

# FleX Line

**Compound Termoplastici**  
**Thermoplastic Compounds**



**CENTERPLASTICS**  
COMPOUND & ADDITIVES

## MATERIAL SAFETY DATA SHEET

### SECTION 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** TPFLEX SEBS

**CHEMICAL NAME:** Thermoplastic polyurethane

**CHEMICAL FAMILY:** Polyurethane-based polymer

**PRODUCT DESCRIPTION:** Opaque white solid pellets

**CONTACT ADDRESS:**

Centerplastics Enterprise co. Ltd, Eastern Industrial road, zip: 516127,  
Shiwan Town, Boluo Area, Huizhou, Guandong, P.R.China

**EMERGENCY TELEPHONE NUMBERS:** +86 159 896 61 157

**NON EMERGENCY TELEPHONE NUMBERS :**

Office working hours: 9.00 -12.30 - 14.00-18.00

Tel.: +86 752 611 6072/6073 - Fax: +86 752 611 6070

### SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENTS	CAS#
Thermoplastic polyurethane	75701-44-9
Additives	

### SECTION 3 HAZARDS IDENTIFICATION

**POTENTIAL HEALTH EFFECTS**

**EYE CONTACT:** Particulates may scratch eye surfaces/cause mechanical irritation.

**SKIN CONTACT:** Exposure to hot material may cause thermal burns.

**INHALATION:** Vapors and/or aerosols which may be formed at elevated temperatures may be irritating to eyes and respiratory tract.

**INGESTION:** Minimal toxicity.

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### SECTION 4 FIRST AID MEASURES

**EYE CONTACT:** This product is an inert solid. If in eye, remove as one would any foreign object.

**CONTACT WITH THE HOT MELT:** Cool immediately with plenty of water. Do not remove product crusts which may have formed neither forcibly nor by applying any solvents to the skin involved. To obtain treatment for possible burns, and appropriate skin care, seek medical advice immediately.

The following information refers to the handling of the product at room temperature. In case of contact wash affected areas thoroughly with soap and plenty of water.

**INGESTION:** First aid is normally not required.

### SECTION 5 FIRE-FIGHTING MEASURES

**Suitable extinguishing media:** Water, Foam, Dry chemical

Burning releases carbon monoxide, carbon dioxide, oxides of nitrogen and traces of hydrogen cyanide. In the event of fire and/or explosion do not breathe fumes.

Firemen must wear self-contained breathing apparatus.

Do not allow contaminated extinguishing water to enter the soil, groundwater or surface waters.

### SECTION 6 ACCIDENTAL RELEASE MEASURES

**Personal precautions:** Put on protective equipment (see chapter 8). Granules - slip hazard! Ensure adequate ventilation/exhaust extraction. Keep unauthorized persons away.

**Environmental precautions:** Do not flush into surface water or sanitary sewer system.

**Methods for cleaning up:** Use mechanical handling equipment. Avoid dust formation. Sweep and shovel into suitable containers for disposal.

**Additional advice:** For further disposal measures see chapter 13.

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### SECTION 7 STORAGE AND HANDLING

#### Storage

Keep container tightly closed and dry.  
Storage temperature: < 40 °C

#### Handling

Adequate ventilation and if necessary, effective exhaust must be provided at the workplace when opening fresh drums, drying granules and processing the material. Under recommended processing conditions small amounts of emissions may occur.

Provided good ventilation and/or local exhaust systems are used, the Workplace Exposure Limit(s) stated in Chapter 8 should not be exceeded. Dust must be removed by effective exhaust ventilation.

### SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

The regulations for the substances listed below must be observed when processing this product, particularly if processing takes place at elevated temperatures. In our experience the provision of effective fresh-air and exhaust ventilation equipment at the points where vapors may be generated will ensure compliance with the tolerance limits quoted below.

SUBSTANCE	CAS#	BASIS	TYPE	VALUE	REMARKS
Tetrahydrofuran	109-99-9	EU ELV	TWA	50 ppm 150 mg/m3	Dermal absorption possible
Tetrahydrofuran	109-99-9	EU ELV	STEL	100 ppm 300 mg/m3	
General limiting value of dust		MY OEL	TWA	10 mg/m3	Inhalable fraction
General limiting value of dust		MY OEL	TWA	3 mg/m3	Alveolar fraction

#### Respiratory protection:

In case of dust formation use respiratory equipment.

#### Hand protection:

Suitable materials for safety gloves.  
Contaminated and/or damaged gloves must be changed.

#### Eye protection:

Wear eye/face protection.

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### **Skin and body protection:**

Wear suitable protective clothing.

### **Further protective measures:**

Do not breathe dust/vapor. Grease skin.

### **Hygiene measures:**

Keep away from foodstuffs, drinks and tobacco. Wash hands and face before breaks and at the end of work. Keep working clothes separately. Change contaminated clothing.

## **SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

**Colour:** different according to colouration

**Form:** granular

**Odour:** almost odourless

**Softening point:** > 120 °C

**Density:** ca. 1,2 g/cm<sup>3</sup>

**Bulk density:** 500 - 700 kg/m<sup>3</sup>

**Vapour pressure:** not applicable

**Water solubility:** practically insoluble

**Ignition temperature:** > 210 °C

**Autoignition temperature:** not applicable

**Explosion limits:** not applicable

## **SECTION 10 STABILITY AND REACTIVITY**

**Hazardous reactions:** No hazardous reactions observed.

**Hazardous decomposition products:** Smouldering or incomplete combustion leads to the formation of toxic gas mixtures consisting mainly of CO,

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CO2 and nitrogen oxides.

**Thermal decomposition:** Decomposition begins at 230 °C.

### SECTION 11 TOXICOLOGICAL INFORMATION

Small quantities of isocyanates may be released when drums are opened for the first time and when the product is exposed to elevated temperatures (e.g. during drying or processing). It is primarily a matter of diisopropylphenyl isocyanate.

Exceeding the recommended processing temperatures leads to a significant increase in the amount of isocyanate vapor generated.

Over-exposure entails a risk of concentration-dependent inhalatory irritation and/or sensitization by isocyanates (delayed appearance of difficult breathing, coughing, asthma is possible).

Hypersensitive persons may suffer from these effects even at low isocyanate concentrations.

The regulations for the substances listed below must be observed when processing this product, particularly if processing takes place at elevated temperatures.

SUBSTANCE	CAS#	R-PHRASE (s)
Isocyanates (all, as -NCO)		<b>R42</b> May cause sensitisation by inhalation.
Diisopropylphenylisocyanate	28178-42-9	<b>R26</b> Very toxic by inhalation. <b>R22</b> Harmful if swallowed. <b>R42</b> May cause sensitisation by inhalation. <b>R34</b> Causes burns.
Tetrahydrofuran	109-99-9	<b>R36/37</b> Irritating to eyes and respiratory system.

**Additional information:**

According to our experience and information the product has no harmful

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effects on health if properly handled.

### SECTION 12 ECOLOGICAL INFORMATION

Do not allow to escape into waterways, wastewater or soil.

#### Further information on ecology:

The product is practically insoluble in water. In view of its consistency and insolubility in water, no ecological problems are to be expected if the product is properly handled.

The product is not readily biodegradable.

### SECTION 13 DISPOSAL CONSIDERATIONS

Dispose in accordance with applicable international, national and local laws, ordinances and statutes.

After containers have been emptied as thoroughly as possible (e.g. by pouring, scraping or draining until "drip-dry"), they can be sent to an appropriate collection point set up within the framework of the existing take-back scheme of the chemical industry.

Containers must be recycled in compliance with national legislation and environmental regulations.

The product is suitable for mechanical recycling. After appropriate treatment it can be remelted and reprocessed into new moulded articles. Mechanical recycling is only possible if the material has been selectively retrieved and carefully segregated according to type.

### SECTION 14 TRANSPORT INFORMATION

ADR/RID - -

ADNR - -

IATA - -

IMDG - -

**Other information** : Not dangerous cargo.

Slight smell. Keep dry.

Keep separated from foodstuffs.

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### SECTION 15 REGULATORY INFORMATION

RISK PHRASES NC Not classified.  
SAFETY PHRASES NC Not classified.

### SECTION 16 OTHER INFORMATION

Product may contain varying levels of additives, such as slip and no blocking agents, antioxidants, stabilizers, and corrosion inhibitors. Certain grades may contain talcum, as an additive that is encapsulated in the polymer. Inhaled talcum in an occupational environment has been not classified as a Group 1 human carcinogen by the International Agency for Research on Cancer. Centerplastics limited Company has assessed the potential for release of talcum to the air when this polymer is handled and has determined that talcum encapsulated in this polymer is not expected to pose a health hazard when processed under normal conditions of use.

REVISION SUMMARY: March 2011

REVISION N.1

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