

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

Product form : Substance  
Substance name : Sulfonated poly(ether ether ketone) (SPEEK)  
Type of product : Polymers  
Other means of identification : Solvent: Dimethyl acetamide (DMAc)

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

#### Relevant identified uses

Main use category : Industrial use, Professional use  
Use of the substance/mixture : Laboratory chemicals

### 1.3. Details of the supplier of the safety data sheet

SUNUM  
Orta Mah. Üniversite Cad. No: 27/1  
34956 Tuzla  
İstanbul  
TÜRKİYE  
T +90 (216) 483 9000, F +90 (216) 483 9885  
[sunum@sabanciuniv.edu](mailto:sunum@sabanciuniv.edu), [sunum.sabanciuniv.edu](http://sunum.sabanciuniv.edu)

### 1.4. Emergency telephone number

Emergency number : +90 (216) 483 9000

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

#### Adverse physicochemical, human health and environmental effects

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

### 2.2. Label elements

#### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

No labelling applicable

### 2.3. Other hazards

Other hazards which do not result in classification : Since SPEEK CAS No. is unavailable, the classification is based on the closest chemical derivative PEEK (Poly(oxy-1,4-phenyleneoxy-1,4-phenylenecarbonyl-1,4-phenylene) (CAS 29658-26-2).  
Avoid dust formation. Dust of the product, if present, may cause respiratory irritation after excessive inhalation exposure.

# Sulfonated poly(ether ether ketone) (SPEEK)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Sulfonated poly(ether ether ketone) (SPEEK)	-	100	Not classified

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

First-aid measures general	: In all cases of doubt, or when symptoms persist, seek medical attention.
First-aid measures after inhalation	: Move the affected person away from the contaminated area and into the fresh air. Give oxygen or artificial respiration if necessary. Place the affected person in the recovery position. If experiencing respiratory symptoms: Call a poison center or a doctor.
First-aid measures after skin contact	: After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	: Direct contact with the eyes is likely to be irritating. Rinse immediately and thoroughly, pulling the eyelids well away from the eye (15 minutes minimum). Remove contact lenses, if present and easy to do. Continue rinsing. Consult an ophthalmologist if irritation persists.
First-aid measures after ingestion	: Never give anything by mouth to an unconscious person. If swallowed, rinse mouth with water (only if the person is conscious). Do not induce vomiting. Call a physician immediately.

#### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation	: Dust of the product, if present, may cause respiratory irritation after excessive inhalation exposure.
Symptoms/effects after skin contact	: Not expected to present a significant skin hazard under anticipated conditions of normal use.
Symptoms/effects after eye contact	: Dust from this product may cause minor eye irritation.
Symptoms/effects after ingestion	: Gastrointestinal complaints.

#### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media	: In case of fire: dry chemical powder, alcohol-resistant foam, carbon dioxide (CO <sub>2</sub> ), water spray, sand, earth.
Unsuitable extinguishing media	: Do not use a solid water stream as it may scatter and spread fire.

#### 5.2. Special hazards arising from the substance or mixture

Fire hazard	: The product is not flammable.
Explosion hazard	: Not explosive.
Reactivity in case of fire	: Keep the substance free from contamination. Combustion produces toxic gases.
Hazardous decomposition products in case of fire	: On heating or during combustion : Toxic fumes may be released.

#### 5.3. Advice for firefighters

Precautionary measures fire	: Keep in a cool place away from combustible materials. Eliminate all ignition sources if safe to do so. Keep container closed when not in use.
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# Sulfonated poly(ether ether ketone) (SPEEK)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Firefighting instructions	: Exercise caution when fighting any chemical fire. Use water spray or fog for cooling exposed containers. Do not enter fire area without proper protective equipment, including respiratory protection. Fight fire from safe distance and protected location. Keep upwind. Contain the extinguishing fluids by bunding.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Use self-contained breathing apparatus and chemically protective clothing.
Other information	: Do not allow run-off from fire fighting to enter drains or water courses. Notify authorities if product enters sewers or public waters. High temperature decomposition products are harmful by inhalation. Inhalation of vapour can cause breathing difficulties.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Do not handle until all safety precautions have been read and understood. Avoid all contact with skin, eyes, or clothing. Keep public away from danger area. Use care in walking on spilled material. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous.
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#### For non-emergency personnel

Protective equipment	: Wear recommended personal protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	: Do not attempt to take action without suitable protective equipment. Mark out the contaminated area with signs and prevent access to unauthorized personnel. Only qualified personnel equipped with suitable protective equipment may intervene. No flames, no sparks. Eliminate all sources of ignition. Do not touch or walk on the spilled product.
Measures in case of dust release	: In case of excessive dust production. full face mask. Protective goggles. Dustproof clothing.

#### For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	: Equip cleanup crew with proper protection. Evacuate unnecessary personnel. Stop leak if safe to do so. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous.

### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

For containment	: Do not touch or walk on the spilled product.
Methods for cleaning up	: Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal. Notify authorities if product enters sewers or public waters.
Other information	: Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

Concerning personal protective equipment to use, see section 8. Concerning disposal elimination after cleaning, see section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Additional hazards when processed	: Avoid all unnecessary exposure. Ensure good ventilation of the work station.
Precautions for safe handling	: Wear personal protective equipment. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Handle and open container with care. Handle in accordance with good industrial hygiene and safety procedures.
Hygiene measures	: Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: Comply with applicable regulations.
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# Sulfonated poly(ether ether ketone) (SPEEK)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Storage conditions	: Keep only in the original container in a cool well ventilated place.
Incompatible products	: Strong acids. Strong bases. Strong oxidizing agents.
Incompatible materials	: Extremely high or low temperatures.
Heat and ignition sources	: Keep away from heat and direct sunlight. Keep away from sources of ignition.
Information on mixed storage	: Keep away from food, drink and animal feeding stuffs.
Storage area	: Store, if possible, in a cool, well ventilated place away from incompatible materials.
Special rules on packaging	: Handle uncleaned empty containers as full ones.
Packaging materials	: Keep only in the original container in a cool,well-ventilated place away from combustible materials.

### 7.3. Specific end use(s)

See Section 1.2.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Exposure controls

#### Appropriate engineering controls

##### Appropriate engineering controls:

Comply with the safety instructions. Handle in accordance with good industrial hygiene and safety procedures. Ensure good ventilation of the work station. In the event that dust and/or fine particles are generated with this product, it is prudent to minimize prolonged inhalation exposure to these forms not to exceed the occupational exposure limit. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

#### Personal protection equipment

##### Personal protective equipment:

Wear recommended personal protective equipment.

##### Personal protective equipment symbol(s):



#### Eye and face protection

##### Eye protection:

Avoid contact with eyes. Chemical goggles or safety glasses

Eye protection			
Type	Field of application	Characteristics	Standard
Safety glasses, Safety goggles	Dust, Fine dust	Dust protection, With side shields, tightly fitting safety goggles	EN 166

#### Skin protection

##### Skin and body protection:

According to the conditions of use, protective gloves, apron, boots, head and face protection must be worn

Skin and body protection	
Type	Standard
Protective clothing	EN ISO 13982, EN ISO 6529, EN ISO 6530, EN 464
Footwear (shoes, boots)	EN ISO 20345, EN 13832

# Sulfonated poly(ether ether ketone) (SPEEK)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### Hand protection:

Protective gloves. Choosing the proper glove is a decision that depends not only on the type of material, but also on other quality features, which differ for each manufacturer. The breakthrough time of the selected gloves must be greater than the intended use period. Gloves must be replaced after each use and whenever signs of wear or perforation appear

Hand protection					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Protective gloves	Neoprene or nitrile rubber gloves, Polyvinylchloride (PVC), Latex	6 (> 480 minutes)	> 0,1	3 (> 0.65)	EN 420, EN ISO 374-1

### Respiratory protection

#### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Respiratory protection			
Device	Filter type	Condition	Standard
Dust mask	Type P1	Dust protection, If conc. in air > exposure limit	EN 143, EN 14387

### Environmental exposure controls

#### Environmental exposure controls:

Avoid release to the environment.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Solid
Colour	: Whitish.
Appearance	: Amorphous solid. Crystalline solid.
Odour	: According to product specification.
Odour threshold	: Not available
Melting point	: Not available
Freezing point	: Not applicable
Boiling point	: Not available
Flammability	: Non flammable.
Lower explosion limit	: Not applicable
Upper explosion limit	: Not applicable
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: Not available
pH	: Not available
pH solution	: Not available
Viscosity, kinematic	: Not applicable
Solubility	: Not available
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Density	: Not available
Relative density	: Not available
Relative vapour density at 20°C	: Not applicable
Particle size	: Not available

### 9.2. Other information

No additional information available

# Sulfonated poly(ether ether ketone) (SPEEK)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

#### 10.2. Chemical stability

Stable under normal conditions.

#### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

#### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

#### 10.5. Incompatible materials

Strong acids. Strong bases. Strong oxidizing agents.

#### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

### SECTION 11: Toxicological information

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

Acute toxicity (oral)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal)	: Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	: Not classified (Based on available data, the classification criteria are not met)
Skin corrosion/irritation	: Not classified (Based on available data, the classification criteria are not met)
Serious eye damage/irritation	: Not classified (Based on available data, the classification criteria are not met)
Respiratory or skin sensitisation	: Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	: Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	: Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure	: Not classified (Based on available data, the classification criteria are not met)
STOT-repeated exposure	: Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)

#### Sulfonated poly(ether ether ketone) (SPEEK)

Viscosity, kinematic	Not applicable
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#### 11.2. Information on other hazards

No additional information available

### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified (Based on available data, the classification criteria are not met)
Hazardous to the aquatic environment, long-term (chronic)	: Not classified (Based on available data, the classification criteria are not met)

# Sulfonated poly(ether ether ketone) (SPEEK)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 12.2. Persistence and degradability

#### Sulfonated poly(ether ether ketone) (SPEEK)

Persistence and degradability	Not rapidly degradable
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### 12.3. Bioaccumulative potential

No additional information available

### 12.4. Mobility in soil

No additional information available

### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Endocrine disrupting properties

No additional information available

### 12.7. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Regional waste regulation	: Disposal must be done according to official regulations. Waste Management Regulation published in the Official Journal numbered 29314 on April 2, 2015.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations	: Completely empty the packaging prior to decontamination. Recycle the material as far as possible. Comply with local regulations for disposal.
Ecological waste information	: Avoid release to the environment.

## SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number or ID number</b>				
Not regulated for transport				
<b>14.2. UN proper shipping name</b>				
Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.
<b>14.3. Transport hazard class(es)</b>				
Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.
<b>14.4. Packing group</b>				
Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.
<b>14.5. Environmental hazards</b>				
Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.
No supplementary information available				

### 14.6. Special precautions for user

#### Overland transport

Not regulated.

# Sulfonated poly(ether ether ketone) (SPEEK)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### Transport by sea

Not regulated.

### Air transport

Not regulated.

### Inland waterway transport

Not regulated.

### Rail transport

Not regulated.

## 14.7. Maritime transport in bulk according to IMO instruments

Not applicable

## SECTION 15: Regulatory information

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

#### EU-Regulations

##### REACH Annex XVII (Restriction List)

Not listed on REACH Annex XVII

##### REACH Annex XIV (Authorisation List)

Not listed on REACH Annex XIV (Authorisation List)

##### REACH Candidate List (SVHC)

Not listed on the REACH Candidate List

##### PIC Regulation (Prior Informed Consent)

Not listed on the PIC list (Regulation EU 649/2012)

##### POP Regulation (Persistent Organic Pollutants)

Not listed on the POP list (Regulation EU 2019/1021)

##### Ozone Regulation (2024/590)

Not listed on the Ozone Depletion list (Regulation EU 2024/590)

##### Council Regulation (EC) for the control of dual-use items

Not listed on the COUNCIL REGULATION (EC) of dual-use items.

##### Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

##### Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

### Abbreviations and acronyms:

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate



# Sulfonated poly(ether ether ketone) (SPEEK)

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Abbreviations and acronyms:	
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disruptor

Data sources : ECHA (European Chemicals Agency). Supplier's safety documents.

Safety Data Sheet (SDS), EU

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