

Safety Data Sheet

GENERAL PURPOSE POLYSTYRENE

HARMONIZED SYSTEM



1. PRODUCT IDENTIFICATION / ABOUT THE PRODUCER

Product ID	
Product Name:	Resirene GPPS®
Trade name:	HH-101, HH-103, HH-103 FB, HH-104, HH-104 SM, HH-106, HH-108, HH-112, HF-555, HF-770, HF-777
Chemical Family:	Thermoplastic Polymer
Alternative names:	Styrene Homopolymer, Polystyrene
Synonym:	GPPS
Relevant uses identified of the substance:	
Recommended Use:	Thermoplastic Resin for extrusion and injection molding. Food packaging, toys, technical parts.
Restrictions on Use:	Industrial and professional use.
Producer Details	
Producer:	Resirene, S.A. de C.V. Km. 15.5 Puebla-Tlaxcala Federal Highway Xicohtzinco, Tlaxcala 90780, Mexico Tel. +52 (222) 223 3101 Website: www.resirene.com Email: safety@resirene.com
Emergency telephones:	Tel. +52 (222) 223 3100 (24 hrs); Call Chemtrec: +1 703-741-5970 / 1-800-424-9300 France: 33-975181407 Germany: 49-69643508409; 0800-181-7059 Italy: 39-0245557031; 800-789-767 United Kingdom: 44-870-8200418 and 44-2038073798

2. HAZARDOUS IDENTIFICATION

GHS Rating	Not Classified.
Label Elements	Not applicable.

Other Hazards	Not applicable.
EC No 1272/2008	This product is not classified as dangerous according to Regulation (EC) No 1272/2008
Directive 67/548/EEC	This product is not classified as dangerous according to EU Directive 67/548/EEC
EC No 1907/2006 EG	This product complies REACH Regulation (EC) No 1907/2006
Emergency Overview	Product is an inert solid, in pellet form with no odor. This product is not considered flammable according to OSHA but will burn on prolonged exposure to flame or high temperature. Vapors and fumes released during thermal processing may be irritating to the eyes, skin, and respiratory system. Contact with molten material may cause thermal burns. Slipping hazard.

3. INGREDIENT INFORMATION

Name of Substance	CAS Reg. No.	Weight (%)
Polystyrene	9003-53-6	>98
Other Additives	Confidential	1-3

This product contains polymers with high molecular weight and is not expected to be chemically active under normal handling and processing conditions.

4. FIRST AID

Inhalation:	The dust can cause irritation to the upper respiratory tract (nose and throat). Move the affected person to a ventilated area and remain calm.
Ingestion:	Rinse your mouth and give enough water to drink. Remove any type of denture if any. If difficulties occur, seek medical attention. If the product was swallowed, seek medical help. Do not induce vomiting unless directed to do so by medical personnel. The toxicity of a single oral dose is considered to be extremely low. No anticipated risks from ingestion of small amounts incidental to normal handling operations.
Skin contact:	At room temperature essentially the product does not irritate the skin. Mechanical damage only. Absorption by the skin is very unlikely given the physical properties of the product. Areas affected by contact with melted product should be quickly placed under a stream of cold water. Burns caused by contact with melted material should be treated in a hospital.
Eye contact:	Rinse your eyes with plenty of water. Seek immediate medical attention.
Note to doctors:	There is no specific treatment. Contact a poison specialist immediately if ingestion or inhalation was heavy.

5. FIRE MEASURES

Suitable extinguishing media:	Water, dry means for firefighting, foam, carbon dioxide.
Specific risks:	Under fire conditions polymers decompose. The smoke generated may contain polymer fragments of variable composition in addition to unidentified toxic or irritating compounds. The products that can be generated during combustion, but that may not necessarily be the only ones are: carbon dioxide, carbon monoxide and small amounts of styrene.
More safety information:	Very dense smoke is generated when combustion with little oxygen occurs. Mechanical handling of the material can generate dusts. To reduce the risk of an explosion caused by dust, do not allow dust to accumulate.
Instructions for fighting fires:	Keep people away. Isolate the fire area and do not allow anyone to enter unless necessary. Cool the surroundings with water to concentrate the fire zone. The use by hand of carbon dioxide or extinguishers is feasible for small fires. Soak well with water to cool and prevent re-ignition.
Special protective equipment:	Wear self-contained positive pressure breathing apparatus (SCBA) and firefighting protective clothing (including firefighter helmet, coat, pants, boots, and gloves). If protective equipment is not available, fight the fire from a protected location or at a safe distance.
More information:	Dispose of fire debris and contaminated extinguishing water in compliance with local legislation.

6. MEASURES TO BE TAKEN IN CASE OF ACCIDENTAL SPILLAGE OR LEAKAGE

Personal precautions:	No special training related to personal risks is required when using this product. Pellets can present a slip fall hazard. Ignition sources must be kept very clear.
Environmental precautions:	Avoid dispersion of spilled material, its contact with soil, channels, drains and sewers. Inform the competent authorities if the product has caused any type of contamination (sewers, canals, soil or air).
Major spills:	Move containers from the spill area. Try to collect the material from the top of the spill. Avoid entering sewers, water channels, basements, or confined areas. Vacuum or sweep the material and place it in a labeled waste container.
Small spills:	Move containers from the spill area. Vacuum or sweep the material and place it in a labeled waste container.

7. HANDLING AND STORAGE

Handling:	Wear appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be completely prohibited in areas where
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Storage:

material is handled, stored and processed. Workers should wash their hands and face before eating or drinking. Avoid contact with eyes, skin, and clothing. Keep the material in the original container or in another compatible container for handling, keep it firmly closed when not in use. Once the containers have become empty, they may contain product residues that can be dangerous. Do not reuse the container. Land all equipment containing the material.

Store in accordance with local laws and regulations. Store in the original container protected from sunlight in a dry, cool, well-ventilated area away from incompatible materials (see section 10) and food and water. Keep the container tightly closed and sealed until ready to use. Containers that have been opened should be carefully resealed and kept face up to prevent spillage. Do not store material in containers that are not labeled. Never stretch more than 2 pallets.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Personal Protective Equipment

Respiratory protection:

Breathing protection if dusts are formed. Particle filter Type P1 or FFP1 (low efficiency for solid particles e.g. EN143, 149). Purifying respirator in case the polymer produces vapours or fumes by heating or dust is produced from it by grinding.

Hand protection:

Wear gloves for material handling when hot or melted (e.g. cotton or leather gloves).

Eye protection:

Safety glasses with side covers (frame goggles).

Body protection:

Body protection should be selected according to the activity and type of exposure (e.g. safety boots, chemical protective suit etc.).

General safety and hygiene measures:

Avoid contact of molten material with skin. Avoid inhalation of dusts/mists/vapors. Eye wash fountains and safety showers must be easily accessible. Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Fitness:	Granulated solid.
Colour:	Transparent
Smell:	Odorless
Melt Point:	220 °C (428 °F)
Flash Point:	Not applicable
Specific gravity:	1.05 (Water =1)
Solubility in water:	Insoluble

10. STABILITY AND REACTIVITY

Stability: The product is stable.

Conditions to avoid:	Avoid extreme heat. Avoid any source of ignition: heat, sparks, flames.
Substances to avoid:	Strong oxidizing agents
Dangerous reactions:	The product is chemically stable.
Hazardous decomposition products:	Monomers, oxides, gases/vapours, hydrocarbons, low molecular weight cyclic oligomers, degradation gases can be released if the product gets too hot.

11. TOXICOLOGICAL INFORMATION

Toxicity:	No significant or critical effect.
Persistence and degradability:	Product is not readily biodegradable. Not toxic to sewage organisms.
Bioaccumulative Potential:	To avoid bioaccumulation plastic should not be disposed in the sea or in other water environments.
Mobility in soil:	Product is not soluble in water. Substance is heavier than water and sinks. Mobility is low.
Results PBT & vPvB assessment:	According to the revised Annex XIII of regulation (EC) 1907/2006 and (EC) 253/2011: No information available on the product as such

12. ECOLOGICAL INFORMATION

Movement and Partitioning:	Bioconcentration is not expected given the high molecular weight (MW>1000). In terrestrial environment, the material will be maintained at ground level. In an aquatic environment, the material will sink and remain in the sediment.
Degradation and persistence:	The material is inert in the environment. In the aquatic environment, the material will sink and remain settled.
Ecotoxicity:	No toxicity is expected, perhaps mechanical adverse effects on waterfalls and aquatic life.

13. DISPOSAL CONSIDERATIONS

DISPOSAL: DO NOT DISCHARGE INTO ANY SEWER, ON THE GROUND OR INTO ANY BODY OF WATER. All disposal methods must comply with Federal, State, and Local laws.

Regulations may vary for each location. The characterization of waste and compliance with applicable laws are the sole responsibility of the person generating the waste.

RESIRENE, S.A. DE C.V. HAS NO CONTROL OVER THE ADMINISTRATION PRACTICES OR PRODUCTION PROCESSES OF THIRD PARTIES WHO USE THE MATERIAL. THE INFORMATION PRESENTED HERE CORRESPONDS ONLY TO THE PRODUCT SHIPPED UNDER THE CONDITIONS INDICATED IN SECTION 3 OF THIS DOCUMENT.

HANDLING OF UNUSED/UNCONTAMINATED MATERIAL: The best options include shipping the material to: recyclers, incinerators or other thermal destruction device. As a service to its customers, Resirene can provide names of sources of information to help identify waste management companies and others that recycle, reprocess or handle chemicals or plastics, or handle used drums.

Resirene's Customer Information Center telephone: +52 (222) 223 3101, or within USA Toll free 1866 372 3470, or within México Toll free 01 800 RESINAS for further details.

14. TRANSPORTATION INFORMATION

U.S. Department of Transportation (D.O.T.):	This product is not regulated by the D.O.T when shipped locally by land.
Canadian TDG Information:	This product is not regulated by TDG when shipped locally by land.
European Union:	This product is not regulated.
IATA:	This product is not controlled by IATA for air transport.

15. REGULATORY INFORMATION

NOTE: The information contained in this document is given in good faith, based on the information available and considered reliable at the time of preparation of this document. However, no warranty or security is given about the information or products described herein. Legal requirements are subject to change and may differ from place to place; it is the buyer's responsibility to ensure that its activities comply with Federal, State or Local laws.

Polymer	TSCA Inventory: listed; EPA flags XU TSCA HPVC: not listed Carcinogen Status: IARC Rating: Group 3 OSHA Carcinogen: not listed NTP Rating: not listed
Styrene	TSCA Inventory: listed TSCA HPVC: not listed Carcinogen Status: IARC Rating: Group 2A OSHA Carcinogen: not listed

	NTP Rating: listed Clean Air Act: Hazardous Air Pollutants: yes SOCMI Chemical: yes Clean Water Act: Hazardous Substances: RQ 1000 lbs. Other Environmental Laws: CERCLA: RQ 1000 lbs. RCRA Groundwater Monitoring: Methods 8020, 8240 / PQL 1, 5 SARA Title III Section 313, Toxic Release: Conc. 0.1% / Threshold Standard NIOSH Recommendations: Occupational Health Guideline: 0571
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E. U. REGULATIONS

European Inventory of Existing Commercial Chemical Substances (EINECS): The components of this product are on the EINECS inventory or are exempt from inventory requirements.

EC Classification and User Label Information: This product is not classified as dangerous according to EC criteria.

U.S. REGULATIONS

California Proposition 65:

THIS PRODUCT(S) CONTAINS A CHEMICAL(S) KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER AND BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

SARA HAZARD CATEGORY: This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

Not to have met any hazard category

TOXIC SUBSTANCES CONTROL ACT (TSCA):

All ingredients are on the TSCA inventory or are not required to be listed on the TSCA inventory.

OSHA HAZARD COMMUNICATION STANDARD:

This product is not a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

CANADIAN REGULATIONS

WHMIS INFORMATION: The Canadian Workplace Hazardous Materials Information System (WHMIS) Classification for this product is: This product is not a "Controlled Product" under WHMIS.

16. OTHER INFORMATION

Previous Document Date: January 2024

Version: 6.6

HMIS Classification:	Health: 1 Fire: 1 Physical Risk: 0 <i>Hazard scale: 0 = Minimum 1 = Light 2 = Moderate 3 = Serious 4 = Severe * = Chronic Risk</i>
NFPA Rating:	Health: 1 Fire: 1 Physical Risk: 0 <i>Risk Scale: 0 = Minimum 1 = Light 2 = Moderate 3 = Serious 4 = Severe</i>

The information contained in this safety sheet, at the time of its issuance, is correct according to the information available. The information is understood as a guide for the use, handling, disposal, storage and transport of the products and does not imply any type of guarantee (implicit or explicit). To the extent permitted by law, the provider is not responsible for any errors or inaccuracies in the information published in this Safety Data Sheet. The information relates exclusively to the products mentioned, which may not be suitable for combination with other materials or use in processes other than those described herein.