT or vPvB.

### 12.6 Other adverse effects

May cause physical fouling of aquatic organisms.

### **SECTION 13:** Disposal Considerations

#### 13.1 Waste treatment methods

Material Disposal:	Recover or recycle if possible. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations. Do not dispose into the environment, in drains or in water courses.
Container Disposal:	Dispose in accordance with prevailing regulations, preferably to a recognised collector or contractor. The competence of the collector or contractor should be established beforehand.
Local Legislation:	Disposal should be in accordance with applicable regional, national, and local laws and regulations.

EU Waste Disposal Code (EWC): 05 01 17 bitumen

Classification of waste is always the responsibility of the end user.

### **SECTION 14:** Transport Information

Not considered to be dangerous goods for transport if transported at ambient temperature.

#### **SECTION 15: Regulatory Information**

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture** All components are listed as existing substances in Europe

#### 15.2 Chemical Safety Assessment

A Chemical Safety Assessment has been carried out for this substance. This product is not classified for human health or environmental hazards. An exposure scenario is not required.

#### **SECTION 16: Other Information**

**Revision information:** Reformatted in accordance with the formatting described in Regulation 1907/2006/EC as amended by Regulation (EU) 453/2010.

# List of Abbreviations used in this SDS:

- CAS Chemical Abstracts Service
- CLP Classification, Labelling and Packaging Regulation (EC) no 1272/2008
- EC European Community/Commission
- PBT Persistent, Bioaccumulative and Toxic

REACH Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) no 1907/2006 vPvB very Persistent, very Bioaccumulative

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## Legal disclaimer:

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.

# IKO PLC

Literature Enquiries E-Mail: marketing@ikogroup.co.uk Website: <u>www.ikogroup.co.uk</u>

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### Version History

V3	December 2014	Changes made to bring in line with CLP Regulations
V4	May 2017	Removal of DPD references
V5	June 2018	Added MAL code to comply to Danish Legislation
V6	October 2019	Revised IARC Classification (s11), added new logo