SAFETY DATA SHEET

STEPHEN WEBSTER PLASTICS

HIPS Conductive

01. Identification of the substance/preparation and of the company/undertaking

1.1 Product identifier

Product:

Semi-finished, carbon filled products (sheet or film) | Conductive or dissipative | On the basis of Polystyrene

Product name: HIPS Conductive

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

Identified uses:

Semi-finished products for further processing (for example thermoforming), or without further processing

1.3 Details of the supplier of the safety data sheet

Company identification:

Stephen Webster Plastics, Brick Knoll Park, Ashley Road, St Albans, Herts, AL1 5UG

Telephone / Telefax / E-Mail

01727 863138 / sales@stephen-webster.co.uk

1.4 Emergency telephone number

01727 863138

02. Hazards Identification

2.1 Classification of the substance or mixture

Classification (Regulation (EC) No. 1272/2008):

Not classified as dangerous according EC criteria

Classification (Regulation (EC) No. 1999/45/EG:

Not classified as dangerous according EC criteria

2.2 Label elements

Labelling – Regulation (EC) No. 1272/2008: This product is not classified as dangerous according to EC criteria

2.3 Other Hazards

Possible health effects:

Skin contact: Molten material may cause severe burns.

Inhalation: Toxic fumes may be released in fire situations.

Hazardous substances:

Product contains carbon black, which is bound in the polymer. Carbon black, in dust form, is listed as a possible carcinogen to humans (Group 2B, IARC). The dust is bound in the polymer of the semi-finished product.

03. Composition/information on ingredients

3.1 Mixture

Chemical characterization:

Preparation – Mixture of carbon black in a modified polystyrene polymer basis (Styrene-Butadiene-Copolymer)

Hazardous ingredients:

Chemical description	CAS-No.	Concentration
Styrene	100-42-5	< 0.1 %

04. First-aid measures

4.1 Description of first aid measures

4.2 Most important symptoms and effects, both acute and delayed

Skin contact:

4.1 Areas affected by molten material should be quickly placed under cold, running water. Burns caused by molten material require hospital treatment. Do not remove the molten product crusts by using force or any solvents on the affected skin. Removal could result in severe tissue damage. Seek medical attention immediately.

4.2 Burning marks in skin contact with molten plastic.

Eye contact:

4.1 In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. Remove contact lenses after a few minutes and continue rinsing for several additional minutes. If irritation develops, seek immediate medical attention.

Ingestion:

4.1 Seek medical attention.

4.2 May cause gastrointestinal blockage.

Inhalation:

4.1 & 4.2 If coughing, shortness of breath or other symptoms occur, move the person to fresh air and seek for medical advice.

General information:

4.1 & 4.2 Symptomatic treatment.

4.3 Indication of immediate medical attention and special treatment needed

No specific antidote. Symptomatic treatment. In case of burning, treat as any thermal burn, after decontamination.

05. Fire Fighting Measures

5.1 Extinguishing Media

Suitable extinguishing media:

Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam.

5.2 Special hazards arising from the substance or mixture

Hazardous Combustion Products:

During a fire, smoke may contain the original material in addition to combustion products of varying composition, such as carbon dioxide, carbon monoxide, nitrogen and nitrogen oxides, which may be toxic and/or irritating. Combustion products may include trace amounts of: Styrene and Hydrogen cyanide.

Unusual fire and explosion hazards:

Pneumatic conveying and other mechanical handling operations can generate combustible dust. To reduce the potential for dust explosions, do not permit dust to accumulate. Dense smoke is produced when product burns.

5.3 Advice for firefighters

Special protective equipment for firefighters:

Wear positive-pressure self-contained breathing apparatus (SCBA) and protective firefighting clothing (includes firefighting helmet, coat, trousers, boots and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

06. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation. Sources of ignition should be kept well clear. Use appropriate safety equipment.

6.2 Environmental Precautions:

Prevent from entering into soil, ditches, sewers, waterways and/or groundwater.

6.3 Methods and materials for containment and cleaning up

Sweep / shovel up.

6.4 Reference to other sections

N/A

07. Handling and storage

7.1 Precautions for safe handling

No smoking, open flames or sources or ignition in handling and storage area. Good housekeeping and controlling of dusts are necessary for safe handling of product. Avoid breathing process fumes. Use with adequate ventilation. Workers should be protected from the possibility of contact with molten resin. Do not get molten materials in eyes, on skin or clothing. Pneumatic conveying and other mechanical handling operations can generate combustible dust. To reduce the potential for dust explosions, electrically bond and ground equipment and do not permit dust to accumulate. Dust can be ignited by static discharge. Follow proper standard industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

Storage:
Store in accordance with good manufacturing practices. Store dry. Avoid sources of ignition and extreme heat.

7.3 Specific end uses
No further relevant information available.

08. Exposure Controls / Personal Protection

8.1 Control parameters
Exposure Limits
When the product is processed correctly with appropriate ventilation, the exposure levels should be below the limits of the national occupational exposure limit values.
It is the responsibility of the user to determine the adequacy of any protection or safety measures.

8.2 Exposure Controls
Personal protective equipment
Respiratory protection:
Breathing protection if dusts are formed. Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. Use an approved air-purifying respirator when vapours are generated at increased temperatures or when dust or mist is present. Use the following CE approved air-purifying respirator: When dust/mist are present use a/an Particulate filter, type P2. When combinations of vapours, acids, or dusts/mists are present use a/an Organic vapour cartridge with a particulate pre-filter, type AP2.

Hand protection:
Use additional heat protection gloves with insulation for thermal protection (EN 407) when handling hot molten masses. Chemical protective gloves should not be needed.

Eye protection:
Safety glasses with side-shields (frame goggles) (EN166)

Body protection:
Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical protection suit (according to DIN EN 465).

General safety and hygiene measures:
Avoid contact of molten material with skin. Avoid inhalation of dusts/mists/vapours. Eye wash fountains and safety showers must be easily accessible. Handle in accordance with good industrial hygiene and safety practice. Use good personal hygiene. Do not consume or store food in the work area. Wash hands before smoking or eating.

Environmental exposure controls:
Do not let the material contaminate the soil.

09. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties
Appearance / Physical State Semi-finished product (sheet or film)

Colour	Black
Odour	Characteristic odour
Odour Threshold	No test data available
pH	Not applicable
Melting Point	90-110°C
Freezing Point	Not available
Boiling Point (760 mmHg)	Not available
Flammability (solid, gas)	Not available
Flammable Limits In Air Upper & Lower	Not determined
Vapour Pressure	Not applicable
Vapour Density	Not available
Specific Gravity	1.00 – 1.1 g/cm3
Solubility in water (by weight)	Negligible
Partition coefficient, noctanol/ water (log Pow)	No data available for this product.
Auto ignition Temperature	No test data available
Decomposition Temperature	> 300°C
Kinematic Viscosity	Not applicable
Explosive properties	Product does not present an explosion hazard
Oxidizing properties	No test data available

9.2 Other information: None

10. Stability and Reactivity

10.1 & 10.2 Reactivity & Chemical stability

The product is stable in the recommended storage and handling conditions (see section 7). There are no dangerous reactions known under conditions of normal use. The product is chemically stable.

10.3 Possibility of hazardous reactions

No dangerous reactions known.

10.4 Conditions to Avoid

Avoid temperatures above 300°C, due to decomposing. Do not allow product to remain in barrel at elevated temperatures for extended period of time.

10.5 Incompatible Material

Avoid contact with oxidising substances.

10.6 Hazardous decomposition products

Oxides of carbon and hydrocarbon fragments. If the product is greatly overheated polymer fragments can be released, also during normal processing may occur a release of fumes and other decomposition products. Fumes can be irritating.

11. Toxicological Information

11.1 Information on toxicological effects

Acute Toxicity:
LC50(6h) fish: >100mg/l, (Brachydanio rerio); OECD203, water flea: EC50(24h)>5.600 mg/l (Daphnia magna); OECD202 algae: EC50 (72h) >10.000 mg/l (Scenedesmus subspicatus); LD50 (oral, rats): >8.000 mg/kg.

Ingestion:	Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.
Aspiration hazard:	Based on physical properties, not likely to be an aspiration hazard.
Dermal:	No adverse effects anticipated by skin absorption. No irritant effect.
Inhalation:	No adverse effects are anticipated from single exposure to dust. Vapours released during thermal processing may cause respiratory irritation.
Eye damage/eye irritation:	The products dust may cause irritation. Effects may include discomfort and redness.
Skin corrosion/irritation:	No irritant effect. Contact with molten material may cause thermal burns.
Sensitization	
On skin + respiratory:	Specific information is not available.
Repeated Dose Toxicity:	Additives are encapsulated in the product and are not expected to be released under normal processing conditions or foreseeable emergency
Chronic Toxicity and Carcinogenicity:	Carbon black is listed as a possible carcinogen to humans (group 2B; IARC), but not listed as a carcinogen by NTP and OSHA.
Developmental, Reproductive an Genetic Toxicity:	No data available.

12. Ecological Information

12.1 Toxicity

Not expected to be acutely toxic

12.2 Persistence and Degradability

Product is water-insoluble and expected to be inert in the environment. No appreciable biodegradation is expected.

12.3 Bio accumulative potential

No bio concentration and accumulation in organisms are expected.

12.4 Mobility in soil

Material is expected to remain in the soil and in aquatic environment in the sediment.

12.5 Results of PBT and vPvB assessment

No data available.

12.6 Other adverse effects

No data available.

13. Disposal Considerations

13.1 Waste treatment methods
Must be dumped or incinerated in accordance with local regulations. Product can be re-used after suitable reconditioning. Contaminated packaging: Uncontaminated packaging can be recycled.

14. Transport Information

ADR/RID | ADNR / ADN |IMDG | ICAO/IATA:
14.1 UN number
Not applicable.

14.2 UN proper shipping name
Proper Shipping Name: not applicable

14.3 Transport hazard class(es)
Not applicable.

14.4 Packing Group
Not applicable.

14.5 Environmental hazards
Not considered environmentally hazardous based on available data.

14.6 Special precautions for user
Not applicable.

15. Regulatory Information

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

European Inventory of Existing Commercial Chemical Substances (EINECS):
The components of this product are on the EINECS inventory or are exempt from inventory requirements

15.2 Chemical Safety Assessment

Assessment not required.

16. Other Information

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. The data do not describe the product's properties (product specification). Neither should any agreed property nor the suitability of the product of the product for any specific purpose be deduced from the data contained in the safety data sheet. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

Revision
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