

Educational Innovations^{INC}[®]

MATERIAL SAFETY DATA SHEET Thermoplastic Polymer

1. Identification of the Substance and Company Undertaking

Product Name(s): Caprolactone Polymer Product Average Molecular Weight Min 80,000
Chemical Family Polymer
Intended Use Bioabsorbable polymer

Contact Information:

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The following MSDS applies to the finished product only (as a polymer granule or pellet). If handling the monomers to form the final polymeric product, consult the MSDS for the individual components and take appropriate precautions.

2. Hazards Identification

Substance non classified according to directive 67/548/EEC.

Product Composition

Ingredient	CAS No.
Poly(ϵ-caprolactone)	24980-41-4
Assay	>99.5%

3. Application of the substance

Recommended uses Pharmaceuticals
Automotive industry
Construction
Footwear industry
Film
For other particular use, please contact the supplier.

4. Physical and Chemical Properties

Appearance	White Granules/Pellets
Odor	Odorless
PH	Not applicable
Boiling Point	Not applicable
Flash Point	275°C
Density	1.1(at 60°C)
Solubility	Insoluble in water Soluble in Aromatic solvents, chlorinated hydrocarbons.
Viscosity	1,500,000mPa.S(at 100°C)
Freezing point	Ca. 35 °C
Melting Point/range	60-62°C
Decomposition temperature	Ca. 200°C



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5. Quality Index

Item	Index
Polydispersity exponent	Max 1.8
Moisture(%)	Max 0.05%
Colority(Pt-Co)	Max 250
Assay(%)	Min 99.5
Melting Point(°C)	60

6. Toxicological Information

The product is biologically inert.

7. Occupational Exposure Controls

Respiratory protection

Use only respiratory protection that confirms to international/national standards.

Eye protection

Protective goggles/face shield, if appropriate.

Hand protection

Protective gloves for protection against hot material.

Skin protection

Loose-fitting and long sleeved coverall.

Other precautions

Consult the industrial hygienist or the safety manager for the selection of personal protective equipment suitable for the working conditions.

8. Emergency and First Aid.

Eyes Contact

Flush eyes with running water for several minutes, while keeping the eyelids wide open.

Skin contact

In case of contact with molten polymer: cool rapidly with cold water without attempting to peel it from skin, obtain medical treatment for burns.

Inhalation

Remove the subject from dusty environment and let him blow his nose.



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9. Disposal Considerations

Waste Treatment

Dispose in compliance with local and national regulations.

It is recommended to contact the producer for recycling/recovery.

If not possible.

Send the product to an authorized industrial waste incinerator or dispose it at a land fill authorized for industrial waste.

10. Accidental Release Measures

Personal Precautions

Follow the protective measures given above, spilled material can be a slipping hazard.

Methods for cleaning up

Collect the product with suitable means avoiding dust formation.

Place material into a closed and labeled container.

For disposal methods, refer to following disposal consideration.

Environmental precautions

Prevent discharges into the environment(sewers, rivers, soils etc.)

11. Fire-fighting Measures

Suitable extinguishing media

Powder, Foam, AFFF, CO₂, , water spray, large quantities of water.

12. Handling, storage and transportation.

Handling Avoid heating the product above the decomposition temperature(Ca. 200°C)

Storage Keep in original packaging, closed in a dry area, keep away from ignition and heat sources.

Transportation Not subject



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