

Safety Data Sheet

1. Identification of the substance / preparation and the company

Identification of the product: Ayton C40B4 Bitumen Emulsion

Product description: Cationic bitumen in water emulsion for use in highways maintenance and construction: tack coat process

Supplier: Ayton Products
 Browick Road
 Wymondham
 Norfolk NR18 ORJ
 Tel : 01953 602002
 Fax : 01953 609864

Emergency phone number: National Chemical Emergency Centre +44 1865 487333 (24 hours)

2. Hazards identification

The following classification and labelling is required by the Classification, Labelling and Packaging of Substances and Mixtures Regulation EC 1272/2008:

Pictogram: None

Signal word: None

Classification: None

Hazard statements: None

Precautionary statements: P273 Avoid release to the environment - refer to special instructions / safety data sheet

3. Composition / information on ingredients

Ayton C40B4 bitumen emulsion comprises mainly of bitumen emulsified in water. Emulsifying agents and other additives are also present in small quantities

The following components are present in significant concentrations:

Chemical Name	EC No	Hazard Classification	Hazard Statement	Concentration
Bitumen	232-490-9	Not classified	None	38 - 42 %
Water	231-791-2	Not classified	None	58 - 62 %
Amines, N-(C18 unsaturated, alkyl) trimethylenedi, ethoxylated (NLP)	Reach Reg 01- 2119959296- 24-0000 EC Number 696-616-8 CAS Number 1268344-02-0	Acute Tox. 4 Skin Corr. 1B Eye Dam. 1 STOT RE 1 Aquatic Acute 1 Aquatic Chronic 1 M-factor (Acute): 10 M-factor (Chronic): 1	H302 Harmful if swallowed H314 Causes severe skin burns and eye damage H318 Causes serious eye damage H372 Causes damage to organs through prolonged or repeated exposure H400 Very toxic to aquatic life H410 Very toxic to aquatic life with long lasting effects	< 0.25 %

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Hydrochloric acid (as dilute aqueous solution)	231-595-7	Met. Corr. 1 Skin Irrit. 2 Eye Irrit. 2 STOT SE 3	H290 May be corrosive to metals H315 Causes skin irritation H319 Causes serious eye irritation H335 May cause respiratory irritation	< 0.50 %
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4. First-aid measures

- Inhalation: No known hazard
- Skin: Cold emulsion: wash with water, if irritation persists seek medical advice
 Hot emulsion: rinse affected area with cold water, do not attempt to remove bitumen, seek medical advice
- Eyes: Irrigate thoroughly with water, seek medical advice
- Ingestion Do not induce vomiting, give water to drink, seek medical advice

5. Fire-fighting measures

- Non-flammable water based emulsion
 Dried film supports combustion
 Use carbon dioxide, dry powder or foam extinguishers

6. Accidental release measures

- Contain/absorb spillage with proprietary absorbent material, sand or earth
 Transfer to waste site in sealed containers
 Prevent entry into water courses or drains
 Inform authorities if material enters drains or water courses

7. Handling and storage

- Storage of bitumen emulsion should be in accordance with the Oil Storage Regulations:
- 200lt drum in drip tray with a capacity of 25% of the drum
 - Storage tank: within impermeable bund with a capacity of not less than 110% of the volume of the storage tank
- Protect from freezing conditions
- Roll / invert containers before use and at regular intervals to prevent settlement
- Bulk stores should be circulated / agitated before use
- Hot emulsion must not be heated above 90 °C (boiling / frothing hazard)

8. Exposure controls and personal protection

Workplace Exposure Limits are listed in EH40 for bitumen (asphalt, petroleum fumes and hydrogen sulfide) and hydrochloric acid (gas / aerosol mists only) but these are not generated from Ayton C40B4 bitumen emulsion under normal storage and usage conditions

Asphalt petroleum fumes: LTEL 5 mg.m⁻³ STEL 10 mg.m⁻³
 Hydrogen sulfide: LTEL 7 mg.m⁻³ STEL 14 mg.m⁻³
 Hydrogen chloride: LTEL 2 mg.m⁻³ STEL 8 mg.m⁻³

Wear rubber / PVC gloves, eye protection and protective clothing, use barrier cream on hands

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9. Physical and chemical properties

Formula:	n/a	Flammability:	non-flammable, dried film will support combustion
Appearance:	brown / black liquid	Flash point:	n/a
Density:	0.95-1.05	Boiling point:	~100 °C
Odour:	characteristic	Acidity/alkalinity:	pH 2 to 5

10. Stability and reactivity

Conditions to avoid: Do not heat above 90 °C as boiling/frothing will result
Do not store below 2 °C to avoid freezing

Materials to avoid: alkalis (will cause emulsion to coagulate)

11. Toxicological information

Inhalation: not considered hazardous

Skin contact: due to small quantities of emulsifying agents and emulsion pH, frequent or prolonged skin contact may cause skin sensitisation, hot emulsion can cause scalding

Eye contact: may irritate eyes

Ingestion: minimal toxicity expected

12. Ecological information

Ayton C40B4 bitumen emulsion contains components classified as dangerous for the environment:

H400 Very toxic to aquatic life

H410 Very toxic to aquatic life with long lasting effects

Air: water component will evaporate to air leaving a residual solid layer of bituminous binder

Water: emulsion will disperse in water and bituminous binder components will persist in environment for considerable period of time

Soil: will form a residual solid layer of bituminous binder on adsorption / evaporation of water component

13. Disposal considerations

Waste Ayton C40B4 bitumen emulsion should be disposed of by a Registered Waste Disposal Contractor using EWC Code 08 04 16

14. Transport information

Ayton C40B4 bitumen emulsion is not classified as hazardous for road transport

Bulk supplies are to be labelled in accordance with Chemical Industries Association Black and White Marking Scheme:

Cold emulsion	(< 55 °C):	2Z BITUMEN EMULSION LOW HAZARD
Hot emulsion	(55 – 100 °C):	2X BITUMEN EMULSION HOT LIQUID

15. Regulatory information

Users are advised to refer to the following legislation for further information:

CLP EC 1272 / 2008

REACH EC 1907 / 2006

Control of Substances Hazardous to Health Regulations 2002

EH40 (UK) Workplace Exposure Limits 2005 (3rd edition 2018)

Control of Pollution (Oil Storage) Regulations 2001

Environmental Permitting Regulations 2016

The Carriage of Dangerous Goods by Road Regulations (ADR) 2019

Chemical Industries Association Road Tankers Black and White Marking Scheme 2001

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16. Other information

The above information is compiled on the basis of our best available knowledge in accordance with legislative requirements. It does not imply it is complete or accurate in all cases. It is the user's responsibility to satisfy themselves as to the application of this information / recommendations given for their own particular use.



Ayton Products is a trading name of **Kier Integrated Services Limited**

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