



constructing the food industry

flooring and drainage

Food-Coat HBTM

High Build Solvent Free Epoxy Floor & Wall Coating

Description

FOOD-COAT HBTM is a solvent free high build epoxy coating that has been developed to provide protective and decorative properties to concrete, steel and other substrates.

The material when mixed will give an easily applied product that will leave a chemical and abrasion resistant surface finish.

Typical Uses

As a waterproof tough floor coating in food factories, abattoirs, dairies, breweries, cold stores etc.

As a chemically resistant coating for bunded areas.

As an Anti-Graffiti coating.

As an hygienic, easily cleanable surface on walls, ceilings etc.

As an internal lining for concrete or steel storage tanks containing oils, chemicals, water etc.

Advantages

- Solvent Free, low odour and environmentally friendly.
- Available in a range of colours.
- Hygienic and easily cleaned
- Excellent chemical resistance to water, oils, skydrol, petrol, diluted acids, alkalis and many solvents.
- Very good adhesion to concrete and steel.
- Tough and durable.

Typical Properties

Colours: Light, Mid & Dark Grey, Tile Red, Safety Red, Mustard Yellow, Safety Yellow, Light Green, Dark Green, Ocean Blue (all as standard – other colours with a BS4800 or RAL No on request).

Pot Life: 60 minutes @ 20°C - 120 minutes @ 10°C.

Application Temperatures: Minimum 3°C – Maximum 30°C.

Coverage: 0.25 – 0.30 Kg/m²/coat.

KDH Projects Ltd

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Typical Properties

Tack Free Time @ 20°C - 5 hours

Hard Dry Time @ 20°C - 12 hours

Full Chemical Resistance – 7 days @ 20°C

Adhesive Strength to Concrete – 3.9N/mm² (concrete failure)

Adhesive Strength to Mild Steel - >12N/mm²

1) Surface preparation

Concrete surfaces shall be a minimum of 21 days old and/or the residual moisture content shall be below 6%.

Ensure that the concrete is clean and free from dust, laitance, grease, oil, curing compounds, existing paint finishes etc. Blow holes and defective concrete shall be made good using a suitable proprietary repair compound.

It is recommended that a suitable mechanical surface treatment such as vacuum gritblasting, or a chemical process such as acid etching is used prior to application of the new coating system to ensure a clean uncontaminated mechanically “keyed” surface.

2) Mixing

Pour the contents of the FOOD-COAT HB™ base resin component into the FOOD-COAT HB™ hardener component container or a suitable clean vessel and mix by mechanical means until a uniform colour and appearance is obtained.

The mixed material may be thinned by the addition of up to a maximum of 5% by volume of potable water.

3) Application Techniques

Apply by brush, roller or airless spray to the prepared surface at a nominal rate of 0.25 to 0.30 Kg/m² per coat which is equivalent to a dry film thickness of 200 – 225 microns. A minimum two coat treatment is recommended, applying subsequent coats after a minimum interval of 18 hours and maximum 48 hours curing. Ensure good ventilation after application as this speeds up the physical drying stage of the curing process.

NOTE: For absorbent surfaces, it is recommended that a priming layer of FOOD-PRIME™ be applied at a nominal rate of 0.20 Kg/m², prior to the coating application.

If a non slip finish be required, a suitable silica sand should be scattered on to the first coat of FOOD-COAT HB™ while it is still wet, the following day any excess sand may be swept from the surface using a clean brush prior to the application of the second coat of FOOD-COAT HB™.

4) Equipment Cleaning

All equipment is to be cleaned with a suitable tool cleaning solvent prior to curing of the resin.

5) Curing

Allow to cure for a minimum of 24 hours @ 20°C prior to foot traffic, and for a minimum of 48 hours prior to normal vehicular traffic. Full chemical resistance will be achieved following 7 days cure @ 20°C .

6) Cleaning of FOOD-COAT HB™

Regular cleaning of the applied system is recommended in order to maintain durability properties and cosmetics. Normal proprietary cleaning agents in combination with pressure washing/steam cleaning may be employed.

7) Coverage

A 5 Kg pack is sufficient to coat 8.3 – 10m² for the recommended two coat treatment, providing an overall dry film thickness of 425 – 500 microns.

8) Packaging

FOOD-COAT HB™ is supplied in both 5 Kg and 10 Kg plastic drum packs.

9) Storage and Shelf Life

Store in dry, frost free conditions at temperatures between 10°C and 25°C. FOOD-COAT HB™ has a minimum shelf life of 12 months when stored in original unopened containers in accordance with our instructions.

10) Limitations

Do not apply to wet or uncured concrete surfaces.
Do not apply at temperatures of 3°C or less.

11) Health and Safety

Avoid contact of the material with skin and eyes.
Wear appropriate gloves, overalls and eye protection during use.
Please refer to Material Safety Data Sheet for additional Information, for specific advice regarding any aspect of this product, please consult our Technical Section.

12) General Guidance

This Data Sheet is for general guidance purposes only and may contain information that is inappropriate for certain conditions of use. Accordingly, all recommendations and suggestions are made without guarantee. Further information is available from our Technical Department. Please consult our Sales Department to confirm that this Data Sheet is the current issue.





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Food-Coat HBTM

material data safety sheet (part Ai)

This data sheet provides the information required by the Chemicals (Hazard Information and Packaging) Regulations.

1. Identification of Substance/Supplier

Blend of liquid epoxy resins and diluents.

Cemart Resins Ltd.
Unit 11 Hunslet Trading Estate
Severn Way
Leeds
LS10 1BL

2. Composition/Information on Ingredients

2.1. Chemical Description

- A) Epoxy resin (number average molecular weight <700) CAS No 25068-38-6 (80 - 100 %)
- B) Bisphenol F-epichlorohydrin resin with number average molecular weight <700 CAS No. 28064-14-4 (15—35 %)
- C) Aliphatic glycidylether CAS No. 68081-84-5 (5 - 25 %)

2.2. Classification

- A) Xi, N. R36/38-R43-R51/53
- B) Xi, N. R36/38-R43-R51/53
- C) Xi, N. R36/38-R43-R51/53

3. Hazards Identification

Irritating to eyes and skin. May cause sensitisation by skin contact.

3.1. Classification

Xi, N;R36/38, R43, R51/53.

4. First Aid Measures

Eye Contact

Remove any contact lenses from the eyes before rinsing. Wash eyes immediately with clean water for at least 15 minutes and seek medical advice without delay.

Skin Contact

Wash the affected area thoroughly with soap and water before continuing. If irritation, pain or other skin trouble occurs, seek medical advice. Contaminated clothing should be removed and washed thoroughly before use. NOTE! Effects may be delayed.

Ingestion

Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Wash out mouth with water and give patient plenty of water or milk to drink.

Inhalation

If irritation occurs, move to fresh air. If nose or airways become inflamed seek medical advice.

5. Fire Fighting Measures

5.1. Extinguishing Media

Foam, carbon dioxide or dry powder. Larger fires: Water spray, fog or mist.

5.2. Special Fire Fighting Procedures

Keep run-off water out of sewers and water sources. Dike for water control. NOTE! Use air supplied respirators to protect against gases/fumes. Move container from fire area if it can be done without risk. If risk of water pollution occurs, notify appropriate authorities. Keep up-wind to avoid fumes.

5.3. Unusual Fire & Explosion Hazards

Prolonged exposure to heat may lead to formation of toxic gases.

5.4. Specific Hazards

Fire or high temperatures create toxic gases / vapours / fumes.

6. Accidental Release Measures

6.1. Personal Precautions

(See 8.3)

6.2. Environmental Precautions

Do not allow to enter drains, sewers or watercourses. Collect and dispose of spillage as indicated in section 13.

6.3. Method of Cleaning

Do not touch spilled material. Avoid contact with skin or inhalation of spillage, dust or vapour. Provide ventilation and confine spill. Do not allow runoff to sewer. Clean-up personnel should use respiratory and/or liquid contact protection. Collect with absorbent, non-combustible material into suitable containers. Shovel into dry containers. Cover and move the containers. Flush the area with water. Containers with collected spillages must be properly labelled with correct contents and hazard symbol.

7. Storage and Handling

7.1. Storage

Keep away from heat, sparks and open flame. Store at moderate temperatures in a dry, well ventilated area. Isocyanates react with water to liberate carbon dioxide. Any ingress of moisture into an isocyanate container, whether full or empty, can lead to pressure build up and subsequent explosion.

7.2. Handling

Avoid spilling, skin and eye contact.

8. Exposure Controls

8.1. Workplace Exposure Limits

Non established.

8.2. Engineering Control Measures

Provide adequate general and local exhaust ventilation. Provide eyewash station.

8.3. Recommended Protective Equipment Respiratory Protection

Not normally required. In a confined space, use chemical cartridge protection with appropriate cartridge suitable for organic substances.

Hand and Skin Protection

Chemical resistant gloves required for prolonged or repeated contact or where there is a risk of direct contact or splashing. Use protective gloves made of nitrile or neoprene.

Eye Protection

Splash proof goggles should be worn. Contact lenses should not be worn when working with this chemical. Provide eyewash station.

9. Physical/Chemical Properties

9.1. Physical Data

Physical state	Liquid
Colour	Various
Odour	Slight
Solubility	Organic solvents
Relative Density	1.5 - 2.0 @ 20°C
Vapour Density	8.5
Vapour Pressure	< 0.0001 @ 25°C
Viscosity	250—300 mPas @ 25°C
Flash Point	> 150 °C (closed cup)
Boiling Point	> 300 °C
Auto ignition Temp.	> 400 °C

This data sheet provides the information required by the Chemicals (Hazard Information and Packaging) Regulations.

10. Stability and Reactivity

Stable under normal conditions. Conditions to avoid: Heat, sparks, flames. Reacts with strong oxidising agents. Polymerises exothermally with amines, mercaptans and Lewis acids at ambient temperature and above. Polymerises in contact with caustic soda.

Reacts exothermally with bases (eg caustic soda), ammonia, primary and secondary amines, alcohols and acids.

11. Toxicological Information

11.1 Short Term Effects

Eye Contact

Irritating to eyes.

Skin Contact

Slightly irritant.

Ingestion

May cause discomfort if swallowed.

12. Ecological Information

12.1 Ecotoxicity

Product sinks in water. Expected to not be fully biodegradable. Has the potential to bioaccumulate.

13. Disposal Considerations

Dispose of waste and residues in accordance with local authority requirements. Do not allow runoff to sewer, waterway or ground.

14. Transport Information

Road /Rail transport ADR/RID

Class: 9

Item: 11(C)-

Hazard symbol: Miscellaneous substances

Proper shipping name:

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (CONTAINS EPOXY RESIN)

Kemler number: 90

UN number: 3082

Maritime transport IMO

UN number: 3082

Class: 9

Packing group: III

Hazard symbol: Miscellaneous substances

Marine pollutant: No

Proper shipping name:

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (CONTAINS EPOXY RESIN)

Maritime transport IMO

UN number: 3082

Class: 9

Packing group: III

Hazard symbol: Miscellaneous substances

Marine pollutant: No

Proper shipping name:

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (CONTAINS EPOXY RESIN)

Air transport ICAO/IATA

UN number: 3082

Class: 9

Packing group: III

Hazard symbol: Miscellaneous substances

Proper shipping name:

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (CONTAINS EPOXY RESIN)

15. Regulatory Information

15.1. Chemicals (Hazard Information & Packaging) Regulations

Classification: Irritant. Dangerous for the environment.

15.2 Contains

Epoxy resin (number average molecular weight <700)

15.3. Risk Phrases

- (R36/38) Irritating to eyes and skin.
- (R43) May cause sensitisation skin contact.
- (R51/53) Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

15.4. Safety Phrases

- (S24) Avoid contact with the skin.
- (S26) In case of contact with the eyes, rinse immediately with plenty of water and seek medical advice.
- (S28A) After contact with skin, wash immediately with plenty of soap and water.
- (S37/39) Wear suitable gloves and eye/face protection.
- (S61) Avoid release to the environment. Refer to special instructions/safety data sheets.

16. Legislation and Other Information

- Health & Safety at Work Act 1974.
- Control of Substances Hazardous to Health (Regulations).
- HSE Guidance Note EH40 (Workplace Exposure Limits).
- Any authorised manual on First Aid by St. Johns/St. Andrews/Red Cross.
- Manual Handling Operations Regulations 1992.
- Environmental Protection Act.
- Dangerous Substances Directive 67/548/EEC.

17. Other Information

Revisions

None.

Revision Date

Not applicable.



CORROSIVE

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Food-Coat HBTM

material data safety sheet (part Bi)

This data sheet provides the information required by the Chemicals (Hazard Information and Packaging) Regulations.

1. Identification of Substance/Supplier

Blend of amines.

Cemart Resins Ltd.
Unit 11 Hunslet Trading Estate
Severn Way
Leeds
LS10 1BL

2. Composition/Information on Ingredients

2.1. Chemical Description

- A) Formaldehyde, polymer with benzene-amine, hydrogenated CAS No. 135108-88-2 (> 30 %)
- B) Benzyl alcohol CAS No. 100-51-6 (< 50%)
- C) N-aminoethylpiperazine CAS No. 140-31-8 (< 25 %)

2.2. Classification

- A) C; R22 R34
- B) Xn; R20/22
- C) C; R21/22 R34 R43 R52/53

3. Hazards Identification

Harmful to aquatic organisms (R52). May cause long-term adverse effects in the aquatic environment (R53). May cause sensitisation by skin contact (R43). Causes burns (R34). Harmful by inhalation and if swallowed (R20/22).

3.1. Signs and Symptoms of Exposure (Acute Effects)

Burns of the eye may cause blindness. Contact with the skin may cause dryness (defatting), itching and/or rash. Contact of undiluted product with eyes or skin quickly causes severe irritation and pain and may cause burns, necrosis and permanent injury. Inhalation of aerosols and mists may severely damage contacted tissue and produce scarring. Product is readily absorbed through the skin and may cause nausea, headache and general discomfort.

3.2. Signs and Symptoms of Exposure (Possible Longer Term Effects)

Repeated and/or prolonged exposure may cause allergic reaction/sensitisation. Repeated and/or prolonged exposure may result in adverse eye effects (such as conjunctivitis or corneal damage), adverse skin effects (such as defatting, rash or irritation), adverse skin effects (such as rash, irritation or corrosion). Dryness of nasal passages may be experienced when material is inhaled over a long period of time.

4. First Aid Measures

Eye Contact

Wash eyes immediately with clean water for at least 15 minutes and seek medical advice without delay.

Skin Contact

Remove contaminated clothing and shoes. Remove product and immediately flush affected area with water for at least 15 minutes. Destroy contaminated leather apparel. Cover the affected area with a sterile dressing or clean sheeting and transport for medical care. Do not apply greases or ointments. Control shock, if present. Launder contaminated clothing prior to reuse.

Ingestion

Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Administer 3 - 4 glasses of milk or water.

Inhalation

Move patient to fresh air. If breathing has stopped or is laboured give mouth- to-mouth. Supplemental oxygen may be indicated. Seek medical advice. Prevent aspiration of vomit. Turn victims head to the side.

5. Fire Fighting Measures

5.1. Extinguishing Media

Foam, carbon dioxide or dry powder. Larger fires: Water spray, fog or mist.

5.2. Special Fire Fighting Procedures

Keep run-off water out of sewers and water sources. Dike for water control. NOTE! Use air supplied respirators to protect against gases/fumes. Move container from fire area if it can be done without risk. If risk of water pollution occurs, notify appropriate authorities. Keep up-wind to avoid fumes.

5.3. Unusual Fire & Explosion Hazards

Prolonged exposure to heat may lead to formation of toxic gases.

5.4. Specific Hazards

Fire or high temperatures create toxic gases/vapours/fumes.

6. Accidental Release Measures

6.1. Personal Precautions

(See 8.3)

6.2. Environmental Precautions

Do not allow to enter drains, sewers or watercourses. Collect and dispose of spillage as indicated in section 13.

6.3. Method of Cleaning

Do not touch spilled material. Avoid contact with skin or inhalation of spillage, dust or vapour. Provide ventilation and confine spill. Do not allow runoff to sewer. Clean-up personnel should use respiratory and/or liquid contact protection. Collect with absorbent, non-combustible material into suitable containers. Shovel into dry containers. Cover and move the containers. Flush the area with water. Containers with collected spillages must be properly labelled with correct contents and hazard symbol.

7. Storage and Handling

7.1. Storage

Keep away from acids and oxidisers. Store at moderate temperatures in a dry, well ventilated area.

7.2. Handling

Avoid spilling, skin and eye contact.

8. Exposure Controls

8.1. Workplace Exposure Limits

Non established.

8.2. Engineering Control Measures

Provide adequate general and local exhaust ventilation. Provide eyewash station.

8.3. Recommended Protective Equipment

Respiratory Protection
Not normally required. In a confined space, use chemical cartridge protection with appropriate cartridge suitable for organic substances.

Hand and Skin Protection

Chemical resistant gloves required for prolonged or repeated contact or where there is a risk of direct contact or splashing. Use protective gloves made of nitrile or neoprene.

Eye Protection

Splash proof goggles should be worn. Contact lenses should not be worn when working with this chemical. Provide eyewash station.

9. Physical/Chemical Properties

9.1. Physical Data

Physical state	Liquid
Colour	Amber
Odour	Ammoniacal
Relative Density	1.0 - 1.1 @ 20°C
Viscosity	(25 °C) 200 - 300 mPas@
Flash Point	> 100 °C (closed cup)
Boiling Point	> 200 °C

This data sheet provides the information required by the Chemicals (Hazard Information and Packaging) Regulations.

10. Stability and Reactivity

Stable under normal conditions. Materials to avoid: Mineral acids, organic acids, oxidising agents, reactive metals, sodium or calcium hypochlorite. Produces carbon monoxide and carbon dioxide in a fire and ammonia when heated. Nitrogen oxides produced in a fire.

11. Toxicological Information

11.1 Short Term Effects

Eye Contact

Irritating to eyes.

Skin Contact

Slightly irritant.

Ingestion

May cause discomfort if swallowed.

12. Ecological Information

12.1 Ecotoxicity

No data.

13. Disposal Considerations

Dispose of waste and residues in accordance with local authority requirements. Do not allow runoff to sewer, waterway or ground.

14. Transport Information

Road /Rail transport ADR/RID

Class: 8

Packing group: III

Proper shipping name: AMINES, LIQUID, CORROSIVE, NOS (FORMALDEHYDE, POLMER WITH BENZENE AMINE, HYDROGENATED/N -AMINOETHYLPIPERAZINE)

UN number: 2735

Maritime transport IMO

UN number: 2735

Class: 8

Packing group: III

Proper shipping name: AMINES, LIQUID, CORROSIVE, NOS (FORMALDEHYDE, POLMER WITH BENZENE AMINE, HYDROGENATED/N -AMINOETHYLPIPERAZINE)

Air transport ICAO/IATA

UN number: 2735

Class: 8

Packing group: III

Proper shipping name: AMINES, LIQUID, CORROSIVE, NOS (FORMALDEHYDE, POLMER WITH BENZENE AMINE, HYDROGENATED/N -AMINOETHYLPIPERAZINE)

15. Regulatory Information

15.1. Chemicals (Hazard Information & Packaging) Regulations

Classification: CORROSIVE

15.2 Contains

AMINES, LIQUID, CORROSIVE, NOS

15.3. Risk Phrases

- (R20/22) Harmful by inhalation and if swallowed.
- (R34) Causes burns.
- (R43) May cause sensitisation skin contact.
- (R52) Harmful to aquatic organisms.
- (R53) May cause long-term adverse effects in the aquatic environment.

15.4. Safety Phrases

- (S26) In case of contact with the eyes, rinse immediately with plenty of water and seek medical advice.
- (S45) In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
- (S36/37/39) Wear suitable protective clothing, gloves and eye/face protection.
- (S61) Avoid release to the environment. Refer to special instructions/safety data sheets.

16. Legislation and Other Information

- Health & Safety at Work Act 1974.
- Control of Substances Hazardous to Health (Regulations).
- HSE Guidance Note EH40 (Workplace Exposure Limits).
- Any authorised manual on First Aid by St. Johns/St. Andrews/Red Cross.
- Manual Handling Operations Regulations 1992.
- Environmental Protection Act.
- Dangerous Substances Directive 67/548/EEC.

17. Other Information

Revisions

None.

Revision Date

Not applicable.