SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product Name
PURAPOL PLA Neat resin

Trade name
PURAPOL L105
PURAPOL L130
PURAPOL L175
PURAPOL LX175

1.2 Relevant identified uses of the substance or mixture and uses advised against

Recommended Use
Plastics.

Uses advised against
Pharmaceutical, Medicinal products.

1.3 Details of the supplier of the safety data sheet

Purac Biochem
Arkelsedijk 46
NL-4206 AC Gorinchem
The Netherlands
Tel.: +31 183 695695
Fax: +31 183 695604
E-mail: sds@corbion.com

1.4 Emergency telephone number

UK National Poisons Information Service (NPIS) call 111 or, in life-threatening emergencies, 999

IE National Poisons Information Centre
+353 1 809 2566 or +353 1 837 9964 (only for for healthcare professionals)

Purac Biochem
+31 183 695695

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to EU Regulation 1272/2008/EC
Not classified.

2.2 Label elements

None.

2.3 Other hazards

This product does not meet the criteria for PBT or vPvB in accordance with Annex XIII of REACH.
SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>EC-No</th>
<th>CAS-No</th>
<th>Weight %</th>
<th>Classification (1272/2008/EC)</th>
<th>REACH registration number</th>
</tr>
</thead>
<tbody>
<tr>
<td>PURAPOL PLA, Optical purity &gt;90%</td>
<td>-</td>
<td>9051-89-2</td>
<td>&gt;99</td>
<td>-</td>
<td>Exempted</td>
</tr>
</tbody>
</table>

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General Advice
No hazards which require special first aid measures.

Eye Contact
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention immediately if symptoms occur.

Skin Contact
Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get medical attention immediately if symptoms occur.

Ingestion
Rinse mouth. Get medical attention immediately if symptoms occur.

Inhalation
Move to fresh air. Get medical attention immediately if symptoms occur.

Protection of first-aiders
Use personal protective equipment. Avoid contact with skin, eyes and clothing.

4.2 Most important symptoms and effects, both acute and delayed

Main symptoms
No acute and delayed symptoms and effects are observed.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician
Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable Extinguishing Media
Water spray, Foam, Dry powder, Carbon dioxide (CO₂).

Unsuitable Extinguishing Media
Do not use a solid water stream as it may scatter and spread fire.

5.2 Special hazards arising from the substance or mixture

Special Hazard
Hazardous decomposition products formed under fire conditions: Carbon oxides, Acetaldehyde.

5.3 Advice for firefighters

Fire fighting measures
Evacuate non-essential personnel Move containers from fire area if you can do it without risk. Keep containers and surroundings cool with water spray. Prevent fire extinguishing water from contaminating surface water or the ground water system.

Special protective equipment for fire-fighters
Wear self-contained breathing apparatus and protective suit.
SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Evacuate personnel to safe areas. Do not touch or walk through spilled material. Avoid dust formation. Avoid contact with skin, eyes and clothing. Do not breathe dust. Use personal protective equipment. Ensure adequate ventilation.

6.2 Environmental precautions
Should not be released into the environment. Prevent further leakage or spillage if safe to do so.

6.3 Methods and material for containment and cleaning up
Avoid dust formation. Sweep up and shovel into suitable containers for disposal. Following product recovery, flush area with water.

6.4 Reference to other sections
See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling
Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing. Avoid dust formation. Do not breathe dust. Ensure adequate ventilation. Wear personal protective equipment. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities
Store in accordance with local regulations. Keep containers tightly closed in a cool, well-ventilated place. Keep at temperatures below 50 °C / 122 °F. Protect from moisture, Water. To ensure the technical integrity of the product: Storage / Handle under nitrogen and protect from moisture.

7.3 Specific end use(s)

<table>
<thead>
<tr>
<th>Exposure scenario</th>
<th>Not available.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other information</td>
<td>Not available.</td>
</tr>
</tbody>
</table>
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

**Exposure Limits**
Contains no substances with occupational exposure limit values.

**Biological Limit Values**
Not established.

**Recommended monitoring procedures**
No information available.

**Derived No Effect Level (DNEL)**
No information available.

**Predicted No Effect Concentration (PNEC)**
No information available.

8.2 Exposure controls

**Appropriate Engineering Controls**
Ensure adequate ventilation, especially in confined areas. Keep at temperatures below 230 °C / 446 °F.

**Individual protection measures, such as personal protective equipment**

- **Eye Protection**
  Tightly fitting safety goggles (EN166).

- **Hand Protection**
  Protective gloves (EN374): Butyl rubber. Glove thickness: 0.5 mm. Break through time: >8 hours.
  Long sleeved clothing.

- **Skin and Body Protection**
  In case of insufficient ventilation wear suitable respiratory equipment.

- **Respiratory Protection**
  Recommended Filter Type
  P2 / FFP2.

**Hygiene Measures**
Handle in accordance with good industrial hygiene and safety practice. Workers must be trained in the proper use and handling of this product as required under applicable regulations. Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product. Wash contaminated clothing before re-use.

**Environmental exposure controls**
The product should not be allowed to enter drains, water courses or the soil.
# SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

## 9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state @20°C</td>
<td>Solid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Pellets</td>
</tr>
<tr>
<td>Colour</td>
<td>White / Opaque</td>
</tr>
<tr>
<td>Odour</td>
<td>Odourless</td>
</tr>
<tr>
<td>pH</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Melting/freezing point</td>
<td>150-230 °C / 302-446 °F</td>
</tr>
<tr>
<td>Boiling point/boiling range</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not flammable</td>
</tr>
<tr>
<td>Flammability Limits in Air</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Relative density</td>
<td>No information available</td>
</tr>
<tr>
<td>Solubility</td>
<td></td>
</tr>
<tr>
<td>Water solubility</td>
<td>Insoluble</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>No information available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>&gt; 230 °C / &gt; 230 °F</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not explosive</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>Not oxidizing</td>
</tr>
</tbody>
</table>

## 9.2 Other information

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density</td>
<td>1.2-1.3 g/cm³</td>
</tr>
</tbody>
</table>
SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity
No information available

10.2 Chemical stability
Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
Hazardous polymerisation does not occur.

10.4 Conditions to avoid
Temperatures above 230 °C / 446 °F.

10.5 Incompatible materials
Moisture, Water.

10.6 Hazardous decomposition products
Hazardous decomposition products formed under fire conditions: Carbon oxides, Acetaldehyde.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute Toxicity
Ingestion
No known effect.

Skin Contact
No known effect.

Inhalation
No known effect.

Skin Corrosion/Irritation
No known effect.

Serious eye damage/irritation
No known effect.

Respiratory or skin sensitisation
No known effect.

Germ Cell Mutagenicity
Not known to cause heritable genetic damage.

Carcinogenicity
Contains no ingredient listed as a carcinogen.

Reproductive Toxicity
Not known to cause birth defects or have a deleterious effect on a developing fetus. Not known to adversely affect reproductive functions and organs.

STOT-single exposure
No known effect.

STOT-repeated exposure
No known effect.

Aspiration Hazard
No known effect.
SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity
Contains no substances known to be hazardous for the environment.

12.2 Persistence and degradability
Decomposes in contact with water. Hydrolysis product (L-lactic acid): Readily biodegradable.

12.3 Bioaccumulative potential
No information available.

12.4 Mobility in soil
No information available.

12.5 Results of PBT and vPvB assessment
This substance is not considered to be persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB).

12.6 Other adverse effects
No information available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Waste from residues / unused products Dispose of in accordance with local regulations.
Contaminated Packaging Empty containers should be taken to an approved waste handling site for recycling or disposal.
SECTION 14: TRANSPORT INFORMATION

According to: ADR, RID, ADN, IMDG, IATA/ICAO.

14.1 UN number

Not regulated.

14.2 UN proper shipping name

Not regulated.

14.3 Transport hazard class(es)

Not regulated.

14.4 Packing group

Not regulated.

14.5 Environmental hazards

Not applicable.

14.6 Special precautions for user

Not applicable.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable.

SECTION 15: REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Restrictions on use

None.

Other Regulations

No information available.

15.2 Chemical safety assessment

No information available.
SECTION 16: OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3

Not applicable.

Revision note

Indication of the changes made to the previous version of the SDS: Trade name.

Training Advice

Workers must be trained in the proper use and handling of this product as required under applicable regulations.

Abbreviations/acronyms

REACH: Registration, Evaluation, Authorisation and Restriction of Chemical substances
EC: European Commission
STOT: Specific Target Organ Toxicity
PBT: Persistent, Bioaccumulating, Toxic
vPvB: very Persistent and very Bioaccumulating
ADR: Accord européen relatif au transport international des marchandises Dangereuses par Route
ADN: Accord européen relatif au transport international des marchandises Dangereuses par voies de Navigation intérieures
RID: Regulations for the International Transport of Dangerous Goods by Rail
IMDG: International Maritime Dangerous Goods Code
ICAO: International Civil Aviation Organization

SDS No.

CO00048


Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet