

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 20.10.2017

version nr: 1

Revision: 20.10.2017

SECTION 1: Identification of the substance/mixture and of the company/undertaking

· **1.1 Product identifier**

· **Trade name:** **RADILON® S HS 100 P NT**

· **Article number:** 1405

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

· **Sector of Use**

SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites

SU12 Manufacture of plastics products, including compounding and conversion

· **Product category** PC32 Polymer preparations and compounds

· **Process category**

PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions

PROC5 Mixing or blending in batch processes

PROC14 Tableting, compression, extrusion, pelletisation, granulation

· **Environmental release category** ERC11a Widespread use of articles with low release (indoor)

· **Article category** AC13 Plastic articles

· **Application of the substance / the mixture**

Production of items by injection moulding or comparable processes

· **1.3 Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

Radicinovacips S.p.A.

Via Provinciale 1331

24020 Villa d'Ogna (Bg)

Italy

· **Further information obtainable from:** Laboratory of Research & Development and Quality Control

· **1.4 Emergency telephone number:**

During regular office hours phone +39.0346.22453

E-mail: msds.plastics@radicigroup.com

SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**

· **Classification according to Regulation (EC) No 1272/2008**

The product is not classified according to the CLP regulation.

· **2.2 Label elements**

· **Labelling according to Regulation (EC) No 1272/2008** Void

· **Hazard pictograms** Void

· **Signal word** Void

· **Hazard statements** Void

· **2.3 Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

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SECTION 3: Composition/information on ingredients

· **3.2 Chemical characterisation: Mixtures**

· **Description:**

Base used: Polyamide 6

Synonyms: Polyamide 6- Nylon 6

CAS number: 25038-54-4

Chemical name: Polycaprolactam

Chemical Formula: $-[\text{NH}-(\text{CH}_2)_5\text{CO}]_n$

· **Dangerous components: Void**

SECTION 4: First aid measures

· **4.1 Description of first aid measures**

· **General information:** No special measures required

· **After inhalation:** Product is in granular form and thus inhalation is very unlikely

· **After skin contact:** Generally the product does not irritate the skin

· **After eye contact:** Keeping the eyelids wide-open, flush eyes for several minutes under running water

· **After swallowing:**

The product is not acutely toxic. In case of ingestion of a considerable quantity of material, seek medical assistance

· **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.

· **4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

SECTION 5: Firefighting measures

· **5.1 Extinguishing media**

· **Suitable extinguishing agents:**

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam

Use fire extinguishing methods appropriate to surrounding area

· **5.2 Special hazards arising from the substance or mixture**

Processing fumes evolved under processing conditions (thermal decomposition >340 °C) may contain trace amounts of carbon monoxide, carbon dioxide, ammonia, formaldehyde, cyanhydric acid, nitrogen oxides, acrolein and their derivatives

· **5.3 Advice for firefighters**

· **Protective equipment:**

No special measures required

Self-contained respiratory protective device.

SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**

Do not drop/scatter product granules on warehouse or workplace floors to prevent the possibility of slip and fall accidents

· **6.2 Environmental precautions:** No special measures required.

· **6.3 Methods and material for containment and cleaning up:** No special measures required.

· **6.4 Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment

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See Section 13 for disposal information.

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SECTION 7: Handling and storage

· **7.1 Precautions for safe handling**

Do not inhale the air trapped in the packaging

Do not drop/scatter product granules on warehouse or workplace floors to prevent the possibility of slip and fall accidents

In processing coloured materials, particular care must be exercised not to exceed recommended processing temperatures, as thermal decomposition may generate harmful products

The handling of product at the molten state (see Section 9) requires the use of suitable gloves to prevent burns

Do not ingest product granules: during digestion, gastric juices could hydrolyze the material releasing substances harmful in human health

Ensure that there are suitable exhaust systems in processing machine areas

· **Information about fire - and explosion protection:**

The product is not explosive (see Section 9). In case of fire see Section 5

· **7.2 Conditions for safe storage, including any incompatibilities**

· **Storage:**

· **Requirements to be met by storerooms and receptacles:**

Do not stack up packages too high without proper support to prevent the pile from collapsing

Keep the product away from heat sources since it is combustible

· **Information about storage in one common storage facility:** Not required.

· **Further information about storage conditions:**

Store in a dry place

Keep the product dry to allow for optimal processing

· **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

· **Additional information about design of technical facilities:** No further data; see Section 7

· **8.1 Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:** Not required.

· **8.2 Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Product in solid state: follow the ordinary precautionary measures for non-hazardous chemicals

Product in molten state: avoid skin contact with the molten material and do not breathe product vapours

· **Respiratory protection:** Not required.

· **Protection of hands:**

Protective gloves are not required for handling the product in a solid state

The use of appropriate protective gloves is required for handling the product in its molten state (see Section 9) to avoid burns

· **Material of gloves**

Rubber gloves

Leather gloves

Synthetic rubber gloves

· **Penetration time of glove material** Not available

· **Eye protection:** Safety glasses

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SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Appearance:

Form:	Chips
Colour:	Whitish
· Odour:	Odourless
· Odour threshold:	Not determined.

· pH-value: Not applicable.

· Change in condition

Melting point/freezing point:	220 °C 220 ± 3 °C
Initial boiling point and boiling range:	Not applicable, it's a solid.

· Flash point: >400 °C

· Flammability (solid, gas): Not determined.

· Ignition temperature: 440 °C

· Decomposition temperature: Not determined.

· Auto-ignition temperature: Product is not self-igniting

· Explosive properties: Product is not explosive

· Explosion limits:

Lower:	Not determined.
Upper:	Not determined.

· Vapour pressure: Not applicable.

· Density at 20 °C:	1.14 g/cm ³
· Relative density	Not determined.
· Vapour density	Not applicable.
· Evaporation rate	Not applicable.

· Solubility in / Miscibility with water: Insoluble

· Partition coefficient: n-octanol/water: Not applicable

· Viscosity:

Dynamic:	Not applicable.
Kinematic:	Not applicable.

· Solvent content:

Organic solvents:	0.0 %
VOC (EC)	0.00 %

Solids content: 100.0 %

· 9.2 Other information: No further relevant information available.

SECTION 10: Stability and reactivity

· 10.1 Reactivity: No further relevant information available.

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- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
At temperatures >340 °C the product undergoes thermal decomposition/degradation releasing fumes that may contain traces of cyanhydric acid, ammonia, acrylonitrile, formaldehyde, nitrogen oxides and their derivatives
- **10.3 Possibility of hazardous reactions**
Reacts with strong acids
Reacts with oxidizing agents
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **Primary irritant effect:**
- **Skin corrosion/irritation** Irritation could be caused by dust formed during product handling
- **Serious eye damage/irritation** Irritation could be caused by dust formed during product handling
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** Product is not biodegradable
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Generally not hazardous for water
Negative ecological effects are, according to the current state of knowledge, not expected.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods** Authorized discovery
- **Recommendation**
This product can be recycled and used for other appropriate applications
This product is not considered hazardous waste. Eliminate the waste according to local rules and regulations

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- **Uncleaned packaging:**
- **Recommendation:** Not hazardous according to the above regulations

SECTION 14: Transport information

- | | |
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| · 14.1 UN-Number | |
| · ADR, ADN, IMDG, IATA | Void |
| · 14.2 UN proper shipping name | |
| · ADR, ADN, IMDG, IATA | Void |
| · 14.3 Transport hazard class(es) | |
| · ADR, ADN, IMDG, IATA | |
| · Class | Void |
| · 14.4 Packing group | |
| · ADR, IMDG, IATA | Void |
| · 14.5 Environmental hazards: | |
| · Marine pollutant: | No |
| · 14.6 Special precautions for user | Not applicable. |
| · 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code | Not applicable. |
| · Transport/Additional information: | Not dangerous according to the above regulations |
| · UN "Model Regulation": | Void |

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product characteristics and shall not establish a legally valid contractual relationship

- * **Data compared to the previous version altered.**