1. IDENTIFICATION OF THE PREPARATION AND THE COMPANY/UNDERTAKING

1.1 Identification of the Preparation

Chemical Name: Polystyrene (PS)
Designation or Trade Name: EDISTIR Normal Grades

Commonly used Synonyms: General Purpose Polystyrene, (GPPS)

1.2 Identification of the Company/Undertaking

Responsible for placing on the EU Market.

EniChem SpA

Elastomens and Styrenics Division

Plazza Boldrini, 1 – 20097 S. Donato Milanese (MI), Italy

Telephone No: ++39 2 520 1

1.3 **Emergency Contact:**

LYRECO

RUE DU 19 MARS 1962

59770 MARLY

FRANCE Telephone No: +33 (0) 3 27 23 64 00

2. **COMPOSITION / INFORMATION ON INGREDIENTS**

The preparation is essentially made of:

POLYSTYRENE (PS)

CAS name: POLYSTYRENE

CAS # 9003-53-6

3. **HAZARDS IDENTIFICATION**

Critical Hazards to Man:

The preparation is not hazardous in the form in which it is places on the market and under the normal and recommended conditions of storage and use. The preparation if not dangerous according to the criteria set by the European Union. See also chapters 4 and 11.

Critical Hazards to the Environment:

The preparation is stable under normal conditions of storage and use. It is not hazardous to the environment in its normal state.

4. **FIRST AID MEASURES**

Symptoms, effects, indication for immediate action

<u>Inhalation</u>

Symptoms: irritation of the respiratory organs

First Aid Action: Move the affected person away from the contaminated area into fresh air

Skin Contact

Symptoms: dust can irritate skin First Aid Action: Wash with plenty of water

Eye Contact

Symptoms: Dust can redden eves

First Aid Action: Wash with plenty of water. If irritation persists, seek medical assistance.

Ingestion: N.Ap.

Decoding:

(#) = Information has been updated at the revision date

N.Av. = Not available (or: impossible)

N.Ap. = Not applicable

5. **FIRE FIGHTING MEASURES**

Suitable Extinguishing Media:

Water, water spray, foam, dry chemicals, carbon dioxide
- Cool down the containers using water spray

Extinguishing media which must not be used for safety reasons: N.Ap.

Special Exposure Hazards arising from preparation itself, combustion products, resulting gases:

The preparation, when involved in a fire, burns with a sooty flame and release fumes made up of water, carbon dioxide, and carbon monoxide (when starved of oxygen). Overheating/pyrolysis evolves vapours made up of monomers, low molecular weight polymers and their oxidation products.

Special protective equipment for fire fighters:

Wear suitable protective clothing (helmet, goggles, fire resistant gloves, boots) and protect respiratory organs (self-contained breathing apparatus).

6. **ACCIDENTAL RELEASE MEASURES**

Personal Precautions: Do not walk on granules to avoid slipping

Environmental Precautions: Keep away from drains

Methods for Cleaning: Collect mechanically. Reuse if possible or dispose of as required

by national and local regulations (see chapter 13).

7. **HANDLING AND STORAGE**

7.1 **Handling**

Recommended equipment and procedures:

In normal conditions masks with antidust filters should be available for use when requested.

7.2 **Storage**

Avoid storage in the open under direct sunlight.

Keep away from sources of ignition, heat and sparks and from flammable products. In storage and working areas avoid pallets spilling as a possible cause of slipping.

Take precautionary measures against static discharges; earth all storage silos.

Product should be stored in a safe manner, to avoid danger from unstable or damaged packaging units (octabins/bags/boxes on pallet). In particular, stacking of packaged units can be dangerous to warehouse personnel.

8. **EXPOSURE CONTROLS / PERSONAL PROTECTION**

Precautionary and engineering measures to be taken during use in order to minimise worker exposure:

Traces of monomers may be given off during processing (moulding, extrusion), particularly at unusually high processing temperatures.

Workrooms must be provided with adequate ventilation and exhaust equipment to collect dusts and gas/vapours that may be emitted during the conversion or special operations such as scrap grinding.

Specific control parameters.

Environmental

Threshold limit values ACGH (Tab 2000)*

TWA STEL / C (ppm; mg/m 3) (ppm; mg/m 3)

Residual monomer: styrene 20 ppm, A4 40 ppm, A4

Other substances: inhalable 10 mg/m³ -

Medical

Recommended monitoring procedures: As required by the rules and regulations of each country

Equipment to provide adequate and personal protection:

Respiratory protection; in normal conditions masks with an antidust filter should be available for use when requested.

Specific hygiene measures: N.Ap.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Physical state at 23°C : Solid (pellets 3mm diameter and length)
Colour : transparent bluish or according to request

Odour : None

Density : 1050 kg/m3 Bulk Density : -650 kg/m3

Softening Temperature : 94-103°C (Vicat ISO 306/A)

Autoflammability : $> 450^{\circ}\text{C}$ Decomposition Temperature : $> 300^{\circ}\text{C}$ Solubility in water : Insoluble

Solubility with other solvents : Soluble in chlorinated solvents, aromatic

Solvents, ketones

10. **STABILITY AND REACTIVITY**

The preparation is stable and inert in the normal handling and storage condition (see chapter 7).

Materials to avoid: Avoid contact with solvents and with strong oxidising agents.

Hazardous decomposition products: See Point 5

Follow the recommended processing conditions to avoid formation of noxious gases and vapours.

11. TOXICOLOGICAL INFORMATION

Specific information on the preparation is not available.

Dangerous effects from exposure to the preparation:

The products dusts may cause irritation to the eyes and/or respiratory organs

Delayed and immediate effects from short and long term exposure:

^{*}Or statutory limit values in the country concerned

Carcinogenicity, mutagenicity, reproductive toxicity; no evidence of these effects has been reported for the preparation.

12. **ECOLOGICAL INFORMATION**

Use according to good working practice and avoid releasing the product into the environment.

Aguatic Toxicity and other data relating to ecotoxicity: N.Av.

Effects, behaviour and environmental fate:

Persistence and degradability: The preparation is not a biodegradable polymer.

13. **DISPOSAL CONSIDERATIONS**

Description and handling of residues: See below.

Appropriate methods of disposal:

Residues should be disposed of as required by national and local regulations.

Recycling:

Alter suitable treatment (cleaning, grinding, etc), the preparation can be safely re-used, as it is or mixed with fresh material, when this is compatible with the intended final application.

Incineration:

Must be done under approved conditions, possibly with energy recovery and only at suitable facilities equipped with a scrubber for the treatment of fumes before their release into the atmosphere.

Landfilling:

Should be avoided as far as possible. If unavoidable, use approved landfill sites.

14. TRANSPORT INFORMATION

The preparation is not dangerous according to the following regulations: ADR/RID, IMO, IATA

15. **REGULATORY INFORMATION**

Information on classification and labelling:

The preparation is not dangerous according to the applicable EC Regulations. Label not required.

16. **OTHER INFORMATION**

This safety data sheet has been drawn according to the requirements of Directive 93/112/EEC. Data and information contained in this Safety Data Sheet are based n our available knowledge at the last revision date. No guarantee can be given as to the sufficiency of any safety data sheet, nor can it be assumed that other or additional measures may not be required under particular or exceptional circumstance. The user must make sure of the fitness and completeness of the information, according to the specific use he wants to do.