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SAFETY DATA SHEET according to Regulation (EC) No. 190	Poncip	lastics.com	lyondellbasell	
CirculenRecover PP320			Gen. Variant: SDS_AT	
Version 1.0 Revision Date 0		Print Date 01	1/07/2022 SDS No.: BE38913	
1. Identification of the substance/mixture and of the company/undertaking         1.1 Product identifier         Trade name       : CirculenRecover PP320S Pearl         Synonyms       : 1-Propene polymers, PP         Substance name       : Polypropylene         Chemical characterization       : Polypropylene polymers         1.2 Relevant identified uses of the substance or mixture and uses advised against         Identified uses       : Manufacture of plastic articles by injection molding, extrusion				
1.3 Details of the supplier of the saf		nversion process.		
<b>Company</b> Basell Sales & Marketing Company Delftseplein 27E 3013 AA Rotterdam Netherlands	B.V.	Registration nur NA	mber         Telephone           31 (0) 10 275 55 00	
E-mail address : p Responsible/issuing person	product.safet	y@lyb.com		
1.4 Emergency telephone number				
Basell Sales & Marketing Company <u>Poison Center:</u> Gesundheid Österreich GMBH	B.V.		+32 3 575 1235	
AT: +43 1 406 43 43 24 hours all days				
2. Hazards identification				
2.1 Classification of the substance	or mixture			
Classification (REGULATION (	EC) No 1272	/2008)		
Not a hazardous substance or mi			(EC) No 1272/2008.	
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according to Regulation (EC) No. 1907/2006

# CirculenRecover PP320S Pearl

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## 2.2 Label elements

## Labeling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.

## 2.3 Other hazards

If small particles are generated during further processing, handling or by other means, may form combustible dust concentrations in air.

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB).

## 3. Composition/information on ingredients

### 3.2 Mixtures

### Components

Chemical name	CAS-No. EC-No.	Classification (REGULATION (EC) No 1272/2008)	<u>Weight %</u>
Mixture of Polypropylenes	Mixture		> 60.0 %

Contains: Additives and stabilizers

The mixture of Polypropylene is a recycled material from post-consumer waste and can contain residues of other polyolefins (polyethylene and other (co-)polymers)

### 4. First aid measures

### 4.1 Description of first-aid measures

General advice	: Take proper precautions to ensure your own health and safety before attempting rescue and providing first aid.
lf inhaled	<ul> <li>Remove person to fresh air. If signs/symptoms continue, get medical attention.</li> <li>In case of excessive inhalation of fumes that may be generated during heating of this material, move the person to fresh air.</li> <li>Obtain medical attention.</li> <li>Keep person warm, if necessary give Cardio-Pulmonary</li> </ul>
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In case of skin contact	<ul> <li>Resuscitation (CPR)</li> <li>If molten material contacts the skin, immediately flush with large amounts of water to cool the affected tissue and polymer.</li> <li>Do not attempt to peel polymer from skin as this will remove the skin.</li> <li>Obtain immediate emergency medical attention if burn is deep</li> </ul>	
In case of eye contact	<ul><li>or extensive.</li><li>Flush eyes thoroughly with water for several minutes and seek medical attention if discomfort persists.</li></ul>	
	<ul> <li>In case of eye contact with molten polymer: Continuously flush eye(s) with cool running water for at least 15 minutes.</li> <li>Beyond flushing, DO NOT attempt to remove the material adherent to the eye(s).</li> <li>Immediately seek medical attention.</li> </ul>	
If swallowed	: Adverse health effects due to ingestion are not anticipated.	
2 Most important symptoms a	nd effects, both acute and delayed	
Symptoms	: Inhalation of process fumes and vapors may cause soreness in the nose and throat and coughing.	
Hazards	: Dust contact with the eyes can lead to mechanical irritation. Molten polymer may cause thermal burns.	
3 Indication of any immediate	medical attention and special treatment needed	
Treatment	: Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient.	
. Fire-fighting measures		
.1 Extinguishing media		
Suitable extinguishing media	: SMALL FIRE: Use dry chemical, CO2, or water spray.	
	: LARGE FIRES: Use water spray hose nozzles from a safe location.	

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Unsuitable extinguishing media <b>5.2 Special hazards arising from</b> Specific hazards during fire fighting	<ul> <li>None known.</li> <li>the substance or mixture</li> <li>Keep away from heat and sound in case of fire hazardous decorroduced such as:</li> <li>Carbon monoxide, carbon diconydrocarbons (smoke).</li> </ul>	omposition products may be
5.3 Advice for firefighters		
Special protective equipment for fire-fighters	: Wear approved positive press apparatus and firefighter prote	
Further information	flammable vapors. Move containers from fire are Evacuate immediately in the container pressure relief devic Always stay away from tanks	kcal/kg with hose lines or monitor ompose polymer, and generate a if it can be done without risk. event of opening of storage ces or discoloration of container. engulfed in fire. of storage containers involved in
6. Accidental release measures	ctive equipment and emergency	procedures
Personal precautions	<ul> <li>Equip responders with proper Creates dangerous slipping h surface.</li> <li>Equip emergency responders equipment (PPE)</li> <li>Avoid generating dust.</li> </ul>	protection.
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	Potential combustible dust hazard. Polymer particles create slipping hazard on hard smooth surfaces.
6.2 Environmental precautions	
Environmental precautions :	Do not flush into surface water or sanitary sewer system.
6.3 Methods and materials for conta	ninment and cleaning up
Methods for containment / : Methods for cleaning up	On land, sweep/shovel into suitable disposal containers or vacuum using equipment which avoids ignition risk. On water, material is insoluble; collect and contain as any solid. All recovered material should be packaged, labeled, transported and disposed of or reclaimed in conformance with applicable laws and regulations and in conformance with good engineering practices. Reclaim where possible.
<ul><li>7. Handling and storage</li><li>7.1 Precautions for safe handling</li></ul>	
Advice on safe handling :	Material is in a pellet form. If converted to small particles during further processing, handling, or by other means, may form combustible dust concentrations in air. Avoid dust accumulation in enclosed space. Avoid generating dust; fine dust suspended in air and in the presence of an ignition source is a potential dust explosion hazard. Static discharge (spark), or other ignition sources, in high dust environments may ignite the dust and result in a dust explosion Electrostatic charge may build during conveying or handling. Equipment handling polymer should be conductive and grounded (earthed) and bonded. Metal containers involved in the transfer of this material should be grounded and bonded. All electrical equipment should conform to applicable electric codes and regulatory requirements for areas handling combustible dusts. After handling, always wash hands thoroughly with soap and
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	ision Date 06		Print Date 01		SDS No.: BE38913
Fire-fighting class		may develop section 10.	-	o processing tempe in the exhaust vent ot easily ignite.	-
7.2 Conditions for safe	storage, inclu	uding any ii	ncompatibilities		
Requirements for sto areas and containers 7.3 Specific end use(s)	5	and handlin should be u Store away oxidizing ag Keep conta	ousekeeping prac g. Process enclo- ised to avoid exce from excessive h gents. iner closed to pre- ures to prevent th	ctices during storag sures and adequate essive dust accumu heat and away from event contamination he build up of electr	e ventilation ulation. strong
8. Exposure controls/pe 8.1 Control parameters Ingredients with we Occupational Expo Components Materials that can be formed when handling this product: Non- specified (inert or	orkplace cont		ters Limit Value 10 mg/m3 inhalable	Basis Revision Date US (ACGIH) 2005	Additional Information
specified (inert or nuisance) dust					

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Materials that can	TWA	3 mg/m3	US (ACGIH)	
be formed when		respirable	2005	
handling this				
product: Non-				
specified (inert or				
nuisance) dust				

Consult local authorities for acceptable exposure limits.

### 8.2 Exposure controls

### Engineering measures

Follow the recommendations in international standard NFPA 654 (as amended and adopted) for equipment used to handle this product.

Engineering controls, i.e. enclosed systems, should be used whenever feasible to maintain exposures below acceptable criteria. When such controls are not feasible, or sufficient to achieve full conformance, other engineering controls such as local exhaust ventilation should be used. Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).

#### Personal protective equipment

Respiratory protection	:	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Use appropriate respiratory protection where atmosphere exceeds recommended limits. Where workers could be exposed to dust concentrations above the exposure limit they must use appropriate certified respirators.
Hand protection	:	Wear gloves that provide thermal protection where there is a potential for contact with heated material.
Eye and face protection	:	Dust service goggles should be worn to prevent mechanical injury or other irritation to eyes due to airborne particles which may result from handling this product.
Skin and body protection	:	Wear suitable protective clothing.
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Hygiene measures	be based on an evaluation of	onal protective equipment should the performance characteristics	
of the protective equipment relative to the task(s) to be performed, conditions present, duration of use, and the hazards and/or potential hazards that may be encountered during use. Use good personal hygiene practices. Wash hands before eating, drinking, smoking, or using toilet facilities. Take off contaminated clothing and wash before reuse.			
Environmental exposure con			
General advice	: See section 6.		
<ul> <li>9. Physical and chemical properti</li> <li>9.1 Information on basic physical Appearance Color</li> <li>Odor</li> <li>Flash point</li> <li>Lower explosion limit</li> <li>Upper explosion limit</li> <li>Flammability (solid, gas)</li> <li>Oxidizing properties</li> <li>Autoignition temperature</li> <li>Decomposition temperature</li> <li>Melting point/range</li> <li>Boiling point/boiling range</li> </ul>	<ul> <li>and chemical properties</li> <li>Pellets.</li> <li>off-white</li> <li>Slight.</li> <li>No Data Available.</li> <li>The minimum explosive cond varies according to particle si</li> <li>Not applicable.</li> <li>Polymer will burn but does not</li> <li>Not considered an oxidizing a</li> <li>&gt; 300 °C</li> <li>not determined</li> <li>50 - 170 °C</li> <li>Not applicable.</li> </ul>	ot easily ignite.	
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Vapor pressure	: Not applicable.				
Density	: > 1 g/cm3				
Water solubility	: Insoluble.				
Partition coefficient: n- octanol/water	: No Data Available.				
Viscosity, dynamic	: Not applicable.				
Relative vapor density	: Not applicable.				
Evaporation rate	: Not applicable.				
Explosive properties	: No Data Available.				
Other information	: No additional informa	tion available.			
10. Stability and reactivity					
10.1 Reactivity					
No known reactivity hazards	5.				
10.2 Chemical stability					
Stable under normal conditi					
10.3 Possibility of hazardous r Hazardous reactions					
	: Will not occur.				
10.4 Conditions to avoid					
Conditions to avoid	: Avoid contact with strong oxidizers, excessive heat, sparks or open flame.				
10.5 Incompatible materials					
Materials to avoid	: Material may be softe	ened by some hydrocar	bons.		
10.6 Hazardous decomposition	n products				
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CirculenRecover PP320         Version 1.0       Revision Date         Hazardous decomposition products       Thermal decomposition         11. Toxicological information       11.1 Information on toxicological of Acute toxicity         Acute oral toxicity       Acute inhalation toxicity	<ul> <li>e 06/04/2021 Print Date 01/07/2022 SDS No.: BE389</li> <li>: Not expected to decompose under normal conditions.</li> <li>: Note: Carbon monoxide, olefinic and paraffinic compounds, trace amounts of organic acids, ketones, aldehydes and</li> </ul>
Hazardous decomposition products Thermal decomposition 11. Toxicological information 11.1 Information on toxicological Acute toxicity Acute oral toxicity	<ul> <li>Not expected to decompose under normal conditions.</li> <li>Note: Carbon monoxide, olefinic and paraffinic compounds, trace amounts of organic acids, ketones, aldehydes and</li> </ul>
products Thermal decomposition 11. Toxicological information 11.1 Information on toxicological Acute toxicity Acute oral toxicity	: Note: Carbon monoxide, olefinic and paraffinic compounds, trace amounts of organic acids, ketones, aldehydes and
11.1 Information on toxicological Acute toxicity Acute oral toxicity	alcohols may be formed.
Acute toxicity Acute oral toxicity	
Acute oral toxicity	effects
Acute inhalation toxicity	: Not classified
	: Not classified
Acute dermal toxicity	: Not classified
Skin corrosion/irritation	: Not a skin irritant.
Serious eye damage/eye irritation	: Not an eye irritant. Mechanical irritation is possible.
Respiratory or skin sensitization	: Not classified
Chronic toxicity	
Carcinogenicity	: Not classified
Germ cell mutagenicity	: Not classified
Reproductive toxicity	
Effects on fertility / Effects on or via lactation	: Not classified
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Effects on Development	: Not classified				
Target Organ Systemic Toxi	cant - Single exposure				
	: The substance or mixture is not classified as specific target organ toxicant, single exposure.				
Target Organ Systemic Toxi	cant - Repeated exposure				
	: The substance or mixture is n organ toxicant, repeated expo				
Aspiration hazard	: Not applicable.				
12. Ecological information					
12.1 Ecotoxicology Assessment					
Short-term (acute) aquatic hazard	: Not classified				
Long-term (chronic) aquatic hazard	: Not classified				
12.2 Persistence and degradability					
Biodegradability	: Not expected to be biodegrada	able.			
12.3 Bioaccumulative potential					
Bioaccumulation	: This material is not expected	to bioaccumulate.			
12.4 Mobility in soil					
Mobility	: no data available				
12.5 Results of PBT and vPvB assessment					
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Result		ains no components considered cumulative and toxic (PBT) or ccumulative (vPvB).			
12.6 Other adverse effects					
Environmental fate and pathways	: This material is not volatile a	nd insoluble in water.			
12.7 Other information					
Additional ecological information	solubility of polymers.	minimal based on the low water duct. However, birds, fish and which may obstruct their			
13. Disposal considerations					
13.1 Waste treatment methods					
Product		or reclaimed in conformance with ns and in conformance with good			
14. Transport information					
Not regulated for transport					
15. Regulatory information					
15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture					
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## SAFETY DATA SHEET

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#### **REACh** status

If the product has been purchased from any company of the LyondellBasell group of companies registered in the European Union, we confirm that all substances in this preparation have been registered under REACh, in accordance with the deadlines set forth in REACh. (Regulation (EU) No. 1907/2006)

### Other international regulations

#### **Global Inventory Status**

The ingredients of this product are compliant with the following chemical inventory requirements or exemptions.

\*Additional Explanatory Status Statements follow the table, as necessary.

Country/Region	Inventory	Status Description
Australia	AICS	Not Compliant
Canada	DSL	Not Compliant
China	IECSC	Not Compliant
Europe	REACH	See REACH Compliance Statement
Japan	ENCS	Not Compliant
Korea	KECI	Not Compliant
New Zealand	NZIoC	Not Compliant
Philippines	PICCS	Not Compliant
United States of America	TSCA	Not Compliant
Taiwan	TCSCA	Not Compliant

Contact product.safety@lyb.com for additional global inventory information.

#### 15.2 Chemical safety assessment

No information available.

### **16. OTHER INFORMATION**

Material safety datasheet sections which have been updated:

First Edition Abbreviations and Acronyms

ACGIH - American Conference of Governmental Industrial Hygienists

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ACGIH BEIs - American Conference of Governmental Industrial Hygienists Biological Exposure Indices ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road AICS - Australian Inventory of Chemical Substances ASTM - American Society for Testing and Materials **BEL - Biological Exposure Limits** BTEX - Benzene, Toluene, Ethylbenzene, Xylenes CAS - Chemical Abstracts Service CEFIC - European Chemical Industry Council CLP - Classification Packaging and Labelling COC - Cleveland Open-Cup CS - Consumer Scenario DIN - Deutsches Institut für Normung DN(M)EL - Derived No (Minimal) Effect Level DSL - Canada Domestic Substance List EC - European Commission EC50 - Median Effective Concentration ECETOC - European Center on Ecotoxicology and Toxicology of Chemicals ECHA - European Chemicals Agency EL50 - Effective Loading fifty ELINCS - EHR-Lab Interoperability and Connectivity Specification ENCS - Japanese Existing and New Chemical Substances Inventory ERC - Environmental Release Category EUSES - European Union System for the Evaluation of Substances EWC - European Waste Code GHS - Globally Harmonized System of Classification and Labelling of Ch IARC - International Agency for Research on Cancer IATA - International Air Transport Association IC50 - Inhibitory Concentration fifty IL50 = Inhibitory Level fifty IMDG - International Maritime Dangerous Goods **IECSC** - Chinese Chemicals Inventory **IOELV - Indicative Occupational Exposure Limit Values** IP346 - Institute of Petroleum test method N° 346 for the determination of polycyclic aromatics **DMSO-extractables KECI - Korea Existing Chemicals Inventory** Koc - Organic Carbon/Water Partition Coefficient LC50 - Lethal Concentration fifty LD50 - Lethal Dose fifty per cent. LL/EL/IL - Lethal Loading/Effective Loading/Inhibitory Loading LL50 - Lethal Loading fifty MAK Commission - Permanent Senate Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area MARPOL - International Convention for the Prevention of Pollution from Ships No. - Number NOEC/NOEL - No Observed Effect Concentration / No Observed Effect Level NZIoC - New Zealand Inventory of Chemicals 14 / 16



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OE\_HPV - Occupational Exposure - High Production Volume OECD - Organization for Economic Co-operation and Development **OEL - Occupational Exposure Limit** PBT - Persistent, Bio accumulative and Toxic PICCS - Philippine Inventory of Chemicals and Chemical Substances PNEC - Predicted No Effect Concentration **PPE - Personal Protective Equipment PROC - Process Category** QSAR - Quantitative Structure-Activity Relationship REACh - Registration Evaluation and Authorization of Chemicals RID - Regulations Relating to International Carriage of Dangerous Goods by Rail SDS - Safety Data Sheet SKIN DES - Skin Designation STEL - Short term exposure limit STP - Standard Temperature and Pressure TCSCA - Taiwan inventory of chemicals TGD - Technical Guidance Document TRA - Targeted Risk Assessment TSCA - US Toxic Substances Control Act TWA - Time-Weighted Average **UN** - United Nations vPvB - very Persistent and very Bioaccumulative WGK - German Water Endangerment Class

#### Disclaimer

Multiple legal entities and registration numbers may be displayed in Section 1. The Recipient shall refer to the shipping documents to identify the legal entity that supplied this product.

Information in this document is accurate to the best of our knowledge at the date of publication. The document is designed to provide users general information for safe handling, use, processing, storage, transportation, disposal and release and does not constitute any warranty or quality specification, either express or implied, including any warranty of merchantability or fitness for any particular purpose. Users shall determine whether the product is suitable for their use and can be used safely and legally.

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Numerical Data Presentation



according to Regulation (EC) No. 1907/2006

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The presentation of numerical data, such as that used for physical and chemical properties and toxicological values, is expressed using a comma (,) to separate digits into groups of three and a period (.) as the decimal marker. For example, 1,234.56 mg/kg = 1 234,56 mg/kg.

## Language Translations

The information presented in this document has been translated from English by a vendor LyondellBasell believes to be reliable. LyondellBasell and its vendor have made a good-faith effort to verify the accuracy of the translation, but assume no liability or other responsibility for any errors that may have occurred. Please refer to our web site (www.lyondellbasell.com) for the original document written in English.

End of Material Safety Data Sheet

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