SAFETY DATA SHEET

According to 1907/2006/EC, article 31 (REACH) and Regulation (EU) No. 2020/878

Creation date: 20240313
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Version: 1.0

Polyphenylene Sulfide

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

1.1 Product identifier

Product name	Polyphenylene Sulfide
Synonyms, trade names	PPS

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

Relevant identified uses	Used in automobiles, electrical appliances, electronic components, insulating films, PPS fibre textiles, special filtration equipment, anti-corrosion bonding and military applications, suitable for special engineering plastics.
Uses advised against	For medical or food container purpose, please contact the manufacturer in advance to inquire specific uses.

1.3 Details of the supplier of the safety data sheet

1.3.1 Details of the Manufacturer

Name	SHANDONG BEFAR INNOVATE NEW MATERIAL CO., LTD
Address	No. 1, Industrial 7th Road, Economic Development Zone, Yangxin County, Binzhou City, Shandong Province, P.R. China
Postal code	251800
Telephone	+86-18954391906
Fax	/
E-mail	13176299909@163.com

1.4 Emergency telephone

Emergency telephone	+86-0543-2206001

2. HAZARDS IDENTIFICATION

2.1 Classification of substance or mixture according to Regulation (EC) 1272/2008 [CLP]

Not classified

2.2 Label elements according to Regulation (EC) 1272/2008 [CLP]

Pictogram(s)	No pictogram
Signal word	No signal word

| Hazard statements

No information available

| Precautionary statements

Prevention

No information available.

Response

No information available.

Storage

No information available.

Disposal

No information available.

Supplemental Hazard information (EU)

No information available.

2.3 Other hazards

Criteria for the assessment of substances as PBT and vPvB in Annex XIII to Regulation EC No 1907/2006 (REACH): the substance does not meet the criteria for classification as PBT and vPvB substances. The substance is not listed in Annex XIV to Regulation EC No 1907/2006 (REACH) or in the candidate list of SVHC. It has no properties affecting the endocrine system.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance

Name	Product designation	Content (weight percentage, %)	Classification according to Regulation (EC) 1272/2008 [CLP]	Specific Concentration limits, M-Factors, Acute Toxicity Estimates (ATE)
Polyphenylene Sulfide	CAS Nr.: 25212-74-2 EC Nr.: 607-644-7	100	Not classified.	/

3.2 Mixture

Not applicable.

4. FIRST-AID MEASURES

4.1 Description of first aid measures

General advice	No information available.

Eye contact	Immediately flush eyes with plenty of water in case of contact with eyes. Check for and remove any contact lenses and continue to rinse for at least 10 minutes. Get medical attention as soon as possible.
Skin contact	In case of contact with molten polymer, quickly cool the contaminated area with cold water and follow the steps of burn treatment for emergency initial treatment. If the skin is adhered to by hot molten resin, do not remove the polymer or attempt to scrape the solidified material from the skin or dissolve it with solvents or dilutions. Seek medical attention.
Ingestion	Rinse mouth in the event of an accident or if feeling unwell. Drink one or two cups of water and then induce vomiting. Seek medical attention.
Inhalation	If feel unwell after accidental inhalation of the resin powder or gases from hot molten resin, move the victim into fresh air. If symptoms persist, seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

No information available.

4.3 Indication of any immediate medical attention and special treatment needed

This product is inherently inert and non-toxic. However, if it is heated to excessively high temperatures or burned, gases may be released (see section 10). Victims or persons exposed to exhaust gases need to have their arterial blood gases and carboxyhaemoglobin levels checked. If the carboxyhaemoglobin level is normal but the patient has been exposed to a confined space, they may still asphyxiate owing to carbon dioxide. If the clinical picture is consistent (similar to cyanide poisoning), the possibility of hydrogen sulphide poisoning should be considered.
Other irritant gases may also be formed in a small amount. If the patient may have inhaled high concentrations of irritant fumes, they should be monitored for delayed pulmonary oedema. Sulphides and mercaptans cause nausea and headaches due to their foul odour.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable	water jet, water spray, foam, carbon dioxide
Unsuitable	No information available

5.2 Special hazards arising from the substances or mixture

Carbon oxides, sulphur oxides, hydrocarbons, hydrocarbon oxidation products (ketones, acetaldehyde, organic acids, etc.)

5.3 Advice for firefighters

Spray water at a safe distance to cool and protect the surrounding area. Remove containers from fire area if there is no risk. Evacuate persons from fire area to upwind area. Evacuate uninvolved persons to a safe area.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel: Sweeping up particles spilled on the floor or ground to prevent slips and falls Avoid breathing mist, gas or vapours.
6.1.2 For emergency responders: Wear self-contained breathing apparatus, protective suit, and rubber oil-resistant gloves. Do not touch or cross spills. All equipment used when handling the product must be grounded.

Cut off the source of the leak if possible. Eliminate all sources of ignition. Demarcate warning zones based on the area of influence of liquid flow, vapour or dust dispersion.

6.2 Environmental precautions

Do not discharge into drains/surface waters/groundwater.
If the particles are released into the environment, appropriate measures should be taken to prevent aquatic animals and birds from dying from consuming the particles.

6.3 Methods and materials for containment and cleaning up

For large amounts: Constructing an embankment or digging a pit for shelter. Seal drains. Cover with foam to inhibit evaporation. Transfer with explosion-proof pumps to tankers or special collectors for recycling or disposal at a waste disposal site.
For small amounts: Collect spilled liquid in a sealable container if possible. Absorb with sand, activated charcoal or other inert material and transfer to a safe place. Do not discharge into drains.

6.4 Reference to other sections

Section 7 (information on safe handling), Section 8 (information on personal protection equipment), Section 13 (information on disposal)

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Do not eat, drink or smoke when handling chemicals. Avoid breathing mist, gas or vapours. Ensure well ventilation. Take proper measures to control the generation and accumulation of dust during conveying and processing operations. Do not handle hot or molten material without proper protective equipment.

7.2 Conditions for safe storage, including any incompatibilities

Store as a combustible solid. Storage and operation should be in accordance with fire codes and local regulations. Keep away from heat sources, ignition sources, heat sources, vapour lines, and direct sunlight Store in a cool place. Do not store products with oxidant and capable of spontaneous combustion.

7.3 Special end use(s)

No information available.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters
Occupational Exposure limit values

Component	Country	Occupational exposure limits	
		Eight hours	Short term
Polyphenylene Sulfide	-	-	-

8.2 Appropriate engineering controls

Ensure adequate local exhaust ventilation to eliminate gas, powder, and dust when handling substance.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Symbols of personal protective equipment	
Hand protection	Wear proper gloves. Wear heat-resistant protective gloves when handling molten polymers.
Eye protection	Wear protective glasses or chemical safety goggles.
Hygiene measures	Eyewash bottles or stations should meet applicable standards. Remove contaminated clothing and shoes immediately. Handle in accordance with good industrial hygiene and safety practice.
Skin protection	Wear suitable clothing. Long-sleeved clothing should be worn to prevent direct contact with the skin. Wear heat-resistant protective clothing when handling molten polymers.
Respiratory	Wear respiratory protection in case of inadequate ventilation.
Thermal hazard	No information available.

8.4 Restrictions environmental exposure

Do not allow material to contaminate ground water system.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Powder
Color	Opaque
Odour	Slight characteristic odor
Odour threshold	No information available.
pH	No information available.
Melting/freezing point	285-300 ℃ (545-572 ℉)
Initial boiling point and boiling range	No information available.
Flash point	>480 ℃ (896℉)
Evaporation rate	No information available.
Flammability	No information available.
Lower and upper explosion limit/flammability limit	No information available.
Vapour pressure	<0.001mmHg
Vapour density(air=1)	No information available
Density(water=1)	1.3-2.1
Bulk density	No information available.
Solubility(water)	<0.1%
Partition coefficient n-octanol/water	No information available.
Auto-ignition temperature	No information available.
Decomposition temperature	No information available.
Viscosity	No information available.
Explosive properties	No information available.
Oxidising properties	No information available.

Molecular mass	No information available.

9.2 Other information

9.2.1. Information with regard to physical hazard classes

No information available.

9.2.2. Other safety characteristics

No information available.

10. STABILITY AND REACTIVITY

10.1 Reactive

Stable under recommended storage conditions.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Stable under recommended storage conditions.

10.4 Conditions to avoid

Avoid direct sunlight, fire (do not heat over above ℃ (698 ℉)), and heat resource.

10.5 Incompatible materials

Strong oxidant.

10.6 Hazardous decomposition products

Phenyl sulphide, n-methyl-2-pyrrolidone, dichlorobenzene, phenyl mercaptan, hydrogen sulphide, butyrolactone, isopropyl acetone, acetic acid, phenol, formic acid, succinic acid, chlorine, palmitic acid, p-chlorothiophenol, stearic acid, aromatic compounds, chlorinated aromatic compounds, carbonyl sulphur, sulphide compounds, black soot, carbon monoxide, carbon dioxide, nitrogen oxides.

11. TOXICOLOGICAL INFORMATION

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Component	Oral	Dermal	Inhalation
Polyphenylene Sulfide	No information available.	No information available.	No information available.

Carcinogenicity

Component	IARC	NTP
Polyphenylene Sulfide	Not listed	Not listed

Other

Endpoint	Component	Toxicological Information
Skin corrosion/irritation	Polyphenylene Sulfide	No information available.

Serious eye damage/irritation	Polyphenylene Sulfide	No information available.
Skin sensitisation	Polyphenylene Sulfide	No information available.
Respiratory sensitization	Polyphenylene Sulfide	No information available.
Reproductive toxicity	Polyphenylene Sulfide	No information available.
STOT-single exposure	Polyphenylene Sulfide	No information available.
STOT-repeated exposure	Polyphenylene Sulfide	No information available.
Aspiration hazard	Polyphenylene Sulfide	No information available.
Germ cell mutagenicity	Polyphenylene Sulfide	No information available.

11.2 Information on other hazards

No information available.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Component	Fish	Aquatic invertebrates	Aquatic algae and cyanobacteria
Polyphenylene Sulfide	No information available.	No information available.	No information available.

12.2 Persistence and degradability

Component	
Polyphenylene Sulfide	Non biodegradable

12.3 Bioaccumulative potential

Component	
Polyphenylene Sulfide	No information available.

12.4 Mobility in soil

Component	
Polyphenylene Sulfide	No information available.

12.5 Results of PBT and vPvB assessment

Component	
Polyphenylene Sulfide	Not applicable.

12.6 Endocrine disrupting properties

Component	
Polyphenylene Sulfide	The product does not contain substances with endocrine disrupting properties.

12.7 Other adverse effects

No information available.

13. DISPOSAL CONSIDERATIONS

13.1 General information

This product and its containers can't be dumped indiscriminately, especially on the ground, in sewers, or in water sources. It must be disposed in accordance with local regulations.
Contaminated packaging: If packaging is discarded after use (paper packaging, flexible packaging, etc.), check for resin residue. Disposal must be done according to official regulations. Do not use the packaging for other purposes.
Waste disposal operations are entrusted to professional waste handlers licensed by the national or local government. Dispose of waste at authorised waste collection points. Avoid nuisance to the public. Do not dispose of waste containing this product (waste liquids, solid waste, cleaning water, etc.) directly into rivers or bury it in the ground.

13.2 DISPOSAL METHODS

Dispose of in accordance with local and national regulations.

14. TRANSPORT INFORMATION

Transport pictograph	No information available.
Transport	**Classification**
Land transport (ADR/RID)	
UN Number	Not regulated as dangerous goods
UN proper shipping name	No information available.
Transport hazard class(es)	No information available.
Packing group	No information available.
Classification code	No information available.
Marine transport (IMDG)	
UN Number	Not regulated as dangerous goods
UN proper shipping name	No information available.
Transport hazard class(es)	No information available.
Packing group	No information available.
EMS No.	No information available.
Remarks	No information available.
Air transport (ICAO/IATA)	
UN Number	Not regulated as dangerous goods
UN proper shipping name	No information available.
Transport hazard class(es)	No information available.
Packing group	No information available.
Classification code	No information available.
Environmental hazards	No information available.
Special precautions for user	Covering is necessary to block sunlight and rain. Handle with care to avoid packaging breakage. Take care to prevent slipping due to dispersed pellets. Plastic granules are prone to static electricity, if necessary take measures to eliminate static electricity.

15. REGULATORY INFORMATION

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

Component	EINECS	TSCA	DSL/N	IECSC	NZIoC	PICCS	KECL	AIIC

			DSL					
Polyphenylene Sulfide	Not listed	Not listed	Not listed /Not listed	Listed	Not listed	Listed	Listed	Not listed

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

Note

EINECS	European Inventory of Existing Commercial Chemical Substances.
TSCA	United States Toxic Substances Control Act Inventory.
DSL/NDSL	Canadian Domestic/Non-domestic Substances List.
IECSC	Inventory of Existing Chemical Substances in China
NZIoC	New Zealand Inventory of Chemicals.
PICCS	Philippines Inventory of Chemicals and Chemical Substances.
KECL	Korean Existing Chemicals List
AIIC	Australian Inventory of Industrial Chemicals

16. OTHER INFORMATION

Issued By	SHANDONG BEFAR INNOVATE NEW MATERIAL CO., LTD
Revision Date	2024/03/19
Reason for modification	-

REFERENCE

[1] IPCS - The International Chemical Safety Cards (ICSC), website:http://www.ilo.org/dyn/icsc/showcard.home
[2] HSDB - Hazardous Substances Data Bank, website:
[3] IARC - International Agency for Research on Cancer, website: http://www.iarc.fr/
[4] eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: https://www.echemportal.org/echemportal/substance-search
[5] CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple
[6] US National Institutes of Health: Pubchem, website: https://pubchem.ncbi.nlm.nih.gov/
[7] ChemIDplus, website: https://www.nlm.nih.gov/databases/download/chemidplus.html
[8] ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg
[9] Germany GESTIS-database on hazard substance, website: https://gestis-database.dguv.de/
[10] ECHA - European Chemicals Agency, website: https://echa.europa.eu/

ABBREVIATIONS AND ACRONYMS

CAS: Chemical Abstracts Service
ADR: Agreement concerning the International Carriage of Dangerous Goods by Road
RID: Regulation concerning the International Carriage of Dangerous Goods by Rail
IMDG: International Maritime Dangerous Goods
IATA: International Air Transportation Association

TWA: Time Weighted Average
STEL: Short term exposure limit
LC_{50}: Lethal Concentration 50%
LD_{50}: Lethal Dose 50%
EC_{50}: Effective Concentration 50%

STATEMENT

This safety technical specification (SDS) is prepared according to Regulation (EC) No 1907/2006 and Regulation (EU) No 2020/878.The data collected are from authoritative international databases and provided by enterprises themselves. Other information is based on our current state of knowledge. We try to make sure all the information is correct. However, due to the diversity of information sources and the limitations of our knowledge, this document is for user reference only. Users should make independent judgments about the suitability of this information for their specific purposes. We are not liable for any loss, damage or expense arising from or in connection with the handling, storage, use or disposal of the Products.

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