# Material Safety Data Sheet

*According to REACH Regulation (EC) No. 1907/2006 and CLP Regulation (EC) No. 1272/2008*

## 000121 PCR HIPS Regranulate White

Issue Date: 21.09.2026 Revision Date: 18.10.2026

| SECTION 1: Identification of the substance/mixture and of the company/undertaking | |
|---|---|
| **1.1 Product Identifier** | |
| **Trade name** | 000121 PCR HIPS Regranulate White |
| **Product code** | 000121 |
| **Chemical Nature** | High Impact Polystyrene |
| **Components contributing to the hazard** | Not relevant |
| **CAS number** | 9003-55-8 |
| **EC number** | Not applicable (polymer) |
| **REACH Registration Number** | This substance is exempt from REACH registration under Article 2 (9) of REACH |
| **1.2 Relevant identified uses of the substance or mixture and uses advised against** | |
| **Identified uses** | Plastic processing, injection molding, extrusion |
| **Uses advised against** | Not suitable for medical implants, direct food contact without specific approval, or applications requiring high chemical resistance. |
| **1.3 Details of the supplier of the safety data sheet** | |
| **Company** | Sinox Polymers GmbH |
| **Address** | Grünenweg 5-7, 28195 Bremen, Germany |
| **Telephone** | +49 176 361 889 94 |
| **Email** | inquiries@sinox-polymers.com |
| **1.4 Emergency telephone number** | |

| SECTION 1: Identification of the substance/mixture and of the company/undertaking | |
|---|---|
| **General number for medical emergency** | 112 |
| **Poison Center GIZ-Nord (Göttingen)** | +49 551 19 240 |

| SECTION 2: Hazards identification | |
|---|---|
| **2.1 Classification of the substance or mixture** | |
| **Classification** | According to Regulation (EC) No. 1272/2008 (CLP), the product is not classified as hazardous. |
| **2.2 Label elements** | |
| **Hazard pictograms** | None |
| **Signal word** | None |
| **Hazard statements** | Not applicable |
| **Precautionary statements** | P261: Avoid breathing dust or fumes.<br>P280: Wear protective gloves when handling molten material.<br>P501: Dispose of contents/container in accordance with local regulations. |
| **2.3 Other hazards** | |
| **Dust explosion risk** | No dust explosion hazard. The product is supplied in granular form. |
| **Thermal hazards** | Vapors and fumes generated at high processing temperatures may cause irritation to eyes, nose, throat, and respiratory tract. |
| **Material-specific hazards** | Thermal processing may release residual styrene monomer. Ensure adequate ventilation. Styrene has an OEL of 20 ppm (TWA) per Directive 2004/37/EC. |

| SECTION 3: Composition/information on ingredients | |
|---|---|
| **3.1 Substances** | |
| **Substance name** | High Impact Polystyrene |
| **CAS number** | 9003-55-8 |
| **EC number** | Not applicable (polymer) |
| **Hazardous impurities** | None known |

| SECTION 4: First-aid measures |
|---|
| **4.1 Description of first-aid measures** |

| SECTION 4: First-aid measures | |
|---|---|
| **Inhalation** | When fumes of molten material have been inhaled: (1) Move person to fresh air as quickly as possible; (2) rest in half upright position; (3) loosen clothing; (4) keep warm. In case of respiratory problems move person to first aid station for medical treatment. |
| **Skin contact** | Any molten material on the skin/burns should be cooled (off) as quickly as possible by means of cold water. Cover the wound with sterile cloth and move person to first aid station or hospital for medical treatment. Attention: never pull off the molten material from the wound. |
| **Eye contact** | Rinse eyes immediately with water for at least 15 minutes. If irritation persists, seek medical attention. |
| **Ingestion** | No danger of toxicity, this material is biologically inactive. |
| **4.2 Most important symptoms and effects, both acute and delayed** | |
| **Symptoms** | Inhalation of fumes may cause irritation, headache, nausea.<br>Contact with molten polymer may cause burns. |
| **4.3 Indication of any immediate medical attention and special treatment needed** | |
| **Treatment** | No specific antidote known. Treat symptomatically. |

| SECTION 5: Fire-fighting measures | |
|---|---|
| **5.1 Extinguishing media** | |
| **Suitable** | Water spray, foam, $CO_2$, dry chemical powder |
| **Unsuitable** | High-pressure water jet |
| **5.2 Special hazards arising from the substance or mixture** | |
| **Hazards** | Combustible solid; burns with sooty flame and dense black smoke. Hazardous decomposition products: Carbon monoxide, carbon dioxide, styrene monomer, and other aromatic hydrocarbons. Note: Styrene is classified as IARC Group 2B (possibly carcinogenic to humans). |
| **5.3 Advice for firefighters** | |
| **Advice** | Use self-contained breathing apparatus (SCBA) and full protective gear. |

| SECTION 6: Accidental release measures | |
|---|---|
| **6.1 Personal precautions, protective equipment, and emergency procedures** | |
| **Precautions** | Avoid dust formation. Ensure adequate ventilation. |
| **6.2 Environmental precautions** | |
| **Precautions** | Prevent material from entering drains or watercourses. |
| **6.3 Methods and material for containment and cleaning up** | |

| SECTION 6: Accidental release measures | |
|---|---|
| **Methods** | Sweep up and place in suitable containers for disposal or recycling. |
| **6.4 Reference to other sections** | |
| **References** | See Section 8 for exposure controls and personal protection. See Section 13 for disposal considerations. |

| SECTION 7: Handling and storage | |
|---|---|
| **7.1 Precautions for safe handling** | |
| **Handling** | Provide local exhaust ventilation during processing.<br>Avoid dust generation.<br>Keep away from heat, sparks, and open flames. |
| **7.2 Conditions for safe storage, including any incompatibilities** | |
| **Storage** | Store in a cool, dry, well-ventilated area away from direct sunlight and heat sources.<br>Keep containers closed when not in use.<br>Store away from strong oxidizing agents. |
| **7.3 Specific end use(s)** | |
| **End uses** | Intended for industrial plastic processing (injection molding, extrusion). No specific recommendations beyond the measures stated in this SDS. |

| SECTION 8: Exposure controls/personal protection | |
|---|---|
| **8.1 Control parameters** | |
| **Dust exposure limits** | General dust exposure limits: 10 mg/m$^3$ (total dust), 5 mg/m$^3$ (respirable dust). |
| **Substance-specific OELs** | Styrene: OEL 20 ppm / 85 mg/m$^3$ (TWA), STEL 40 ppm / 170 mg/m$^3$ per Directive 2004/37/EC.<br>IARC Group 2B (possibly carcinogenic to humans). |
| **8.2 Exposure controls** | |
| **Respiratory protection** | Use dust masks when exceeding exposure limits. For materials with specific OELs listed above, use appropriate respiratory protection rated for the identified substances. |
| **Hand protection** | Heat-resistant gloves when handling hot material. |
| **Eye protection** | Safety glasses with side shields. |
| **Skin protection** | Protective clothing as needed. |

| SECTION 9: Physical and chemical properties |
|---|
| **9.1 Information on basic physical and chemical properties** |

## SECTION 9: Physical and chemical properties

| | |
|---|---|
| **Physical state** | Solid at 20°C |
| **Odor** | Slight styrene-like |
| **Odor threshold** | Not applicable |
| **pH** | Not applicable (insoluble in water) |
| **Flashpoint** | >345°C |
| **Color** | White |
| **Form** | Regranulate |
| **Melt point** | 210–250°C (processing range) |
| **Boiling point** | Not applicable (decomposes before boiling) |
| **Evaporation rate** | Not applicable |
| **Flammability (solid, gas)** | Combustible solid; burns with sooty flame and dense black smoke |
| **Upper/lower flammability limits** | Not determined for solid form |
| **Vapor pressure** | Not applicable at ambient temperature |
| **Vapor density** | Not applicable |
| **Relative density** | 1.05 g/cm$^3$ |
| **Auto Ignition Temp.** | >450°C |
| **Decomposition temperature** | >300°C |
| **Solubility in water** | Insoluble |
| **Solubility in other solvents** | Soluble in aromatic hydrocarbons, ketones, and chlorinated solvents |
| **Partition coefficient (n-octanol/water)** | Not applicable (polymer) |
| **Viscosity** | Not applicable in solid state; melt flow index dependent on grade |
| **Dust explosive properties** | Not applicable – no dust explosion hazard. The product is supplied in granular form. |
| **Minimum ignition temperature** | 490°C |
| **9.2 Other information** | |
| **Other information** | No additional relevant physical or chemical data available. |

## SECTION 10: Stability and reactivity

| SECTION 10: Stability and reactivity | |
|---|---|
| **10.1 Reactivity** | |
| **Reactivity** | Stable under normal conditions. No dangerous reactions known under normal use. |
| **10.2 Chemical stability** | |
| **Chemical stability** | Stable under recommended storage conditions. |
| **10.3 Possibility of hazardous reactions** | |
| **Hazardous reactions** | No hazardous polymerization will occur. No dangerous reactions known under normal use. |
| **10.4 Conditions to avoid** | |
| **Conditions to avoid** | Temperatures above 300°C, open flames, strong heat sources. |
| **10.5 Incompatible materials** | |
| **Incompatible materials** | Strong oxidizing agents. |
| **10.6 Hazardous decomposition products** | |
| **Hazardous decomposition products** | At high temperatures (>300°C): Carbon monoxide, carbon dioxide, styrene monomer, and other aromatic hydrocarbons. Note: Styrene is classified as IARC Group 2B (possibly carcinogenic to humans). |

| SECTION 11: Toxicological information | |
|---|---|
| **11.1 Information on hazard classes as defined in Regulation (EC) No. 1272/2008** | |
| **Acute toxicity** | None (LD50 oral rat >5000 mg/kg) |
| **Skin corrosion/irritation** | Not classified as irritating. |
| **Serious eye damage/irritation** | Not classified as irritating. |
| **Respiratory or skin sensitization** | No data available. Not expected to be a sensitizer. |
| **Germ cell mutagenicity** | No data available. Not expected to be mutagenic. |
| **Carcinogenicity** | No evidence of carcinogenicity (not listed by IARC, NTP, or OSHA). |
| **Reproductive toxicity** | No data available. Not expected to be a reproductive toxicant. |
| **STOT – single exposure** | Exposure to decomposition fumes may cause respiratory irritation in sensitive individuals. |
| **STOT – repeated exposure** | No data available. Not expected to cause organ damage from repeated exposure. |
| **Aspiration hazard** | Not applicable (solid material). |

| SECTION 11: Toxicological information | |
|---|---|
| **11.2 Information on other hazards** | |
| **Endocrine disrupting properties** | High Impact Polystyrene in solid polymer form is not known to have endocrine disrupting properties. Residual styrene monomer content is typically below 0.1%. |
| **Other information** | Contact with molten polymer may cause thermal burns. |

| SECTION 12: Ecological information | |
|---|---|
| **12.1 Toxicity** | |
| **Ecotoxicity** | No indication that this material poses a risk to the environment. Insoluble, non-toxic solid material.<br>Water Hazard Class (Germany): nwg – nicht wassergefährdend (classification per AwSV). |
| **Aquatic toxicity** | No known effects on aquatic organisms. Not classified as hazardous to the aquatic environment. |
| **12.2 Persistence and degradability** | |
| **Persistence/degradability** | Very low UV degradability. High Impact Polystyrene is generally considered non-biodegradable. |
| **12.3 Bioaccumulative potential** | |
| **Bioaccumulative potential** | Low tendency for bioaccumulation due to high molecular weight and insolubility in water. |
| **12.4 Mobility in soil** | |
| **Mobility in soil** | Low mobility. Solid material will remain on the surface. |
| **12.5 Results of PBT and vPvB assessment** | |
| **PBT/vPvB assessment** | This substance/mixture does not meet the PBT criteria of REACH Regulation, Annex XIII.<br>This substance/mixture does not meet the vPvB criteria of REACH Regulation, Annex XIII. |
| **12.6 Endocrine disrupting properties** | |
| **Endocrine disrupting properties** | High Impact Polystyrene in solid polymer form is not known to have endocrine disrupting properties. Residual styrene monomer content is typically below 0.1%.<br>Assessment per Regulation (EU) 2017/2100 and Commission Delegated Regulation (EU) 2020/217. |
| **12.7 Other adverse effects** | |
| **Other adverse effects** | No other known adverse environmental effects. Prevent large quantities from entering waterways as physical pollution. |

| SECTION 13: Disposal considerations | |
|---|---|
| **13.1 Waste treatment methods** | |
| **Product disposal** | Dispose of in accordance with local, national, and international regulations. Recycling is recommended where possible.<br>European Waste Code (EWC): 07 02 13 (waste plastic). |
| **Packaging disposal** | Empty packaging may be recycled. Dispose of contaminated packaging as per local regulations. |
| **Special precautions** | Do not burn in open fires. Incineration should be carried out in approved facilities with proper emission controls. |

| SECTION 14: Transport information | |
|---|---|
| **14.1 UN number or ID number** | |
| **UN number** | Not applicable – not classified as dangerous goods. |
| **14.2 UN proper shipping name** | |
| **Proper shipping name** | Not applicable |
| **14.3 Transport hazard class(es)** | |
| **Transport hazard class** | Not regulated under ADR/RID/IMDG/IATA. |
| **14.4 Packing group** | |
| **Packing group** | Not applicable |
| **14.5 Environmental hazards** | |
| **Environmental hazards** | Not classified as environmentally hazardous under transport regulations. |
| **14.6 Special precautions for user** | |
| **Special precautions** | No special precautions required. Handle with normal care to prevent spillage. |
| **14.7 Maritime transport in bulk according to IMO instruments** | |
| **Maritime bulk transport** | Not applicable. Product is typically transported in packaged form (bags, octabins, containers). |

| SECTION 15: Regulatory information | |
|---|---|
| **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture** | |
| **EU Regulations** | This product is not classified as hazardous under CLP Regulation (EC) No. 1272/2008. |

| SECTION 15: Regulatory information | |
|---|---|
| **REACH** | Polymers are exempt from REACH registration under Article 2(9) of Regulation (EC) No. 1907/2006.<br>Not listed on the REACH SVHC candidate list (Substances of Very High Concern). |
| **Seveso III Directive** | Not covered by Directive 2012/18/EU (Seveso III). |
| **National regulations** | Water Hazard Class (Germany): nwg – nicht wassergefährdend – classification per AwSV (Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen).<br>Additional national regulations may apply to recycled plastics in specific applications (e.g., food contact materials under Regulation (EU) No. 10/2011). |
| **15.2 Chemical safety assessment** | |
| **Chemical safety assessment** | A chemical safety assessment has not been carried out for this substance, as it is exempt from REACH registration. |

| SECTION 16: Other information | |
|---|---|
| **Version** | 1.1 |
| **Issue date** | 21.09.2026 |
| **Revision date** | 18.10.2026 |
| **Revision history** | Version 1.1 – Revision (18.10.2026).<br>Version 1.0 – Initial issue (21.09.2026). |
| **Abbreviations and acronyms** | ADR: European Agreement on the International Carriage of Dangerous Goods by Road<br>CAS: Chemical Abstracts Service<br>CLP: Classification, Labelling and Packaging (Regulation EC No. 1272/2008)<br>EC: European Community<br>IATA: International Air Transport Association<br>IMDG: International Maritime Dangerous Goods Code<br>LD50: Lethal Dose 50%<br>PBT: Persistent, Bioaccumulative and Toxic<br>PCR: Post-Consumer Recycled<br>HIPS: High Impact Polystyrene<br>REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals<br>RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail<br>SCBA: Self-Contained Breathing Apparatus<br>SDS/MSDS: (Material) Safety Data Sheet<br>STOT: Specific Target Organ Toxicity<br>SVHC: Substance of Very High Concern<br>vPvB: Very Persistent and Very Bioaccumulative |
| **Key literature/data sources** | ECHA (European Chemicals Agency) database<br>Regulation (EC) No. 1907/2006 (REACH)<br>Regulation (EC) No. 1272/2008 (CLP)<br>Commission Regulation (EU) 2020/878 (Annex II to REACH) |
| **Training advice** | Users handling this product should be informed of the content of this SDS and receive training on safe handling of polymers in industrial environments. |

| SECTION 16: Other information | |
|---|---|
| **Disclaimer** | The information contained herein is based on our current knowledge and is intended to describe the product for the purposes of health, safety, and environmental requirements only. It should not be construed as guaranteeing any specific properties of the product.<br>None of the materials and/or products referenced herein should be used and/or applied in any product, device or material used or for use as human body implant or otherwise within the human body. |