1 - Product and Supplier Identification

Product: TECHNYLSTAR A 205F NATURAL S

Supplier:
Name: Rhodia Poliamida e Especialidades Ltda
Address: Estrada Galvão Bueno, 5505 – Bastitini
          São Bernardo do Campo/SP
Phone: + 55 11 4358-7777
Fax: + 55 11 4358-7656

Manufacturer: Rhodia Poliamida e Especialidades Ltda.
Usina Têxtil de Santo André – UTSA

Address: Avenida dos Estados, 5852
          09290-520 – Santo André / SP
Phone: (0xx11) 4435-2000
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Emergency contact: Phone: + 55 11 4358-7614

2 - Composition and Information on Ingredients

>>>PREPARATION

chemical nature: Polyamide based product 6.6.
Components: Polyamide 6.6 (CAS: 32131-17-2)
It has lubricant additives.

Components or impurities that contribute to hazard: Does not possess components or impurities whose the concentrations be enough to cause risks to safety handling.
 Addition information: Different components are incorporated in mass of polymer.

3 - Hazards Identification:

MAJOR HAZARDS

Adverse human health effects
Acute toxicity: Contact with the molten product may cause thermal burn. May cause eyes and skin irritation by mechanical action.
Local effects: Does not present any particular hazard to the environment, since the recommendations of Section 13 (related to disposal and also considering the local norms for this case) are taken in consideration.

Environmental effects: Does not present any particular hazard to the environment, since the recommendations of Section 13 (related to disposal and also considering the local norms for this case) are taken in consideration.

Physical and chemical hazards
Fire and explosion: Combustible solid, melts with heat. Risk of propagation of fire through flammable currents.
Chemical product Classification: According to EC criteria this product is not classified as hazardous preparation.
This product is not classified as hazardous product according to ANTT-420/2004 (Agência Nacional de Transportes Terrestres – Brasil) criteria.
4  - First Aid Measures

Inhalation: Not specifically applied.

Skin contact: Not specifically applied. However, in case of fire, the molten product may cause thermal burn. In this case, wash thoroughly with plenty of water. DO NOT remove the clothes (risk of adherence to the skin). Seek medical assistance immediately.

Eye contact: First of all check if the victim is wearing contact lenses and in positive case remove them. Wash with plenty of clear water for at least 20 min, keeping the eyelids open. Use preferably an eyewash fountain. Seek medical care immediately, if possible taking the product label.

Ingestion: Do not induce vomiting. If patience is conscious, clean mouth with plenty of clean water. Seek medical assistance immediately taking the product label if possible.

- Actions to avoid: If the victim is unconscious do not offer anything to drink. Do not induce vomiting and do not let the victim without care.

Notes to physician: In case of contact with molten product, cool the product with water and never take it from skin. Emergency and medical treatment to overexposure is supportive and should be directed to the control of symptoms and the patient's clinical condition. Symptomatic treatment. There are no specific antidotes.

First aider protection: In rescue operations use self-contained breathing apparatus.

5  - Fire Fighting Measures

Extinguishing media

- Recommended: All extinguishing media may used: Water spray, foam, dry chemical powder and carbon dioxide (CO₂).

- Not recommended: None. Use extinguishing media appropriate for surrounding fire conditions.

Specific hazards: Combustible solid, melts with heat. Risk of fire propagation through flammable currents. May have liberation of harmful or toxic vapors.

Specific intervenient methods: In case of large fire in the proximity, cool with water spray or remove all containers exposed to heat. During pneumatic transport of product may occur formation of static electricity: provide electrical ground system to lines and equipments used in this operation.

Protection of emergency personnel: Complete protection against fire and self-contained breathing apparatus.

6  - Accidental Release Measures

Individual protection

- Minimum protection: Evacuate the area. Keep away all personnel not involved in the emergency procedure. Indicate danger to traffic and notify local competent authorities. Avoid contact of product with skin and eyes. Eliminate all fire and heat sources. Do not smoke and do not provoke sparks. Removal all incompatible materials. (See section 10).

- Removal of Ignition sources: Use impermeable boots, clothes and gloves and hermetic safety goggles (with indirect ventilation) to chemicals.

- Emergency measures: Prevent that the product disperses.
Environmental precautions: Prevent that the product disperses. If possible, stop the spillage, avoiding contact with eyes, skin and clothing. Prevent product or emergency-service waters from reaching waterways, drains, gutters or sewage galleries.

Clean-up procedures
- Interdiction: Do not use water without specific instruction.
- Recovery: Recover the recoverable product to an emergency container, which should be appropriately labeled and store until further recycling or elimination.
- Clean-up / decontamination: Collect the absorbed material in spare container. Collect the contaminated soil and material in a separate container.
- Disposal: Do not dispose as common garbage and do not discard in sewers. The final disposal must be followed by an expert and according to current environmental regulations. We recommend incineration in an approved facility.

Additional information: Attention when stepping the granules, risk of falling.

7 - Handling and Storage

HANDLING
Technical measures: In transport/transference pneumatic or mechanic, in presence of flammable products: Electrically ground the installations. Danger of formation of static electricity.

Precautions: Always use personal protective equipment in order to avoid contact with skin and mucous membranes.

Precautions to safe handling: Avoid overheat the product. Use impermeable boots, clothes and gloves and hermetic safety goggles (with indirect ventilation) to chemicals.

Safe handling advice: Always handle product under strict adherence to general industrial security and hygiene recommendations. Respect the procedures and orientations employ of product.

STORAGE
Storage conditions
- Recommendations: To guarantee the qualities and properties of product until the period determined on the product sheet, store away from any flame and in a place protected from humidity and bad weather.

Incompatible materials: Oxidizing materials.

Packaging materials
- Recommended: Bags of PET metallic with film internal or boxes of cardboard with internal plastic bag or big-bags with internal plastic bag.
- Not recommended: Recipients which may permit humidity penetration.

8 - Exposure Control / Personal protection
Technical measures: Product just as received from supplier does not need any specific or particular measures, but always respecting the safety rules and industrial hygiene. During transformation, capture vapors at emission point.
Control parameters:
- Threshold limit value (Brazil, Portaria MTb 3214/78, NR 15 – Annex 11): Not listed.
- Threshold values (EUA, ACGIH): Respirable particles: TLV/TWA: 3 mg/m³
  Inalable particles: TLV/TWA: 10 mg/m³
- Threshold values (EUA, NIOSH): Not listed.
- Threshold values (EUA, OSHA): Total dust: PEL/TWA: 15 mg/m³ (8 hours).
  Respirable dust: PEL/TWA: 5 mg/m³ (8 hours).

Personal Protective Equipment
- Respiratory protection: Not applicable.
- Hand protection: Impermeable protective gloves. For the specification of the protection
  gloves he/she should be considered, besides the characteristics of
  the product, the specificity of the task and of the atmosphere where is
  accomplished.
- Eye protection: Hermetic safety goggles (with indirect ventilation) to chemicals.
- Skin and body protection: Impermeable protective clothing and boots.
- Collective emergency equipment: Emergency shower and eye-wash fountain.

Hygiene procedures:
Clean clothes and shoes after use. General industrial hygiene
methods should be sufficient to reduce exposure to product. Do not
eat, drink or smoke when handling chemical products. Separate
ordinary clothes from working clothes.

9 - Physical and Chemical Properties

Aspects
- Physical state: Solid.
- Appearance: Granules.
- Dimension: Cylinder of 3,5 mm x 3 mm.

Color: According pigmentation.
Odor: Odorless.

pH: Not applicable (practically insoluble in water).

Characteristic temperatures
- Melting point: 250 -270 °C.
- Decomposition temperature: Over 350°C.

Flammability
- Flash point: Over 400°C. (closed cup)
- Auto-flammability temperature: Over 450°C. (Spontaneous auto-flammability temperature).

Oxidizing properties:
Non oxidizing material according to CE criteria.

Density
- Density of solid: 1,08 - 1,67 g/cm³

Solubility
- In water: Practically insoluble.
- In organic solvents: Insoluble in usual organic solvents.
10 - Stability and Reactivity

Stability: Stable at room temperature and under normal usage conditions.
Dangerous reactions: Unknown dangerous reactions in normal handling conditions.
- Materials to avoid: Oxidizing materials.
- Dangerous decomposition products: Under conditions of combustion or thermal decomposition (pyrosythesis), releases toxic gases: carbon oxides (CO + CO₂), nitrogen oxides, and hydrocyanic acid.

11 - Toxicological Information

Acute toxicity: The product, just like, does not present particular hazard.

Acute local effects:
- Skin contact: Polyamide 6.6: It may cause irritation by mechanical action.
- Eye contact: Polyamide 6.6: It may cause irritation by mechanical action.
- Inhalation: The product, just like, does not present particular hazard.
- Ingestion: Polyamide 6.6: Adverse effects to the health are not expected.

12 - Ecological Information

Volutility: Low.

Expected behavior of the product: Ultimate destination of product: Soil and sediments.

Biodegradability:
- Final aerobic biodegradability: No biodegradable. (internal evaluation).

Bioaccumulation:
- Bioconcentration factor: Not determined.

Ecotoxicity:
- Effects on aquatic organisms: Not determined.

Diverse harmful effects: Does not present potential risk to ozone layer.

13 - Disposal Considerations

Product: The treatment and disposal must be individually evaluated, case by case. Consult Rhodia.

Disposal of residues:
- Interdiction: Do not discharge residues in sewage systems or waterways.
- Decontamination / Clean-up: Recycle the product as much as possible. If it is necessary, for recycling, an operation of trituration, take the precautions to avoid the formation and dispersion of dust. Not recycled product must be incinerated at authorized facilities. Dispose according to applicable local regulations.
- Destruction / Elimination: Eliminate in authorized installation, according with effective environmental legislations and regulations.

Contaminated containers:
- Interdiction: Do not reuse package.
Destruction / Elimination: Eliminate in authorized installation, according with effective environmental legislations and regulations.

NOTE: We remind users that there may exist local relevant regulations relative to elimination practices.

14 - Transportation

Brazilian regulations

Resolução n.º 420 – (ANTT – Agência Nacional de Transporte Terrestre, 02/12/04) Brasil:

Product is not squared in the current resolution about transport of hazardous products.

International legislation

Road (RID/ADR):

Not regulated.

Nautical (code IMO/IMDG):

Not regulated.

Aerial (OACI / IATA – DGR):

Not regulated.

NOTE: The regulatory prescriptions above are effective at the moment of this file update. However, due to frequent alterations of the regulation relative to the transportation of dangerous substances we suggest that users confirm their status with their local commercial agencies.

15 - Regulatory Information

EC regulations:

Mandatory labeling (self classification) for dangerous substances: No applicable.

NOTE: The regulatory information contained in this section refers exclusively to the main prescriptions specifically applicable to the product addressed by the corresponding MSDS. All users should be aware of the possible existence of other dispositions that might complement these prescriptions. We suggest that every applicable national and international disposition be taken into account for this purpose.

16 - Additional Information

Types of usage

- Recommendations:

Used in production of engineering plastics. For additional informations consult actual version of product’s Technical Data Sheet (Rhodia Product Data Sheet).

Polyamide 6.6: Listed on TSCA inventory.

Polyamide 6.6: Listed on AICS inventory.

Polyamide 6.6: Listed on DSL inventory.

Polyamide 6.6: Listed on IECSC inventory.

Polyamide 6.6: Listed on ENCS inventory.

Polyamide 6.6: Listed on KECI inventory.

Polyamide 6.6: Listed on NZloc (New Zealand) inventory.

Polyamide 6.6: Listed on PICCS inventory.

Update: See version and date on header.

Bibliographic references:

www.rhodia.rp/info

NTP Chemical Repository
New Jersey Department of Health and Senior Services.

*Limites de Exposição (TLVs) para Substâncias Químicas e Agentes Físicos & Índices Biológicos de Exposição (BEIs) – ACGIH-2003.*


*Normas Regulamentadoras – NR15 - Portaria 3214 de 08/06/1978 - MTE.*


https://webinsight.arielresearch.com/admin/activate.aspx

EU. Directive 67/548/EEC on the classification, packaging, and labelling of dangerous substances, Annex I, as amended thru the 31st ATP.

**DISCLAIMER:** The present safety data sheet is intended for use in conjunction with its corresponding product's technical data sheet, which it does not substitute in any aspect. All information published in the technical data sheet is selected in good faith and represents our current and updated knowledge of the product in question. All users should be aware of possible risks involved in using chemical products for purposes other than those for which it is intended. The present SDS does not exempt users from observing the set of regulatory texts pertinent to their activities. It is also their responsibility to comply with the recommendations regarding each particular product's usage. The regulatory provisions mentioned above aim exclusively at assisting the user in meeting all applicable requirements regarding the use of dangerous products. These procedures should not be regarded as the only recommended ones and therefore do not exempt the user from conforming to legal obligations relative to storage and usage of dangerous products other than the ones mentioned herein.