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Safety Data Sheet based on Regulation (EC) No 1907/2006 (REACH)

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

1.1. Product identifier

Trade Name : Pectin (E 440)

Product code

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

Relevant identified uses

Use of the substance/mixture : For industrial use, used for food products.

Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

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1.4. Emergency telephone number

Not necessary.

SECTION 2: Hazards Identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]:

Not classified

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

No labelling applicable

2.3. Other hazards

| Other hazards which do not result in | : | In the event of contact with the skin: slight irritation possible following prolonged contact. If |
|--------------------------------------|---|---|
| classification | | large quantities of dust are inhaled, possible irritation of breathing passages with coughing. |
| | | In the event of contact with the eyes: irritation, in particular in the event of prolonged contact. |
| | | Risk of dust explosion. May form exposable dust-air mixture if dispersed |





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SECTION 3 : Composition/information on Ingredients

3.1. Substances

| Description | : | Pectins are made from carefully selected raw materials. | |
|-----------------|---|---|--|
| CAS number | : | 9000-69-5 | |
| Major component | : | Pectin (if necessary standardized) | |
| EINECS number | : | 232-553-0 | |
| | | | |

SECTION 4: First aid measures

4.1. Description of first aid measures

| First-aid measures general | : | If you feel unwell, seek medical advice (show the label where possible). |
|---------------------------------------|---|--|
| First-aid measures after inhalation | : | In the event of inhalation of dust, remove the person to fresh air, keep him warm and at rest. Consult a doctor if respiratory symptoms appear or persist. |
| First-aid measures after skin contact | : | Wash with plenty of soap and water. Seek medical advice if an irritation appears. |
| First-aid measures after eye contact | - | Rinse carefully with plenty of water with the eyelids held wide open. Seek an eye specialist's advice if an irritation appears. |
| First-aid measures after ingestion | : | No immediate treatment necessary. |
| | | |

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

| Chronic symptoms : | | See Sub Heading 2.1/2.3. |
|--------------------|--|--------------------------|
|--------------------|--|--------------------------|

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

No information / data available.

SECTION 5: Firefighting measures

5.1. Extinguishing media

| Suitable extinguishing media | : | Water spray with additives, chemical powder, chemical foam, carbon dioxide extinguisher. | |
|--------------------------------|---|--|--|
| Unsuitable extinguishing media | : | Solid water jet. | |
| | | Avoid high pressure media which could cause the formation of a potentially exposable dust-air mixture. | |

5.2. Special hazards arising from the substance or mixture

| Explosion hazard | : | Suspension of the dust in the air could produce an explosive atmosphere. |
|---|---|--|
| Hazardous decomposition products in the event of fire | : | In case of fire or combustion, the product may release dangerous decomposition products such as carbon monoxide and dioxide. |

5.3. Advice for firefighters

| Protection in the event of a fire | : | Do not enter fire area without proper protective equipment, including respiratory protection. | |
|-----------------------------------|---|---|--|
| Other information | : | Packaging exposed to heat or open flames should be cooled with a fine water spray. Prevent fire-fighting water from entering wastewater. | |





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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

| Protective equipment | : | Personal protection: see section 8. |
|----------------------------------|---|---|
| Emergency procedures | : | Avoid contact with eyes and skin. Avoid breathing dust. |
| Measures in case of dust release | : | Do not allow the material to become suspended in the air. |
| For emergency responders | | |
| Protective equipment | : | Personal protection: see section 8. |

| Emergency procedures | : | Avoid contact with eyes and skin. Avoid breathing dust. |
|----------------------|---|---|
| | | |

6.2. Environmental precautions

Avoid release into natural bodies of water, sewage water or the soil. Contain the leak or spill from spreading if it can be done without any danger. Do not discharge to surface water or to sewers. Inform local authorities if significant leaks cannot be contained.

6.3. Methods and material for containment and cleaning up

| For containment : | Suitable advice concerning the containment of a spill; the following containment methods can be envisioned: | | |
|---------------------------|---|--|--|
| | To limit the production of dust or vapor: cover the product with absorbent granules (inert, non-flammable and non-combustible). | | |
| | In case of large spreadings: install a protective enclosure, cover the sewers. Collect the absorbent/product mixture and put it in compatible packagings for subsequent elimination in accordance with the regulations in force. | | |
| | In case of large spreading, inform the competent authorities when the situation cannot be rapidly and effectively controlled. | | |
| | The absorbent/product mixture shall be handled with the same precautions as for the product itself. | | |
| Methods for cleaning up : | To clean: wash the contaminated area making sure not to contaminate the natural environment. During the cleaning operations, continue to abide by the handling precautions | | |

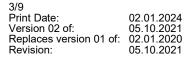
6.4. Reference to other sections

For information on handling, see section 7. For information on personal protective equipment, see section 8. For information on disposal, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

| Additional hazards when processed | : | Ensure adequate ventilation. |
|-----------------------------------|---|--|
| Precautions for safe handling | : | Avoid contact with skin and eyes. Avoid breathing dust. Avoid raising powdered materials into airborne dust. |
| Hygiene measures | : | Use personal protective equipment (appropriate gloves, splash goggles, suitable work clothing) in accordance with industrial hygiene best practices (see section 8). |







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7.2. Conditions for safe storage, including any incompatibilities

| Storage conditions | | Conditions for storing the product in safety: Store in its original packaging, closed and in a dry and well ventilated area. Avoid extreme temperatures (heat and cold). | | | |
|-----------------------|-------------|---|--|--|--|
| | | For more details on storage conditions to ensure product quality: Refer to the data sheet. Combustible dust. Make sure that the storage conditions are appropriate for this risk and for the applicable regulations covering the prevention of explosive atmospheres. | | | |
| Incompatible products | : Oxidizing | agent. Strong acids. Strong bases. | | | |
| Spacific and usa(s) | | | | | |

7.3. Specific end use(s)

No data / information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

| Hand protection | : | Wear protective gloves in case of permanent contact. |
|--------------------------|---|---|
| Eye and face protection | | This product does not cause significant eye irritation or eye toxicity. No special protection is required. If there is a significant potential for eye contact, wear protective goggles and have eyewash available. |
| Skin and body protection | | Although this product does not cause significant skin problems, skin contamination should be minimized by following good industry practice. |
| Respiratory protection | | In case of high exposure to airborne dust, wear a personal respirator in accordance with national legislation. |

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| Physical state | : | Solid |
|---------------------------|---|---|
| Appearance | : | Powdery substance |
| Colour | : | Light beige |
| Odour | : | Neutral |
| Odour threshold | : | No data available |
| Melting point | : | No data available |
| Freezing point | : | No data available |
| Boiling point | : | No data available |
| Flammability (solid, gas) | : | No data available |
| Explosive limits | : | By ignition of a dust cloud pectins can cause a weak dust explosion (KSt < 200 bar.m/s) |
| | | |





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| Flash point | : | Not applicable |
|---|---|---|
| Auto-ignition temperature | : | Not applicable |
| Decomposition temperature | : | No data available |
| рН | : | < 4.7 (2.5% solution, 20 °C) |
| Solubility | : | Soluble in hot water |
| Partition coefficient n-octanol/water (log value) | : | No data available |
| Vapor pressure | : | No data available |
| Density or relative density | : | No data available |
| Relative vapor density at 20 °C | : | No data available |
| Particle characteristic | : | Typically min. 90 % < 500 μ m (not specified) |

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity relating to the substances, containers and contaminants to which the substance or mixture may be exposed during their transport, storage and use: No data available.

10.2. Chemical stability

The product is stable in normal conditions of use. Stability of the substance or mixture under normal and predictable storage and handling room conditions in terms of temperature and pressure: Chemically stable under standard room conditions (room temperature).

10.3. Possibility of hazardous reactions

Reaction or polymerisation of the substance or mixture releasing excessive heat or pressure or generating other dangerous conditions: This product will not polymerise by releasing excessive heat or pressure or by generating other dangerous conditions. (See section 10.1 for reactivity which can generate risks by taking into account the substances, containers and contaminants to which the substance or mixture may be exposed during their transport, storage and use.).

10.4. Conditions to avoid

Do not allow the dust to become suspended in the air; it could produce an explosive atmosphere. Listing of conditions such as temperature, pressure, light, shocks, electrostatic discharges, vibrations or other physical stresses which may lead to a dangerous situation: According to our knowledge, temperature, pressure, light, shocks, etc. do not lead to a dangerous situation. Keep away from open flames, hot surfaces and ignition sources.

10.5. Incompatible materials

Families of substances or mixtures, or specific substances, such as water, air, acids, bases, oxidising agents, with which the substance or mixture may react by generating a dangerous situation: Strong oxidising agents, strong acids and strong bases.





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10.6. Hazardous decomposition products

Known dangerous decomposition products and products, which may be reasonably predictable as such following use, storage, pouring and heating: This product does not decompose under normal conditions. Decomposition products in case of fire: consult section 5.2.

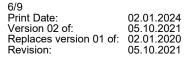
SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in regulation (EC) No 1272/2008

| Acute toxicity | : | Not classified |
|--|---|---|
| | | To the best of our knowledge (and taking into account its composition), this product is not classified in this hazard category. |
| Skin corrosion/irritation | : | Not classified |
| | | To the best of our knowledge (and taking into account its composition), this product is not classified in this hazard category. |
| Serious eye damage/irritation | : | Not classified |
| | | To the best of our knowledge (and taking into account its composition), this product is not classified in this hazard category. |
| Respiratory or skin sensitization | : | In rare cases, allergic reactions have been caused by prolonged or repeated contact with pectin. |
| Germ cell mutagenicity | : | Not classified |
| | | To the best of our knowledge (and taking into account its composition), this product is not classified in this hazard category. |
| Carcinogenicity | : | Not classified |
| | | To the best of our knowledge (and taking into account its composition), this product is not classified in this hazard category. |
| Reproductive toxicity | : | Not classified |
| | | To the best of our knowledge (and taking into account its composition), this product is not classified in this hazard category. |
| Specific target organ toxicity (single exposure) | : | Not classified |
| | | To the best of our knowledge (and taking into account its composition), this product is not classified in this hazard category. |
| Specific target organ toxicity (repeated | : | Not classified |
| exposure) | | To the best of our knowledge (and taking into account its composition), this product is not classified in this hazard category. |
| Aspiration hazard | : | Not classified |
| | | To the best of our knowledge (and taking into account its composition), this product is not classified in this hazard category. |

Information on the likely routes of exposure

| Dermal contact | : | In the event of contact with the skin: slight irritation possible following prolonged contact. |
|----------------|---|--|
| Eyes contact | : | Contact with the eyes: slight irritation is possible, particularly in the event of prolonged contact |







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Inhalation : If large quantities of dust are inhaled, possible irritation of breathing passages with coughing.

Ingestion

: No data available.

2

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general

To the best of our knowledge, no study has been carried out on this natural extract for the moment.

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of in accordance with the local/national safety regulations in force.

Waste disposal recommendations : They must be di

: They must be disposed of in accordance with the local regulations in force.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number or ID number

Not regulated for transport





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| 14.2. UN proper shipping name | | | |
|---|---|--|--|
| Proper Shipping Name (ADR) | : Not applicable | | |
| Proper Shipping Name (IMDG) | : Not applicable | | |
| Proper Shipping Name (IATA) | : Not applicable | | |
| 14.3. Transport hazard class(es) | | | |
| ADR | | | |
| Transport hazard class(es) (ADR) | : Not applicable | | |
| IMDG | | | |
| Transport hazard class(es) (IMDG) | : Not applicable | | |
| ΙΑΤΑ | | | |
| Transport hazard class(es) (IATA) | : Not applicable | | |
| 14.4. Packing group | | | |
| Packing group (ADR) | : Not applicable | | |
| Packing group (IMDG) | : Not applicable | | |
| Packing group (IATA) | : Not applicable | | |
| 14.5. Environmental hazards | | | |
| Dangerous for the environment | : No | | |
| Marine pollutant | : No | | |
| Other information | : No supplementary information available | | |
| 14.6. Special precautions for user | | | |
| Special transport precautions | : For information on handling, see section 7. For information on personal protective equipment, see section 8. For information on disposal, see section 13. | | |
| 14.7. Maritime transport in bulk according to IMO instruments | | | |
| IBC code | : No available data for bulk transport in accordance with annex II of the MARPOL 73/78 Convention and the IBC Code; if necessary, consult the supplier. | | |

SECTION 15: Regulatory information

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

National regulations

Ensure all national/local regulations are observed.

15.2. Chemical safety assessment

No data available.





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SECTION 16: Other information

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