

1 . Product and company identification

Product name: Polymaker PC-Plus™

Manufacturer : JF Polymers (Suzhou) Co. Ltd.

Haicheng Industrial Park, Building 7,

Changshu Economic and Technological Zone, Changshu, Suzhou, Jiangsu Province, 215513, China

Emergency telephone number :

+86-512-52096516; or call LOCAL POISON CONTROL CENTER

2 . Hazards identification

Classification of the substance or mixture

GHS Classification: Not a dangerous substance according to GHS.

GHS-Labeling: Not a dangerous substance according to GHS.

3 . Composition/information on ingredients

Type of product: Mixture

Polycarbonate based on bisphenol a flame-retarded

4 . First aid measures

Description of first aid measures

In case of skin contact: 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 skin contact wash affected areas thoroughly with soap and plenty of water.

5 . Fire-fighting measures

Suitable extinguishing media: sprayed water jet, extinguishing powder, Carbon dioxide (CO2), Foam, Dry chemical

Special hazards arising from the substance or mixture: Burning releases carbon monoxide, carbon dioxide, oxides of

Material Safety Data Sheet

nitrogen and traces of hydrogen cyanide. In the event of fire and/or explosion do not breathe fumes.

Advice for fire-fighters: Firemen must wear self-contained breathing apparatus.
Do not allow contaminated extinguishing water to enter the soil, ground-water or surface waters.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: slip hazard!

Methods and material for containment and cleaning up: Use mechanical handling equipment. Avoid dust formation.

Reference to other sections: For further disposal measures see section 13.

7. Handling and storage

Precautions for safe handling: Under recommended processing conditions small amounts of residues of monomers and residual solvent may be emitted. Provided good ventilation and/or local exhaust systems are used, the Workplace Exposure Limit(s) stated in section 8 should not be exceeded.

Dust must be removed by effective exhaust ventilation.

Keep away from foodstuffs, drinks and tobacco. Wash hands before breaks and at end of work and use skin-protecting ointment. Change contaminated clothing

Conditions for safe storage, including any incompatibilities: No special storage conditions required.

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.

Control parameters

Substance	CAS-No.	Basis	Type	Value	Ceiling Limit Value	Remarks
phenol		CN OEL	TWA	10 mg/m ³		
phenol		CN OEL				Dermal absorption possible
Chlorobenzene		CN OEL	TWA	50 mg/m ³		
General limiting value of dust		CN OEL	TWA	8 mg/m ³		Total dust
General limiting value of dust		CN OEL	STEL	10 mg/m ³		Total dust

Exposure controls

Respiratory protection: In case of dust formation use respiratory equipment with filter type particle filter P1 according to EN 143.

Hand protection: Suitable materials for safety gloves; EN 374: Polyvinyl chloride - PVC (>= 0.5 mm) Contaminated and/or damaged

Material Safety Data Sheet

gloves must be changed.

Eye protection: Wear eye/face protection.

Skin and body protection: Wear suitable protective clothing.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance: granular

Colour: different according to colouration

Odour: odourless

pH: not applicable

Softening point: > 130 - 160 °C

Upper/lower flammability or explosive limits: not applicable

Vapour pressure: not applicable

Density: ca. 1,2 - 1,4 g/cm³

Bulk density: 600 - 700 kg/m³

Water solubility: practically insoluble

Autoignition temperature: not applicable

Ignition temperature: > 450 °C

Decomposition temperature: >= 380 °C

Viscosity, dynamic: not applicable

10. Stability and reactivity

Chemical stability: Fumes evolved by overheating during improperly processing or by burning may be injurious to health.

Possibility of hazardous reactions: No hazardous reactions observed.

Hazardous decomposition products: Caused by smouldering and incomplete combustion toxic fumes mainly consisting of CO and CO₂ may be developed.

11. Toxicological information

According to our experience and information the product has no harmful effects on health if properly handled.

Material Safety Data Sheet

12. Ecological information

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

Additional information on ecotoxicology: 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.

13. Disposal considerations

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

For disposal within the EC, the appropriate code according to the European Waste Catalogue (EWC) should be used.

Waste treatment methods

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.

14. Transport information

ADR/RID Not dangerous goods

ADN Not dangerous goods

This classification data does not apply to transportation by tanker. If required, additional information can be requested from the manufacturer.

IATA Not dangerous goods

IMDG Not dangerous goods

Special precautions for user: Not dangerous cargo. Keep dry

15. Regulatory information

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

Other regulations:

Only China: Compliant with the following local regulations

Only China: Regulations on the control over safety of hazardous chemicals, Decree No.344

Only China: GB/T 16483-2008 Safety data sheet for Chemical products-Content and order of section

Only China: GB 13690-2009 General rule for classification and hazard communication of chemicals

Only China: GB 20576- GB 20598, Safety rules for classification, precautionary labelling and precautionary statements of chemicals

Material Safety Data Sheet

16. Other information

The safety data sheet is also valid for corresponding MAS... types.

Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.