

1. PRODUCT IDENTIFICATION

CALBOND

Calbond: Two component cement used for bonding of carbonaceous materials.

Produced in Scotland by Calcarb Ltd

2. CHEMICAL COMPOSITION

Hazardous Substances	CAS No.	EC Number	Content %	Symbol(s)	R-phrase(s)
furfuryl alcohol	98-00-0	202-626-1	26.3%	Xn	20, 21, 22
butan-2-one	78-93-3	201-159-0	21.1%	F, Xi	11, 36
hexamine	100-97-0	202-905-8	<1.6%	F + Xn	11, 42, 43
phenol	108-95-2	203-632-7	<0.8%	T	24, 25, 34

3. HAZARD IDENTIFICATION

Highly flammable

Harmful by inhalation, in contact with the skin and if swallowed, irritating to eyes and skin.

4. EMERGENCY & FIRST AID PROCEDURES

Inhalation: Remove from exposure, rest and keep warm. In severe cases or if exposure has been great, **obtain medical attention.**

Eye contact: Rinse immediately with water. If irritation **persists seek medical attention.**

Skin contact: Wash the skin with plenty of soap and water. Remove contaminated clothing and wash before reuse. If irritation persists **seek medical attention.**

Ingestion: Wash out mouth with water. Do not induce vomiting, **seek medical attention.**

5. FIRE-FIGHTING MEASURES

Extinguisher: Water-mist, Foam, Carbon Dioxide, Dry Powder – all acceptable.
DO NOT use a full water jet extinguisher.

Protective Outfit: Wear full protective clothing and self contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal instructions:

Ventilate the areas well to dispel residual vapours. Wear appropriate protective clothing and eliminate all sources of ignition.

Environmental and cleanup instructions:

Contain spillages and adsorb using earth, sand or other inert material. Transfer into suitable containers for recovery or disposal. Try to prevent materials from entering drains and/or water courses. Advise authorities if spillage has entered course or sewer or has contaminated the soil or vegetation.

7. HANDLING & STORAGE

Do not breathe vapours and ensure adequate ventilation. Use protective clothing and gloves.

Storage area should be cool, under cover, well ventilated, away from sources of heat or ignition, out of direct sunlight, and below 30°C. Storage and transfer equipment should be adequately earthed and bonded to prevent the accumulation of static discharges. Obtain specialist advice in the choice of electrical equipment. Keep containers tightly closed.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Engineering measures:

Engineering methods to prevent or control exposure are preferred. Methods include process or personnel enclosure, mechanical ventilation (dilution and local exhaust), and control of process conditions.

Wash hands after handling compounds and before eating and drinking.

Personal Protection Equipment

Respiratory: Respiratory protection is required if there is a risk of exposure to high vapour concentration.

Skin: Wear suitable protective clothing

Hands: PVC or rubber gloves.

Eyes: Safety goggles giving full protection to eyes.

9. PHYSICAL DATA

Appearance and Odour: Black viscous fluid with pungent/solvent odour.

pH not applicable

Viscosity high

Boiling Point 170°C (approx)

Melting Point not applicable

Flash Point 86°C

Explosive limits in air 1.8 to 16.3%

Solubility (in water) miscible

S.G. (20°C) 1.5mg/m³

10. STABILITY AND REACTIVITY

Stable under normal conditions of use.
Avoid contact with strong oxidants.

11. TOXICOLOGICAL INFORMATION**Immediate Hazards**

Ingestion: Harmful if swallowed. Irritation to mucous membranes, oesophagus or gastro-intestinal tract can result.

Inhalation: Not expected to be harmful under normal conditions of use.

Skin: Harmful in contact with skin. Irritating to skin.

Eyes: Irritating to eyes.

Delayed Hazards

Phenol can cause liver, kidney, cardiac and bladder damage.

Calbond contains organic solvents.

12. ECOLOGICAL INFORMATION

Prevent contamination of soil, drains and surface waters. Contamination waste water should be treated in a suitable cleaning plant.

This product shows a low bioaccumulation potential.

13. DISPOSAL CONSIDERATION

Treat as chemical waste in accordance with all local and national regulations. Incineration is the recommended method of disposal.

14. TRANSPORTATION INFORMATION

International Transport Regulations

Proper shipping name: Cement (Flammable Solid)

UN Class: 4.1

UN Label

**15. REGULATORY INFORMATION**

EU Regulations

Hazard Symbol(s)



**HIGHLY
FLAMMABLE**



**HARMFUL/
IRRITANT**

Risk Phrases:

R11 – Highly Flammable

R20/21/22 – Harmful by inhalation, in contact with the skin and if swallowed

R36/38 – Irritating to eyes and skin.

R42/43 – May cause sensitization by inhalation and skin contact

Safety phrases

S2 – Keep out of reach of children

S16 – Keep away from sources of ignition – no smoking

S23 – Do not breathe vapour and spray

S24/25 – Avoid contact with skin and eyes

S26 – In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S51 – Use only in well-ventilated areas.

16. OTHER INFORMATION**Uses and Restrictions**

Calbond; Two component cement used for the bonding of carbonaceous materials.

Training and Related Advice

This document contains important information to ensure the safe storage, handling and use of this product. The information in this document should be brought to the attention of the person in your organisation responsible for advising on safety matters.

Other Literature:

-Control of Substances Hazardous to Health Regulations 2002

-EH 40: Occupational Exposure Limits

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Revision Details:

Amended to comply with both the requirements of the safety data sheet directive 2001/58/EC and Regulation 5 of The Chemical (Hazard information and packing for supply) Regulations 2002

Publication and Revision Dates

Original Approval Date: 4th March 2004

This Revision Date: 18th November 2008

Disclaimer

The technical information provided in this MSDS should only be used for the purpose of assessing hazards with respect to safety or the environment. It should not be used as a technical specification or for engineering calculations.

The information contained herein is accurate to the best knowledge and belief of Calcarb Ltd and intended to describe the product for the purposes of health, safety and environmental requirements only. It is not intended, and should not be construed, as a warranty. Calcarb Ltd should be consulted for further information.