

SAFETY DATA SHEET

EMP110 Part B (H5803 LED)

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

1. Identification

Product identifier

Product name EMP110 Part B (H5803 LED)

Recommended use of the chemical and restrictions on use

Application Printing ink.

Uses advised against No specific uses advised against are identified.

Details of the supplier of the safety data sheet

Supplier Electra Polymers Ltd
Roughway Mill
Tonbridge
Kent TN11 9SG
UK

Tel: +44 1732 811118

Fax: +44 1732 811119

Emergency telephone number

Emergency telephone +44 (0)1732 811 118 (08.30 - 17.00 GMT)

2. Hazard(s) identification

Classification of the substance or mixture

Physical hazards Not Classified

Health hazards Skin Irrit. 2 - H315 Skin Sens. 1 - H317

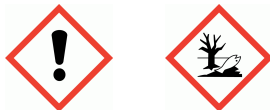
Environmental hazards Aquatic Chronic 2 - H411

Human health The product contains organic solvents. Considered to be a low inhalation hazard at normal workplace temperatures. Causes serious eye irritation. Causes skin irritation. May cause skin sensitization or allergic reactions in sensitive individuals.

Environmental The product contains a substance which is toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

Label elements

Pictogram



Signal word Warning

Hazard statements H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H411 Toxic to aquatic life with long lasting effects.

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Precautionary statements	P261 Avoid breathing vapor/ spray.
	P264 Wash contaminated skin thoroughly after handling.
	P272 Contaminated work clothing must not be allowed out of the workplace.
	P273 Avoid release to the environment.
	P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
	P302+P352 If on skin: Wash with plenty of water.
	P321 Specific treatment (see medical advice on this label).
	P332+P313 If skin irritation occurs: Get medical advice/ attention.
	P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.
	P362+P364 Take off contaminated clothing and wash it before reuse.
	P391 Collect spillage.
P501 Dispose of contents/ container in accordance with national regulations.	

Contains EPOXY RESIN (Number average MW <= 700), Ethoxylated (3) trimethylolpropane triacrylate

Other hazards

This product does not contain any substances classified as PBT or vPvB. May cause skin sensitization or allergic reactions in sensitive individuals.

3. Composition/information on ingredients

Mixtures

EPOXY RESIN (Number average MW <= 700)	30-60%
CAS number: 25068-38-6	
Classification	
Skin Irrit. 2 - H315	
Eye Irrit. 2 - H319	
Skin Sens. 1 - H317	
Aquatic Chronic 2 - H411	
Ethoxylated (3) trimethylolpropane triacrylate	1-5%
CAS number: 28961-43-5	
Classification	
Eye Irrit. 2 - H319	
Skin Sens. 1 - H317	

The full text for all hazard statements is displayed in Section 16.

4. First-aid measures

Description of first aid measures

General information	Get medical attention if any discomfort continues. Treat symptomatically.
Inhalation	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention if any discomfort continues.
Ingestion	Do not induce vomiting. Get medical attention if any discomfort continues.
Skin Contact	Wash skin thoroughly with soap and water. Get medical attention if irritation persists after washing. Take off contaminated clothing and wash it before reuse.
Eye contact	Remove contact lenses, if present and easy to do. Continue rinsing. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing.

Most important symptoms and effects, both acute and delayed

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General information	Treat symptomatically.
Inhalation	No specific symptoms known. May cause respiratory irritation.
Ingestion	No specific symptoms known. May cause irritation.
Skin contact	Causes skin irritation. May cause sensitisation by skin contact.
Eye contact	Causes serious eye irritation.

Indication of immediate medical attention and special treatment needed

Notes for the doctor	No specific recommendations.
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5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media	Extinguish with foam, carbon dioxide, dry powder or water fog.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

Special hazards arising from the substance or mixture

Specific hazards	None.
Hazardous combustion products	Thermal decomposition or combustion products may include the following substances: Oxides of carbon. Toxic gases or vapors.
Advice for firefighters	
Protective actions during firefighting	No specific firefighting precautions known.
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions	Wear protective clothing as described in Section 8 of this safety data sheet. No smoking, sparks, flames or other sources of ignition near spillage.
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Environmental precautions

Environmental precautions	Do not discharge into drains or watercourses or onto the ground. Avoid the spillage or runoff entering drains, sewers or watercourses. Contain spillage with sand, earth or other suitable non-combustible material.
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Methods and material for containment and cleaning up

Methods for cleaning up	Eliminate all sources of ignition. No smoking, sparks, flames or other sources of ignition near spillage. Provide adequate ventilation. Absorb spillage with non-combustible, absorbent material. Collect and place in suitable waste disposal containers and seal securely.
Reference to other sections	Wear protective clothing as described in Section 8 of this safety data sheet. For waste disposal, see Section 13.

7. Handling and storage

Precautions for safe handling

Usage precautions	Avoid inhalation of vapors and spray/mists. Wear protective clothing, gloves, eye and face protection.
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Advice on general occupational hygiene Good personal hygiene procedures should be implemented. Do not eat, drink or smoke when using this product. Wash after use and before eating, smoking and using the toilet. Remove contaminated clothing and protective equipment before entering eating areas.

Conditions for safe storage, including any incompatibilities

Storage precautions Keep away from heat, sparks and open flame. Store in tightly-closed, original container. Protect from freezing and direct sunlight.

Storage class Miscellaneous hazardous material storage.

Specific end uses(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.

8. Exposure Controls/personal protection

Exposure controls

Protective equipment



Appropriate engineering controls Provide adequate general and local exhaust ventilation.

Eye/face protection Wear eye protection.

Hand protection Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. Wear protective gloves made of the following material: Butyl rubber. Nitrile rubber. Neoprene. Polyvinyl chloride (PVC). Laminate of polyethylene and ethylene vinyl alcohol (PE/EVOH).

Other skin and body protection Wear apron or protective clothing in case of contact.

Hygiene measures Do not eat, drink or smoke when using this product. Use engineering controls to reduce air contamination to permissible exposure level. Wash after use and before eating, smoking and using the toilet. Provide eyewash station. Wash contaminated clothing before reuse.

Respiratory protection No specific requirements are anticipated under normal conditions of use.

Environmental exposure controls Residues and empty containers should be taken care of as hazardous waste according to local and national provisions. Avoid the spillage or runoff entering drains, sewers or watercourses. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance Liquid.

Color White.

Odor threshold Not determined.

pH Not determined.

Melting point Not determined.

Initial boiling point and range Not determined.

Flash point Not determined.

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Evaporation rate	Not determined.
Evaporation factor	Not determined.
Flammability (solid, gas)	Not determined.
Upper/lower flammability or explosive limits	Not determined.
Other flammability	Not determined.
Vapor pressure	Not determined.
Vapor density	Not determined.
Relative density	Not determined.
Bulk density	Not determined.
Solubility(ies)	Not determined.
Partition coefficient	Not determined.
Auto-ignition temperature	Not determined.
Decomposition Temperature	Not determined.
Viscosity	Kinematic viscosity > 20.5 mm ² /s.
Explosive properties	Not considered to be explosive.
Explosive under the influence of a flame	No
Oxidizing properties	The mixture itself has not been tested but none of the ingredient substances meet the criteria for classification as oxidizing.
Comments	Information given is applicable to the product as supplied.
Other information	None.
Refractive index	Not determined.
Particle size	Not applicable.
Molecular weight	Not applicable.
Volatility	Not determined.
Saturation concentration	Not determined.
Critical temperature	Not determined.
Volatile organic compound	Not determined.

10. Stability and reactivity

Reactivity	There are no known reactivity hazards associated with this product.
Stability	Stable at normal ambient temperatures and when used as recommended.
Conditions to avoid	Keep away from heat, sparks and open flame. Avoid exposure to high temperatures or direct sunlight.
Materials to avoid	Strong alkalis. Strong oxidizing agents. Strong acids.

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Hazardous decomposition products Thermal decomposition or combustion products may include the following substances: Acrid smoke or fumes. Oxides of nitrogen. Oxides of carbon.

11. Toxicological information

Information on toxicological effects

Acute toxicity - oral

Notes (oral LD₅₀) Based on available data the classification criteria are not met.

Acute toxicity - dermal

Notes (dermal LD₅₀) Based on available data the classification criteria are not met.

Acute toxicity - inhalation

Notes (inhalation LC₅₀) Based on available data the classification criteria are not met.

Skin corrosion/irritation

Animal data No information available.

Human skin model test No information available.

Extreme pH Based on available data the classification criteria are not met.

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye irritation.

Respiratory sensitization

Respiratory sensitization Based on available data the classification criteria are not met.

Skin sensitization

Skin sensitization Sensitizing.

Germ cell mutagenicity

Genotoxicity - in vitro Based on available data the classification criteria are not met.

Genotoxicity - in vivo Based on available data the classification criteria are not met.

Carcinogenicity

Carcinogenicity Based on available data the classification criteria are not met. Does not contain any substances known to be carcinogenic.

Reproductive toxicity

Reproductive toxicity - fertility Based on available data the classification criteria are not met. Does not contain any substances known to be toxic to reproduction.

Reproductive toxicity - development Based on available data the classification criteria are not met. Does not contain any substances known to be toxic to reproduction.

Specific target organ toxicity - single exposure

STOT - single exposure Based on available data the classification criteria are not met.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Based on available data the classification criteria are not met.

Aspiration hazard

Aspiration hazard Based on available data the classification criteria are not met.

General information

The product contains organic solvents. Extensive use of the product in areas with inadequate ventilation may result in the accumulation of hazardous vapor concentrations.

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Inhalation	No specific health hazards known. May cause respiratory system irritation.
Ingestion	No specific health hazards known. May cause discomfort if swallowed.
Skin Contact	Causes skin irritation. May cause sensitization or allergic reactions in sensitive individuals.
Eye contact	Causes serious eye irritation.
Acute and chronic health hazards	May cause skin sensitization or allergic reactions in sensitive individuals.
Route of exposure	Inhalation Skin absorption Skin and/or eye contact Ingestion
Target Organs	No specific target organs known.
Medical Symptoms	Symptoms following overexposure may include the following: Allergic rash. May cause discomfort if swallowed.
Medical considerations	May cause allergic contact eczema.

12. Ecological Information

Ecotoxicity	The product contains substances which are toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.
<u>Acute aquatic toxicity</u>	
Acute toxicity - fish	Not determined.
Acute toxicity - aquatic invertebrates	Not determined.
Acute toxicity - aquatic plants	Not determined.
Acute toxicity - microorganisms	Not determined.
Acute toxicity - terrestrial	Not determined.
<u>Chronic aquatic toxicity</u>	
Chronic toxicity - fish early life stage	Not determined.
Short term toxicity - embryo and sac fry stages	Not determined.
Chronic toxicity - aquatic invertebrates	Not determined.
<u>Persistence and degradability</u>	
Persistence and degradability	This product is not expected to be readily biodegradable.
Phototransformation	Not determined.
Stability (hydrolysis)	Not determined.
Biodegradation	Not determined.
Biological oxygen demand	Not determined.
Chemical oxygen demand	Not determined.
<u>Bioaccumulative potential</u>	
Bio-Accumulative Potential	Not determined.

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Partition coefficient Not determined.

Mobility in soil

Adsorption/desorption coefficient Not determined.

Henry's law constant Not determined.

Surface tension Not determined.

Other adverse effects

Other adverse effects None known.

13. Disposal considerations

Waste treatment methods

General information Waste is classified as hazardous waste.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

14. Transport information

UN Number

UN No. (TDG) 3082

UN No. (IMDG) 3082

UN No. (ICAO) 3082

UN No. (DOT) 3082

UN proper shipping name

Proper shipping name (TDG) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS EPOXY RESIN (Number average MW <= 700))

Proper shipping name (IMDG) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS EPOXY RESIN (Number average MW <= 700))

Proper shipping name (ICAO) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS EPOXY RESIN (Number average MW <= 700))

Proper shipping name (DOT) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Transport hazard class(es)

TDG class 9

TDG label(s) 9

IMDG Class 9

ICAO class/division 9

Transport labels



Packing group

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TDG Packing Group	III
IMDG packing group	III
ICAO packing group	III
DOT packing group	III

Environmental hazards

Environmentally Hazardous Substance



Special precautions for user

EmS F-A, S-F

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities

None of the ingredients are listed or exempt.

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

None of the ingredients are listed or exempt.

SARA Extremely Hazardous Substances EPCRA Reportable Quantities

None of the ingredients are listed or exempt.

SARA 313 Emission Reporting

None of the ingredients are listed or exempt.

CAA Accidental Release Prevention

None of the ingredients are listed or exempt.

SARA (311/312) Hazard Categories

None

OSHA Highly Hazardous Chemicals

None of the ingredients are listed or exempt.

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

None of the ingredients are listed or exempt.

California Air Toxics "Hot Spots" (A-I)

None of the ingredients are listed or exempt.

California Air Toxics "Hot Spots" (A-II)

None of the ingredients are listed or exempt.

California Directors List of Hazardous Substances

None of the ingredients are listed or exempt.

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Massachusetts "Right To Know" List

None of the ingredients are listed or exempt.

Rhode Island "Right To Know" List

None of the ingredients are listed or exempt.

Minnesota "Right To Know" List

None of the ingredients are listed or exempt.

New Jersey "Right To Know" List

None of the ingredients are listed or exempt.

Pennsylvania "Right To Know" List

None of the ingredients are listed or exempt.

Inventories

US - TSCA

All the ingredients are listed or exempt.

US - TSCA 12(b) Export Notification

None of the ingredients are listed or exempt.

16. Other information

Issued by	HS&E Manager.
Revision date	9/13/2017
Revision	2
Supersedes date	4/5/2017
SDS No.	20578
Hazard statements in full	H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H411 Toxic to aquatic life with long lasting effects.
NFPA - health hazard	Irritation, minor residual injury. (1)
NFPA - flammability hazard	Burns only if pre-heated. (1)
NFPA - instability hazard	Normally stable. (0)
NFPA - special hazard	N/A
ACA HMIS Health rating.	Slight hazard. (1)
ACA HMIS Flammability rating.	Burns only if pre-heated. (1)
ACA HMIS Physical hazard rating.	Normally stable. (0)
ACA HMIS Personal protection rating.	N/A.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.