

## Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 08.02.2024

version nr: 1

Revision: 08.02.2024

- **1.1 Product identifier**
- Trade name: **RADIFLAM® S FR 100 NT**
  
- Article number: 5000003598
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- Life cycle stages IS Use at industrial Sites
- **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 GB CLP regulation.
  
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Additional information:**
- Safety data sheet available on request.
- **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 Mixtures**

- **Description:**

Polyamide 6 flame retardant

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:**

37640-57-6 melamine cyanurate

2.5-10%

 STOT RE 2, H373

- **Additional information:**

Refer to Section 16 for the risk phrases concerning the above-mentioned hazards

The product contains substances well incorporated in the polymer and as such not bioavailable. The product may become dangerous only if pulverized or ingested; in this case follow the precautions taken for the pure substance.

### SECTION 4: First aid measures

- **4.1 Description of first aid measures**

- **General information:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

- **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:**

CO<sub>2</sub>, 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.

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#### 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:**  
Dispose contaminated material as waste according to section 13.  
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  
See Section 13 for disposal information.

#### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**  
In processing coloured materials, particular care must be exercised not to exceed recommended processing temperatures, as thermal decomposition may generate harmful products  
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
- **7.3 Specific end use(s)** No further relevant information available.

#### SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:** Not required.
- **8.2 Exposure controls**
- **Appropriate engineering controls** No further data; see Section 7
- **Individual protection measures, such as 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  
Keep away from foodstuffs, beverages and feed.  
Wash hands before breaks and at the end of work.
- **Respiratory protection:** Not required.
- **Hand protection**  
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

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- Synthetic rubber gloves
- **Penetration time of glove material** Not available
- **Eye/face protection** Safety glasses

### SECTION 9: Physical and chemical properties

#### · 9.1 Information on basic physical and chemical properties

##### · General Information

- **Physical state** Solid
- **Colour:** Whitish
- **Odour:** Odourless
- **Odour threshold:** Not determined.
- **Melting point/freezing point:** 220 ± 3 °C
- **Boiling point or initial boiling point and boiling range** Not applicable, it's a solid.
- **Flammability** Not determined.
- **Lower and upper explosion limit**
- **Lower:** Not determined.
- **Upper:** Not determined.
- **Flash point:** >400 °C
- **Auto-ignition temperature:** 440 °C
- **Decomposition temperature:** Not determined.
- **pH** Not applicable.
- **Viscosity:**
- **Kinematic viscosity** Not applicable.
- **Dynamic:** Not applicable.
- **Solubility**
- **water:** Insoluble
- **Partition coefficient n-octanol/water (log value)** Not applicable
- **Vapour pressure:** Not applicable.
- **Density and/or relative density**
- **Density at 20 °C:** 1.15 g/cm<sup>3</sup>
- **Relative density** Not determined.
- **Vapour density** Not applicable.

#### · 9.2 Other information

- **Appearance:**
- **Form:** Chips
- **Important information on protection of health and environment, and on safety.**
- **Ignition temperature:** Product is not self-igniting
- **Explosive properties:** Product is not explosive
- **Solvent content:**
- **Solids content:** 100.0 %
- **Change in condition**
- **Evaporation rate** Not applicable.
- **Information with regard to physical hazard classes**
- **Explosives** Void
- **Flammable gases** Void
- **Aerosols** Void
- **Oxidising gases** Void
- **Gases under pressure** Void
- **Flammable liquids** Void
- **Flammable solids** Void

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· Self-reactive substances and mixtures	Void
· Pyrophoric liquids	Void
· Pyrophoric solids	Void
· Self-heating substances and mixtures	Void
· Substances and mixtures, which emit flammable gases in contact with water	Void
· Oxidising liquids	Void
· Oxidising solids	Void
· Organic peroxides	Void
· Corrosive to metals	Void
· Desensitised explosives	Void

### SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **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 hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **Skin corrosion/irritation**  
Irritation could be caused by dust formed during product handling  
Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation**  
Irritation could be caused by dust formed during product handling  
Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **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.
- **11.2 Information on other hazards**
- **Endocrine disrupting properties**  
None of the ingredients is listed.

### SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** Product is not biodegradable

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- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties**  
The product does not contain substances with endocrine disrupting properties.
- **12.7 Other adverse effects**
- **Additional ecological information:**
- **General notes:**  
Not hazardous for water.  
Negative ecological effects are, according to the current state of knowledge, not expected.

### 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  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Not hazardous according to the above regulations

### SECTION 14: Transport information

- **14.1 UN number or ID 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 Maritime transport in bulk according to IMO instruments** 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**
- **Poisons Act**
- **Regulated explosives precursors**  
None of the ingredients is listed.
- **Regulated poisons**  
None of the ingredients is listed.

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- **Reportable explosives precursors**  
None of the ingredients is listed.
- **Reportable poisons**  
None of the ingredients is listed.
- **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

- **Relevant phrases**  
H373 May cause damage to organs through prolonged or repeated exposure.
- **Abbreviations and acronyms:**  
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

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