

Centre Testing International Group

SDS

Report No. : A2210087794101001

Company Name

SHENGJUN POLYMER CO. LTD.

shown on Report:

Address: NO. 179 WEST ZHONGSHAN ROAD,

CHANGNING DISTRICT, SHANGHAI, CHINA

Sample Name: Polyimide SJ-5050

Reviewed by:

Gou Cui Li

Approved by:

Chen Fuxin

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Safety Data Sheet

Polyimide SJ-5050

Version : V2.0.0.1

Report No. : A2210087794101001

Creation Date : 2021/03/25

Revision Date : 2021/03/25

*Prepared according to EU regulation No. 2020/878

1 Identification of the substance/mixture and of the company/undertaking

|Product identifier

Product Name	Polyimide SJ-5050
Common Name/Trade Name	PI
CAS No.	Not applicable
EC No.	Not applicable
Molecular Formula	Not applicable
REACH Registration Number	-
UFI	No information available

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

Relevant identified uses	Process semi-finished products and machined parts.
Uses advised against	None.

| Details of the supplier of the Safety Data Sheet

Name of the company	Shengjun Polymer Co. Ltd.
Address of the company	No. 179 West Zhongshan Road, Changning District, Shanghai, China
Post code	-
Telephone number	021-52731817
Fax number	021-52732366
E-mail address	13611841677@qq.com

| Emergency telephone number


Emergency telephone number	021-52731817
Opening hours	24h

2 Hazards identification

|CLP classification according to Regulation (EC) No. 1272/2008

Hazardous To The Aquatic Environment – Long-Term (Chronic) Hazard	Category 2
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| GHS Label elements

Hazard pictograms	
Signal word	Not applicable

| Hazard statements

H411	Toxic to aquatic life with long lasting effects
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| Precautionary statements

☐ Prevention

P273	Avoid release to the environment.
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☐ Response

P391	Collect spillage.
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☐ Storage

Storage	Not applicable
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☐ Disposal

P501	Dispose of contents/container in accordance with local/regional/national/ international regulations.
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| Other hazards

☐ Results of PBT and vPvB assessment

Component	Results of PBT and vPvB assessment [according to (EC) No 1907/2006]
Graphite	Not applicable

☐ Results of endocrine disrupting properties assessment

Results of endocrine disrupting properties assessment	Insufficient information, temporarily unable to evaluate
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☐ Other

	Not applicable.
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3 Composition/information on ingredients

| Substance/mixture

	Mixture
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Component	Weight % content (or range)	Classification according to Regulation(EC) No. 1272/2008 [CLP]	Specific Conc. Limits, M-factors
2,5-Furandione, polymer with 2-methyl-1-propene, ethyl ester, reaction product with N,N-dimethyl-1,3-propaned	50	Hazardous To The Aquatic Environment – Long-Term (Chronic) Hazard , Category 2 , H411	-

iamine and polyethylene-polypropylene glycol 2-aminopropyl Me ether CAS : 497926-97-3 EC : 691-837-6 Index No. : -			
Graphite CAS : 7782-42-5 EC : 231-955-3 Index No. : -	50	Not Classified	-

4 First-aid measures

Description of first aid measures

General advice	Immediate medical attention is required. Show this safety data sheet (SDS) to the doctor in attendance.
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician if feel uncomfortable.
Skin contact	Take off contaminated clothing and shoes immediately. Wash off with plenty of soap and water for at least 15 minutes and consult a physician if feel uncomfortable.
Ingestion	Never give anything by mouth to an unconscious person. Call a physician immediately.
Inhalation	Move victim into fresh air. If breathing is difficult, give oxygen. Do not use mouth to mouth resuscitation if victim ingested or inhaled the substance. If not breathing, give artificial respiration and consult a physician immediately.
Protecting of first-aiders	Ensure that medical personnel are aware of the substance involved. Take precautions to protect themselves and prevent spread of contamination.

Most important symptoms/effects, acute and delayed

1	Cumulative effects may result following exposure.
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Indication of any immediate medical attention and special treatment needed

1	Treat symptomatically.
2	Symptoms may be delayed.

5 Fire-fighting measures

Extinguishing media

Suitable extinguishing media	Use extinguishing media suitable for surrounding area.
Unsuitable extinguishing media	There is no restriction on the type of extinguisher which may be used.

Specific hazards arising from the substance or mixture

1	Development of hazardous combustion gases or vapor possible in the event of fire.
2	Not combustible, not considered a significant fire risk, however containers may burn.

Advice for firefighters

1	As in any fire, wear self-contained breathing apparatus (MSHA/NIOSH approved or equivalent) and full protective gear.
2	Fight fire from a safe distance, with adequate cover.

- | | |
|---|-----------------------------------------------------------------------------------------------|
| 3 | Prevent fire extinguishing water from contaminating surface water or the ground water system. |
|---|-----------------------------------------------------------------------------------------------|

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

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|---|---------------------------------------------------------------------------------------------------------------------|
| 1 | Ensure adequate ventilation. Remove all sources of ignition. Take precautionary measures against static discharges. |
| 2 | Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. |
| 3 | Use personal protective equipment. Avoid breathing mist or dust. |

Environmental precautions

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|---|-------------------------------------------------------|
| 1 | Prevent further leakage or spillage if safe to do so. |
| 2 | Discharge into the environment must be avoided. |

Methods and materials for containment and cleaning up

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|---|----------------------------------------------------------------------------------------------------------------------------|
| 1 | Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations. |
| 2 | Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. |
| 3 | Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal. |

7 Handling and storage

Precautions for safe handling

Protective measures

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|---|---------------------------------------------------|
| 1 | Handling is performed in a well ventilated place. |
| 2 | Wear suitable protective equipment. |
| 3 | Avoid contact with skin and eyes. |

Measures to prevent fire

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| 1 | Keep away from heat/sparks/open flames/ hot surfaces. |
|---|-------------------------------------------------------|

Measures to prevent aerosol and dust generation

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|---|-------------------------------------------------------------------------|
| 1 | Avoid formation of dust and aerosols. |
| 2 | Provide appropriate exhaust ventilation at places where dust is formed. |

Advice on general occupational hygiene

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|---|----------------------------------------------------|
| 1 | Wash hands and face after using of the substances. |
| 2 | Replace the contaminated clothing immediately. |

Conditions for safe storage, including any incompatibilities

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|---|------------------------------------------------------------------|
| 1 | Keep containers tightly closed. |
| 2 | Keep containers in a dry, cool and well-ventilated place. |
| 3 | Keep away from heat/sparks/open flames/hot surfaces. |
| 4 | Store away from incompatible materials and foodstuff containers. |

Specific end use(s)

- | | |
|---|--------------------------------------------------------------------------------------|
| 1 | In addition to use mentioned in the first parts, unforeseen other specific end uses. |
|---|--------------------------------------------------------------------------------------|

8 Exposure controls/personal protection

Control parameters

Component	Country/Region	Limit value - Eight hours		Limit value - Short term	
		ppm	mg/m ³	ppm	mg/m ³
Graphite	USA - OSHA	-	15	-	-
	South Korea	-	2	-	-
	Ireland	-	10	-	-
	Germany (DFG)	-	4	-	-
	Denmark	-	2.5	-	5
	Australia	-	3 (4)	-	-

Biological limit values

Biological limit values	No relevant regulations
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Monitoring methods

1	EN 14042 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.
2	GBZ/T 300.1~GBZ/T 300.160-2017; GBZ/T 300.161~GBZ/T 300.164-2018 Determination of toxic substances in workplace air (Series standard).

Derived No effect level (DNEL)

Component	Route of exposure	DNEL for Workers			
		Acute effects(local)	Acute effects(systemic)	Chronic effects(local)	Chronic effects(systemic)
2,5-Furandione, polymer with 2-methyl-1-propene, ethyl ester, reaction product with N,N-dimethyl-1,3-propanediamine and polyethylene-polypropylene glycol 2-aminopropyl Me ether	Inhalation	No data available	No data available	No data available	No data available
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available
Graphite	Inhalation	No data available	No data available	1.2 mg/m ³	10 mg/m ³
	Oral	No data available	No data available	No data available	No data available
	Dermal	No data available	No data available	No data available	No data available

Predicted No Effect Concentration (PNEC)


Predicted No Effect Concentration (PNEC)	No information available
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Engineering controls

1	Ensure adequate ventilation, especially in confined areas.
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2	Ensure that eyewash stations and safety showers are close to the workstation location.
3	Set up emergency exit and necessary risk-elimination area.
4	Handle in accordance with good industrial hygiene and safety practice.

Personal protection equipment

General requirement	
Eye protection	Tightly fitting safety goggles (approved by EN 166(EU) or NIOSH (US)).
Hand protection	Wear protective gloves (such as butyl rubber) , passing the tests according to EN 374(EU), US F739 or AS/NZS 2161.1 standard.
Respiratory protection	In general situation, respiratory protection is not needed. If exposure limits are exceeded or if irritation or other symptoms are experienced, use a full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges.
Skin and body protection	Wear chemical protective clothing.

9 Physical and chemical properties and safety characteristics

Physical and chemical properties

Physical state	Solid (powder)
Colour	Black
Odor	Odorless
Odor threshold	No information available
pH	No information available
Melting point/freezing point(°C)	> 360
Initial boiling point and boiling range(°C)	No information available
Flash point(Closed cup,°C)	Not applicable
Evaporation rate	Not applicable
Flammability	Not combustible
Upper/lower explosive limits[% (v/v)]	Upper limit : Not explosive ; Lower limit : Not explosive
Vapor pressure	Not applicable
Vapor density(Air = 1)	Not applicable
Relative density(Water=1)	1.75
Solubility	Insoluble in water
n-octanol/water partition coefficient	No information available
Auto-ignition temperature(°C)	No information available
Decomposition temperature(°C)	No information available
Viscosity	Not applicable
Explosive properties	Not explosive

Oxidizing properties	Not oxidizing
Particle characteristics	Powder

10 Stability and reactivity

| Stability and reactivity

Reactivity	Contact with incompatible substances can cause decomposition or other chemical reactions.
Chemical stability	Stable under proper operation and storage conditions.
Possibility of hazardous reactions	Mixtures with metallic acetylene, when heated, cause a fire or incandescence.
Conditions to avoid	Incompatible materials, heat, flame and spark.
Incompatible materials	Metal acetylide, halogen, interhalogen, halogen oxides, nitric acid, nitrous oxide, nitrates, nitrites, halogen oxyacid salts, chromates, permanganates, inorganic peroxides, metal oxides and peroxyformic acid.
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11 Toxicological information

| Acute toxicity

Acute toxicity	No information available
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| Carcinogenicity

Component	List of carcinogens by the IARC Monographs	Report on Carcinogens by NTP
2,5-Furandione, polymer with 2-methyl-1-propene, ethyl ester, reaction product with N,N-dimethyl-1,3-propanedi amine and polyethylene-polypropylene glycol 2-aminopropyl Me ether	Not Listed	Not Listed
Graphite	Not Listed	Not Listed

| Endocrine disrupting properties

Endocrine disrupting properties	No information available
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| Others

Polyimide SJ-5050	
Skin corrosion/irritation	Based on available data, the classification criteria are not met
Serious eye damage/irritation	Based on available data, the classification criteria are not met
Skin sensitization	Based on available data, the classification criteria are not met
Respiratory sensitization	Based on available data, the classification criteria are not met

Reproductive toxicity	Based on available data, the classification criteria are not met
STOT-single exposure	Based on available data, the classification criteria are not met
STOT-repeated exposure	Based on available data, the classification criteria are not met
Aspiration hazard	Based on available data, the classification criteria are not met
Germ cell mutagenicity	Based on available data, the classification criteria are not met
Reproductive toxicity(additional)	Based on available data, the classification criteria are not met

12 Ecological information

|Acute aquatic toxicity

Acute aquatic toxicity	No information available
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|Chronic aquatic toxicity

Chronic aquatic toxicity	No information available
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|Persistence and degradability

Component	Persistence (water/soil)	Persistence (air)
Graphite	Low	Low

|Bioaccumulative potential

Component	Bioaccumulative potential	Comments
Graphite	Low	Log Kow=0.5294

|Mobility in soil

Component	Mobility in soil	Soil Organic Carbon-Water Partitioning Coefficient (Koc)
Graphite	Low	23.74

|Results of PBT and vPvB assessment

Component	Results of PBT and vPvB assessment [according to (EC) No 1907/2006]
Graphite	Not applicable

|Endocrine disrupting properties

Endocrine disrupting properties	No information available
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13 Disposal considerations

|Disposal considerations

Waste chemicals	Before disposal should refer to the relevant national and local laws and regulation. Recommend the use of incineration disposal.
Contaminated packaging	Containers may still present chemical hazard when empty. Keep away from hot and ignition source of fire. Return to supplier for recycling if possible.

Disposal recommendations

Refer to section waste chemicals and contaminated packaging.

14 Transport information

Label and Mark

Transporting Label



IMDG-CODE

UN number	3077
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE,SOLID, N.O.S. (2,5-Furandione, polymer with 2-methyl-1-propene, ethyl ester, reaction product with N,N-dimethyl-1,3-propanediamine and polyethylene-polypropylene glycol 2-aminopropyl Me ether)
Transport hazard class	9
Transport subsidiary hazard class	None
Packing group	III
Special provisions	274 335 966 967 969
Limited quantities	5kg
Excepted quantities	E1
Marine pollutant (Yes or no)	Yes
EmS No.	F-A,S-F

IATA-DGR

UN number	3077
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE,SOLID, N.O.S. (2,5-Furandione, polymer with 2-methyl-1-propene, ethyl ester, reaction product with N,N-dimethyl-1,3-propanediamine and polyethylene-polypropylene glycol 2-aminopropyl Me ether)
Transport hazard class	9
Transport subsidiary hazard class	None
Packing group	III
Excepted quantities	E1
Passenger and Cargo Aircraft Limited Quantity Packing Instructions	Y956
Passenger and Cargo Aircraft Limited Quantity Maximum net Quantity per Package	30 kg G
Passenger and Cargo Aircraft Packing Instructions	956
Passenger and Cargo Aircraft	400 kg

Maximum net Quantity per Package	
Cargo Aircraft Packing Instructions	956
Cargo Aircraft Maximum net Quantity per Package	400 kg
Special provisions	A97、A158、A179、A197
ERG code	9L

| UN-ADR

UN number	3077
UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE,SOLID, N.O.S. (2,5-Furandione, polymer with 2-methyl-1-propene, ethyl ester, reaction product with N,N-dimethyl-1,3-propanediamine and polyethylene-polypropylene glycol 2-aminopropyl Me ether)
Transport hazard class	9
Transport subsidiary hazard class	None
Packing group	III
Special provisions	274 335 375 601
Limited quantities	5 kg
Excepted quantities	E1
Packing instructions	P002 IBC08 LP02 R001
Special packing provisions	PP12 B3
Mixed packing provisions	MP10
Portable tanks and bulk containers instructions	T1 BK1 BK2
Portable tanks and bulk containers special provisions	TP33
ADR tank code	SGAV LGBV
ADR tank special provisions	-
Vehicle for tank carriage	AT
Transport category(Tunnel restriction code)	3 (E)
Special provisions for carriage(Packages)	V13
Special provisions for carriage (Bulk)	VC1 VC2
Special provisions for carriage (Loading, unloading and handling)	CV13
Special provisions for carriage (Operation)	-
Hazard identification No.	90
Notes	-

15 Regulatory information

| International chemical inventory

Component	EINECS	TSCA	DSL	IECSC	NZIoC	PICCS	KECI	AIIC	ENCS
2,5-Furandione, polymer with 2-methyl-1-propene, ethyl ester, reaction product with N,N-dimethyl-1,3-propanedi amine and polyethylene-polypropylene glycol 2-aminopropyl Me ether	×	×	√	×	√	×	×	√	×
Graphite	√	√	√	√	√	√	√	√	×

[EINECS]	European Inventory of Existing Commercial Chemical Substances
[TSCA]	United States Toxic Substances Control Act Inventory
[DSL]	Canadian Domestic Substances List
[IECSC]	China Inventory of Existing Chemical Substances
[NZIoC]	New Zealand Inventory of Chemicals
[PICCS]	Philippines Inventory of Chemicals and Chemical Substances
[KECI]	Korea Existing Chemicals Inventory
[AIIC]	Australia. Inventory of Industrial Chemicals (AIIC)
[ENCS]	Japan Inventory of Existing & New Chemical Substances

| European chemical inventory

Component	A	B	C	D	E	F	G
2,5-Furandione, polymer with 2-methyl-1-propene, ethyl ester, reaction product with N,N-dimethyl-1,3-propane diamine and polyethylene-polypropylene glycol 2-aminopropyl Me ether	×	×	×	×	×	×	×
Graphite	×	×	×	√	√	√	×

[A]	Candidate list of Substances of Very High Concern for authorization under EU REACH regulation
[B]	Substances requiring authorisation under EU REACH regulation
[C]	Substances restricted under EU REACH
[D]	Pre-registered substances under EU REACH
[E]	Registered substances under EU REACH
[F]	Substance Evaluation – CoRAP under EU REACH
[G]	List of priority substances under EU water policy (Directive 2455/2001/EC)

Note:

- “√” Indicates that the substance included in the regulations.
 ”
 “×” No data or not included in the regulations.
 ”

16 Other information

Information on revision

Creation Date	2021/03/25
Revision Date	2021/03/25
Reason for revision	-

Reference

- [1] IPCS: The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>.
- [2] IARC, website: <http://www.iarc.fr/>.
- [3] OECD: The Global Portal to Information on Chemical Substances, website: <https://www.echemportal.org/echemportal/substancesearch/index.action>.
- [4] CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>.
- [5] NLM: ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>.
- [6] EPA: Integrated Risk Information System, website: <http://cfpub.epa.gov/iris/>.
- [7] U.S. Department of Transportation: ERG, website: <http://www.phmsa.dot.gov/hazmat/library/erg>.
- [8] Germany GESTIS-database on hazard substance, website: <http://gestis-en.itrust.de/>.

Abbreviations and acronyms

CAS	Chemical Abstracts Service	UN	The United Nations
PC-STEL	Short term exposure limit	OECD	Organization for Economic Co-operation and Development
PC-TWA	Time Weighted Average	IMDG	International Maritime Dangerous Goods
MAC	Maximum Allowable Concentration	IARC	International Agency for Research on Cancer
DNEL	Derived No Effect Level	ICAO	International Civil Aviation Organization
PNEC	Predicted No Effect Concentration	IATA	International Air Transportation Association
NOEC	No Observed Effect Concentration	ACGIH	American Conference of Governmental Industrial Hygienists
LC ₅₀	Lethal Concentration 50%	NFPA	National Fire Protection Association
LD ₅₀	Lethal Dose 50%	NTP	National Toxicology Program
EC ₅₀	Effective Concentration 50%	PBT	Persistent, Bioaccumulative, Toxic
EC _X	Effective Concentration X%	vPvB	very Persistent, very Bioaccumulative
P _{OW}	Partition coefficient Octanol: Water	CMR	Carcinogens, mutagens or substances toxic to reproduction
BCF	Bioconcentration factor	RPE	Respiratory Protective Equipment
ED	Endocrine disruptor		

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This Safety Data Sheet (SDS) was prepared according to REACH Regulation. The data included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and the limitations of our knowledge, this document is only for user's reference. Users should make their independent judgment of suitability of this information for their particular purposes. We do not assume responsibility for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.

| Further information:

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