

Safety Data Sheet

GHS_CHN/000000019610530/1
 According to GB/T 16483 and GB/T 17519

SECTION 1. Chemical product and company identification

1.1. Product identifier

Product name **APINAT DP2971/E/FC/FL**
APINAT DP2971/E/FC/FL
 Chemical name and synonym **TPE-E BIO**

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

Intended use **Biodegradable thermoplastic elastomer.**

| Identified Uses | Industrial | Professional | Consumer |
|--------------------|------------|--------------|----------|
| Use of the product | ✓ | - | - |

1.3. Details of the supplier of the safety data sheet

Name **API S.P.A.**
 Full address **Via Dante Alighieri, 27**
 District and Country **36065 Mussolente (VI)**
ITALY
 Tel. **+39.0424.579711**
 Fax **+39.0424.579800**

e-mail address of the competent person responsible for the Safety Data Sheet **msds@apiplastic.com**

1.4. Emergency telephone number

For urgent inquiries refer to **National Poisons Information Service (Edinburgh) 844 892 0111**
National Poisons Information Service (Newcastle Unit) 191 2606182/191 2606180
National Poisons Information Service (Birmingham Unit) 844 892 0111

SECTION 2. Hazards overview

2.1. Emergency overview

granule;various
 No hazard known

2.2. Classification

The product is not classified as hazardous pursuant to the provisions set forth in GB 30000.02 : GB 30000.29.

2.3. Label elements

Hazard pictograms: --
 Signal words: --
 Hazard statements: --
 Precautionary statements: --

2.4. Physical properties hazards

No hazard known

2.5. Health hazards

SECTION 2. Hazards overview ... / >>

According to currently available data, this product has not yet produced health damages. Anyway, it must be handled according to good industrial practices.

2.6. Environment hazards

The product is not classified as hazardous for the environment according to GB 30000.28 and GB 30000.29 criteria.

2.7. Other hazards

No other hazards known.

SECTION 3. Composition/information on ingredients**3.1. Substances**

Information not relevant

3.2. Mixtures

The product does not contain substances classified as being hazardous to human health or the environment pursuant to the provisions set forth in GB 30000.02 : GB 30000.29.

SECTION 4. First aid measures**4.1. Description of first aid measures**

Not specifically necessary. Observance of good industrial hygiene is recommended.

4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available

SECTION 5. Firefighting measures**5.1. Extinguishing media****SUITABLE EXTINGUISHING EQUIPMENT**

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

5.2. Special hazards arising from the substance or mixture**HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE**

Do not breathe combustion products.

5.3. Advice for firefighters**GENERAL INFORMATION**

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures**6.1. Protective measures**

Use breathing equipment if fumes or powders are released into the air. These indications apply for both processing staff and those involved in emergency procedures.

SECTION 6. Accidental release measures ... / >>

6.2. Environmental protection measures

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods to contain and eliminate the leaked chemical products

Confine using earth or inert material. Collect as much material as possible and eliminate the rest using jets of water. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage

7.1. Handling

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use.

7.2. Storage

Keep the product in clearly labelled containers. Keep containers away from any incompatible materials, see section 10 for details.

Verify that the storage meets the applicable standards: GB 15603, GB 17914, GB 17195 and/or GB 17916.

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Information not available

8.2. Exposure controls

Comply with the safety measures usually applied when handling chemical substances.

HAND PROTECTION

None required.

SKIN PROTECTION

None required.

EYE PROTECTION

None required.

RESPIRATORY PROTECTION

None required, unless indicated otherwise in the chemical risk assessment.

ENVIRONMENTAL EXPOSURE CONTROLS

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

| Properties | Value | Information |
|----------------------------------|----------------|-------------|
| Appearance | granule | |
| Colour | various | |
| Odour | characteristic | |
| Odour threshold | Not available | |
| pH | Not applicable | |
| Melting point / freezing point | Not available | |
| Initial boiling point | Not applicable | |
| Boiling range | Not available | |
| Flash point | Not applicable | |
| Evaporation Rate | Not applicable | |
| Flammability of solids and gases | not flammable | |
| Lower inflammability limit | Not available | |
| Upper inflammability limit | Not available | |
| Lower explosive limit | Not available | |
| Upper explosive limit | Not available | |

SECTION 9. Physical and chemical properties ... / >>

| | |
|--|--|
| Vapour pressure | Not available |
| Vapour density | Not available |
| Relative density | 0,6 - 1,6 |
| Solubility | insoluble in water |
| Partition coefficient: n-octanol/water | Not available |
| Auto-ignition temperature | Not available |
| Decomposition temperature | >230°C |
| Viscosity | Not applicable |
| Explosive properties | not applicable (Recommendations on the Transport of Dangerous Goods) |
| Oxidising properties | not applicable (Reg. 1272/2008, 2.14.4.1) |

9.2. Other information

| | |
|-----|---|
| TDS | These values should not be interpreted as technical data. For the processing conditions please refer to product data sheet. |
|-----|---|

SECTION 10. Stability and reactivity**10.1. Reactivity**

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

10.5. Incompatible materials

Information not available

10.6. Hazardous decomposition products

Information not available

SECTION 11. Toxicological information

According to currently available data, this product has not yet produced health damages. Anyway, it must be handled according to good industrial practices.

11.1. Information on toxicological effects

Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure

Information not available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Information not available

Interactive effects

Information not available

ACUTE TOXICITY

| | |
|----------------------------------|---|
| ATE (Inhalation) of the mixture: | Not classified (no significant component) |
| ATE (Oral) of the mixture: | Not classified (no significant component) |
| ATE (Dermal) of the mixture: | Not classified (no significant component) |

SECTION 11. Toxicological information ... / >>SKIN CORROSION / IRRITATION

Does not meet the classification criteria for this hazard class

SERIOUS EYE DAMAGE / IRRITATION

Does not meet the classification criteria for this hazard class

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

SECTION 12. Ecological information

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

12.1. Toxicity

Limestone

LC50 - for Fish > 10000 mg/l/96h *Oncorhynchus mykiss*

EC50 - for Crustacea > 1000 mg/l/48h *Daphnia magna*

EC50 - for Algae / Aquatic Plants > 200 mg/l/72h *Desmodesmus subspicatus*

Poly lactide resin

EC50 - for Algae / Aquatic Plants > 1100 mg/l/72h

12.2. Persistence and degradability

Limestone

Solubility in water 1.3 mg/l

Poly lactide resin
Entirely degradable

Aliphatic polyester

SECTION 12. Ecological information ... / >>

Rapidly degradable

12.3. Bioaccumulative potential

Information not available

12.4. Mobility in soil

Information not available

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage \geq than 0,1%.

12.6. Other adverse effects

Information not available

SECTION 13. Disposal**13.1. Waste treatment methods**

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Solid residues may be suitable for disposal in an authorised landfill site.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

14.1. UN number

Not applicable

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

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 and the IBC Code

Information not relevant

SECTION 15. Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None

Substances subject to the Rotterdam Convention:

None

Substances subject to the Stockholm Convention:

None

The following laws and regulations lay down provisions in terms of chemicals safety use, storage, transportation, loading/unloading, classification as well as symbol:

"Law of the People's Republic of China on Work Safety"

"Law of the People's Republic of China on the Prevention and Treatment of Occupational Diseases"

"Law of the People's Republic of China on environmental protection"

"The Measures for the Administration of Registration of Hazardous Chemicals"

"Regulations on Safe Management of Hazardous Chemicals" (2011).

Chinese existing chemicals inventory (IECSC): All components are listed or are exempt from Inventory of Existing Chemical Substances in China.

SECTION 16. Other information**LEGEND:**

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation.

GENERAL BIBLIOGRAPHY:

- GHS rev. 4
- GB/T 16483-2008: Safety Data Sheet for Chemical Products Content and Order of Sections
- GB/T 17519-2013: Guidance on the compilation of safety data sheet for chemical products
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh - Registry of Toxic Effects of Chemical Substances
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product. This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

CALCULATION METHODS FOR CLASSIFICATION

Product classification derives from criteria established by the GB 30000.02 : GB 30000.29, Part 2, unless determined otherwise in Section 11 ad 12. The data for evaluation of chemical-physical properties are reported in section 9.