1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1 Product identifier

GHS Product Identifier: Bare Conductive Paint
Chemical Name: Water-based dispersion of carbon pigment in Natural resin
Other names: 
CAS No.: Mixture — Not applicable
EINECS No.: Mixture — Not applicable

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified use(s): Electrically conductive paint
Uses advised against: None

1.3 Details of the supplier of the safety data sheet

Company Identification: Bare Conductive Limited
First Floor
98 Commercial Street
London E1 6LZ
Telephone: +44 (0)20 3432 5385
E-Mail (competent person): info@bareconductive.com

1.4 Emergency telephone number

Emergency Phone No.: +44 (0)20 3432 5385 / Technical manager

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

2.1.1 Regulation (EC) No. 1272/2008 (CLP)

Preparation is not classified as hazardous according to Directives 1999/45/EC.

2.2 Label elements

2.2.1 Label elements: According to Regulation (EC) No. 1272/2008 (CLP)
2.2.2 Label elements: According to Directive 1999/45/EC

Hazard Symbol: Not applicable
Risk Phrases: Not applicable
Safety Phrases: Not applicable

2.3 Other hazards

2.4 Additional information
3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substances

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>%W/W</th>
<th>CAS No.</th>
<th>EC No.</th>
<th>Hazard statement(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Resin</td>
<td></td>
<td>Trade secret</td>
<td>Trade secret</td>
<td>Not classified.</td>
</tr>
<tr>
<td>Conductive carbon</td>
<td></td>
<td>Trade secret</td>
<td>Trade secret</td>
<td>Not classified.</td>
</tr>
<tr>
<td>Humectant</td>
<td></td>
<td>Trade secret</td>
<td>Trade secret</td>
<td>Not classified.</td>
</tr>
<tr>
<td>Processing aids and preservatives</td>
<td></td>
<td>Trade secret</td>
<td>Trade secret</td>
<td>Individual levels below 1% do not give rise to classification</td>
</tr>
</tbody>
</table>

EC Classification No. 67/548/EEC

<table>
<thead>
<tr>
<th>Hazard statement(s)</th>
<th>%W/W</th>
<th>CAS No.</th>
<th>EC No.</th>
<th>Classification and Risk Phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3.2 Substances

For full text of R/H/P phrases see section 16.

4. FIRST AID MEASURES

4.1 Description of first aid measures

- **Inhalation**: Remove patient from exposure. Give oxygen if breathing difficult. Apply artificial respiration if necessary. Obtain medical attention if ill effects occur.
- **Skin Contact**: Wash affected skin with plenty of soap and water. Remove contaminated clothing and wash before reuse. Obtain medical attention if ill effects occur.
- **Eye Contact**: If substance has got into the eyes, immediately wash out with plenty of water for at least 15 minutes. Obtain medical attention.
- **Ingestion**: If swallowed, rinse mouth with water (only if the person is conscious). Do not induce vomiting. Obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

- Unlikely to cause harmful effects under normal conditions of handling and use.

4.3 Indication of the immediate medical attention and special treatment needed

- None

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

- Suitable Extinguishing Media: As appropriate for surrounding fire.
- Unsuitable Extinguishing Media: As appropriate for surrounding fire.

5.2 Special hazards arising from the substance or mixture

- Combustion or thermal decomposition will evolve toxic and irritant vapours. (Nitrogen oxides)

5.3 Advice for fire-fighters

- Self-contained breathing apparatus to be worn if involved in fire. Water spray should be used to cool containers.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

- Put on protective clothing.

6.2 Environmental precautions

- Do not allow to enter drains, sewers or watercourses. If substance has entered a watercourse or sewer advise police and water authority.

6.3 Methods and material for containment and cleaning up

- Adsorb spillages onto sand, earth or any suitable absorbent material. Transfer to a lidded container for disposal. Clean area afterward with water and detergent.

6.4 Reference to other sections

See Section: 8 (Exposure controls / PPE) & 13 (Disposal)
7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Avoid contact with skin and eyes. Natural ventilation is adequate.

7.2 Conditions for safe storage, including any incompatibilities
<table>
<thead>
<tr>
<th>Property</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage Temperature</td>
<td>Maximum temperature 25 degC. Product may be refrigerated but do not freeze</td>
</tr>
<tr>
<td>Storage Life</td>
<td>Six months at 25 degC. After opening, use within two months</td>
</tr>
<tr>
<td>Incompatible materials</td>
<td>Strong oxidising agents.</td>
</tr>
<tr>
<td>Other information</td>
<td>Product may settle on storage Stir thoroughly before use</td>
</tr>
</tbody>
</table>

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

8.1.1 Occupational Exposure Limits
<table>
<thead>
<tr>
<th>Limit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LTEL (8 hr TWA mg/m³)</td>
<td>Not listed</td>
</tr>
<tr>
<td>LTEL (8 hr TWA mg/m³)</td>
<td>Not listed</td>
</tr>
</tbody>
</table>

8.2 Exposure controls

8.2.1 Appropriate engineering controls
Ventilation recommended. Follow the principles of good occupational hygiene to control personal exposures.

8.2.2 Personal protection equipment

<table>
<thead>
<tr>
<th>Protection</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye/face protection</td>
<td>Safety spectacles recommended</td>
</tr>
<tr>
<td>Skin protection</td>
<td>Plastic or rubber gloves recommended (Hand protection/ Other).</td>
</tr>
<tr>
<td>Respiratory protection</td>
<td>No personal respiratory protective equipment normally required.</td>
</tr>
<tr>
<td>Other</td>
<td>General hygiene measures for the handling of chemicals are applicable. Wash hands before breaks and after work. Wash contaminated clothing before reuse.</td>
</tr>
</tbody>
</table>

8.2.3 Environmental Exposure Controls
Do not allow to enter drains, sewers or watercourses.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties (Solution)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>Black</td>
</tr>
<tr>
<td>Odour</td>
<td>Slight</td>
</tr>
<tr>
<td>Odour Threshold (ppm)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>pH (Value)</td>
<td>5-7</td>
</tr>
<tr>
<td>Melting Point (°C) / Freezing Point (°C)</td>
<td>Approx -10 degC</td>
</tr>
<tr>
<td>Boiling point/boiling range (°C)</td>
<td>Approx 102 – 105 degC</td>
</tr>
<tr>
<td>Flash Point (°C) [Closed cup]</td>
<td>Not applicable. (Not combustible)</td>
</tr>
<tr>
<td>Evaporation rate (Water = 1)</td>
<td>1</td>
</tr>
<tr>
<td>Explosive limit ranges</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapour Pressure (mmHg)</td>
<td>17 mmHg at 20 degC (Water)</td>
</tr>
<tr>
<td>Vapour Density (Air=1)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Density (g/ml)</td>
<td>1.2 – 1.25 at 25 degC</td>
</tr>
<tr>
<td>Solubility (Water)</td>
<td>Partially soluble</td>
</tr>
<tr>
<td>Solubility (Other)</td>
<td>Partially soluble in organic solvents</td>
</tr>
<tr>
<td>Partition Coefficient (n-Octanol/water)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Auto Ignition Temperature (°C)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Decomposition Temperature (°C)</td>
<td>&gt; 100 degC (Partly Evaporates)</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Viscous liquid</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not explosive</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>Not oxidising</td>
</tr>
</tbody>
</table>

9.2 Other information
10. STABILITY AND REACTIVITY

10.1 Reactivity  Oxidises
10.2 Chemical stability  Stable under normal conditions
10.3 Possibility of hazardous reactions  Possibility of highly exothermic reaction with strong oxidizing agents
10.4 Conditions to avoid  High temperatures
10.5 Incompatible materials  Strong oxidising agents
10.6 Hazardous Decomposition  Product(s) Nitrogen oxides

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

11.1.1 Substances

Acute toxicity

Ingestion  LD50 > 10,000 mg/kg (rat) (Calculated as product)
Inhalation (4 hrs)  Not applicable
Skin Contact  LD50 > 10,000 mg/kg (rabbit) (Calculated as product)
Skin corrosion / irritation  Unlikely to cause skin irritation
Serious eye damage / irritation  Product is slightly irritant to eyes. Contains low concentrations (< 0.5%) of corrosive ingredients
Respiratory or skin sensitization  Product is not sensitizing
Mutagenicity  There is no evidence of mutagenic potential
Carcinogenicity  No evidence of carcinogenicity
Reproductive toxicity  No evidence of reproductive toxicity
Ingestion: Nausea, vomiting
STOT-repeated exposure  (91 days)  NOAEL > 10,000 mg/kg/day (rat) (Calculated as product)

11.2 Other information

12. ECOLOGICAL INFORMATION

12.1 Toxicity

(Fish) (96 hrs)  LC50 > 1000 mg/l (Calculated as product)
(Daphnia magna) (48 hrs)  EC50 > 1000 mg/l (Calculated as product)
(Algae) (72 hrs)  EC50 > 1000 mg/l (Calculated as product)

12.2 Persistence and degradability  The organic ingredients are Biodegradable

12.3 Bioaccumulative potential  (96 hrs)  The product has no potential for bioaccumulation.

12.4 Mobility in soil  The substance is predicted to have high mobility in soil.

12.5 Results of PBT and vPvB assessment  Not classified as PBT or vPvB.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods  Do not empty into drains. Dispose of this material and its container at waste collection centre. Dried paint may be disposed of by landfill in accordance with local regulations.
13.2 Additional Information  The waste is considered to be non hazardous.
13.6 Other adverse effects

14. TRANSPORT INFORMATION

14.1 Land transport (ADR/RID)  UN number  Not classified as dangerous for transport.
14.2 Sea transport (IMDG)  UN number  Not classified as dangerous for transport.
14.3 Air transport (ICAO/IATA)  UN number  Not classified as dangerous for transport.
15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1 EU regulations
Authorisations and / or restrictions on use. Not applicable

15.1.2 National regulations Not applicable

15.2 Chemical Safety Assessment No Chemical Safety Assessment (CSA) has been carried out

16. OTHER INFORMATION

References
- European Chemicals Agency
- European Chemicals Bureau
- European Regulations and Directives
- Published chemical directories
- Suppliers’ safety data sheets
- UK Health and Safety Executive

Risk Phrases

Safety Phrases

Additional Information

Information contained in this publication or as otherwise supplied to Users is believed to be accurate and is given in good faith, but it is for the Users to satisfy themselves of the suitability of the product for their own particular purpose. Bare Conductive Limited gives no warranty as to the fitness of the product for any particular purpose and any implied warranty or condition (statutory or otherwise) is excluded except to the extent that exclusion is prevented by law. Bare Conductive Limited accepts no liability for loss or damage (other than that arising from death or personal injury caused by defective product, if proved), resulting from reliance on this information. Freedom under Patents, Copyright and Designs cannot be assumed.

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