1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

<table>
<thead>
<tr>
<th>Substance name</th>
<th>CAS No.</th>
<th>EINECS No.</th>
<th>Registration number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rapeseed meal</td>
<td>Unassigned</td>
<td>Unassigned</td>
<td>Unassigned - Registration under REACH not required</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Uses</th>
<th>Substance/mixture/ article</th>
<th>Industrial user/professional user/consumer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ingredient in compound feed</td>
<td>Substance</td>
<td>Professional users/Industrial users</td>
</tr>
</tbody>
</table>

The substance is not classified as hazardous under Regulation on Classification, Labelling and Packaging (CLP) EC 1272/2008, therefore there are not uses advised against.

1.3 Details of the supplier of the safety data sheet

- PREOL a.s.
  Terezínská 1214
  410 02 Lovosice
  Czech Republic
  Tel: +420 416 564 830
  Fax: +420 416 562 087
  Contact person (MSDS): monika.neveceralova@preol.cz

1.4 Emergency telephone number

- Toxicological Information Centre (TIC – Czech Republic)
  Na bojiští 1,
  12808 Praha 2;
  Tel. (24h): +420 224 91 92 93; +420 224 91 54 02; +420 224 91 45 75; +420 224 97 11 11

- Transport Information and Emergency System (TRINS - Czech Republic)
  It provides continuous training and practical assistance in dealing with emergencies associated with the transport or storage of hazardous chemicals in the Czech Republic. The assistance is provided via fire operational brigade (HZS) centers or via the national coordination center of Chemopetrol, a.s. in Litvinov.

  Contact telephone TRINS: + 4 2 0  4 7 6 7 0 9 8 2 6
2. Hazards identification

2.1 Classification of the substance or mixture

Classification under Regulation (EC) No 1272/2008 (CLP)

No classification

Most important adverse physicochemical, human health and environmental effects

Substance is not classified as hazardous. See also section 2.3.

2.2 Label elements

Label elements according to Regulation (EC) No. 1272/2008 (CLP)

Not relevant, substance is not classified as hazardous.

2.3 Other hazards

PBT (Persistent, Bioaccumulative and Toxic) or vPvB (very Persistent and very Bioaccumulative) criteria

Substance does not meet the criteria to be considered PBT neither vPvB

Other hazards

- Eye contact: May cause irritation of the affected eye
- Skin contact: Prolonged or repeated contact is not likely to produce significant skin irritation.
- Inhalation: Negligible effects unless dispersion of dust or burning smoke in the event of ignition.
  If there is dust or smoke inhalation, remove patient to fresh air.
- Ingestion: No health risks arise from accidental ingestion

3. Composition/information on ingredients

3.1 Substances

Chemical identity of the main constituent of the substance

Main constituent

<table>
<thead>
<tr>
<th>EC name:</th>
<th>Rapeseed meal</th>
</tr>
</thead>
<tbody>
<tr>
<td>EC number:</td>
<td>Unassigned</td>
</tr>
<tr>
<td>CAS number (EC inventory):</td>
<td>Unassigned</td>
</tr>
<tr>
<td>CAS name:</td>
<td>UVCB substance, for CAS name information it is possible to refer to the different composition substances.</td>
</tr>
<tr>
<td>IUPAC name:</td>
<td>UVCB substance, no IUPAC name available.</td>
</tr>
</tbody>
</table>
3.2 Mixtures
Not relevant as substance is not a mixture.

4. First aid measures

4.1 Description of first aid measures

First aid instructions

GENERAL ADVICE
In case of accident or if you feel unwell, seek medical advice immediately (identify the substance to the medical staff by showing the label when possible).

EYES
Irrigate eyes with a heavy stream of water for at least 15 to 20 minutes.

SKIN
Wash with soap and plenty of water.

INHALATION
In case of dust or smoke exposure, remove casualty from exposure ensuring one's own safety whilst doing so; seek medical attention if symptoms persist.

INGESTION
Do not induce vomiting without medical advice. Wash out mouth with water. If conscious, give half a liter of water to drink. If gastro-intestinal symptoms develop, consult medical personnel. (Never give anything by mouth to an unconscious person)

4.2 Most important symptoms and effects, both acute and delayed

Most important symptoms and effects.
See 2.3

4.3 Indication of any immediate medical attention and special treatment needed

Indication of any immediate medical attention and special treatment needed
Not relevant for this substance.
5. Fire fighting measures

5.1 Extinguishing media

Extinguishing media

Appropriate extinguishing media.
Dry chemical powder, alcohol resistant foam, CO₂, water spray (fog).

5.2 Special hazards arising from the substance or mixture

Special hazards

In combustion emits toxic fumes of carbon dioxide / carbon monoxide. Combustion of rapeseed meal generates irritating smoke. Diffusion of fines and dust of rapeseed meal in the air can explode.

5.3 Advice for firefighters

Advice for firefighters

Protective equipment for Fire-fighters:
Use self-contained breathing apparatus to avoid exposure to smoke and vapour. Wear fire-resistant clothing to prevent contact with skin and eyes.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel

Personal precautions, protective equipment and emergency procedures.
Wear protective gloves and goggles when manipulating rape meal. Eliminate all sources of ignition.

6.1.2 For emergency responders

Advice for firefighters
Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

6.2 Environmental precautions

Environmental precautions
Do not discharge into drains, sewerage or waters. For contaminated material disposal contact a specialized company.

6.3 Methods and material for containment and cleaning up

6.3.1 Spill containment
Stop the leak of material. Remove all ignition sources near the material leaked. Collect the leaked material reducing the area as much as possible by using shovels, brooms or bulldozers for vast leaks.
6.3.2 Spill clean-up
Pick up small spills with shovels and brooms and dispose properly.
Recover large spills for salvage or disposal by authorized personnel.

6.3.3 Other information
Not relevant for this substance

6.4 Reference to other sections
Reference to other sections
See also sections 8 and 13

7. Handling and storage

7.1 Precautions for safe handling
Note: Rapeseed Meal is not classified as hazardous according to CLP Regulation (EC) No. 1272/2008. Specific Risk Management Measures are therefore not required. Nevertheless, the exposure of workers during and after normal operations should be minimized by the use of good industrial hygiene practice.

7.1.1 Recommendations for safe handling
Use gloves and goggles when handling.

7.1.2 Occupational hygiene advice.
Do not eat, drink or smoke in work areas; wash hands after use; and remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for safe storage, including any incompatibilities
Safe storage conditions
Dry storage is recommended to prevent microbiological deterioration (maximum humidity 14%). The storage rooms should be protected against pests, birds and rodents to prevent contamination (e.g. salmonellae).
Keep away from oxidizing agents, excessive heat, and ignition sources.
The dispersion of dust during loading/unloading should be kept as low as possible.

7.3 Specific end use(s)
Reference to other sections
See section 1.2
8. Exposure controls/personal protection

8.1 Control parameters

**Control parameters**
Exposure limits are not established.

8.2 Exposure controls

8.2.1 Appropriate engineering controls
No relevant engineering controls.

8.2.2 Individual protection measures

**RESPIRATORY PROTECTION:**
If dust or burning smoke is generated, wear an approved organic dust/smoke respirator.

**PROTECTIVE CLOTHING:**
Safety glasses, goggles, or face shield recommended to protect eyes when handling. Safety rubber gloves are recommended to prevent skin contact.

**OTHER PROTECTIVE MEASURES:**
Employees must practice good personal hygiene, washing exposed areas of skin several times daily and laundering contaminated clothing before re-use.

8.2.3 Environmental exposure controls
Prevent product from entering drains. Is not allowed to pour any amount of the product to the sewerage or water pipes.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

**Overview of physicochemical properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Finely grained brown solid</td>
</tr>
<tr>
<td>Odour</td>
<td>Mild. Characteristic of feeding stuffs.</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>N/A</td>
</tr>
<tr>
<td>pH</td>
<td>N/A</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>N/A</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>N/A</td>
</tr>
<tr>
<td>Flash point</td>
<td>≈ 465°C</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>N/A</td>
</tr>
</tbody>
</table>
Overview of physicochemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability (solid, gas)</td>
<td>Solid flammable</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>Lower explosive limit: 76 g/m³</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>N/A</td>
</tr>
<tr>
<td>Vapour density</td>
<td>N/A</td>
</tr>
<tr>
<td>Relative density</td>
<td>≈ 0.600 g/cm³ at 20°C</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Insoluble in water</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>≈ 505°C</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>N/A</td>
</tr>
<tr>
<td>Viscosity</td>
<td>N/A</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not explosive</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>Not oxidizing</td>
</tr>
</tbody>
</table>

9.2 Other information

Other information

N/A

10. Stability and reactivity

10.1 Reactivity

Reactivity hazards

This product is stable and hazardous reaction will not occur under appropriate storage conditions.

10.2 Chemical stability

Chemical stability

The substance is stable under normal ambient and hazardous reaction will not occur under appropriate storage conditions.

10.3 Possibility of hazardous reactions

Possibility of hazardous reactions

Large amounts of finely dispersed rapeseed meal dust in air might explode.
10.4 Conditions to avoid

Conditions to avoid

Protect against pests, birds and rodents to prevent microbiological contamination (e.g. salmonellae). Keep away from excessive heat and ignition sources.

10.5 Incompatible materials

Incompatible materials

Strong oxidizing agents. Strong bases.

10.6 Hazardous decomposition products

Hazardous decomposition products

Combustion produces carbon monoxide, carbon dioxide along with thick smoke.

11. Toxicological information

11.1 Information on toxicological effects

<table>
<thead>
<tr>
<th>Hazard class</th>
<th>Result</th>
<th>Test method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity</td>
<td>Oral: Non toxic</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dermal: Non toxic</td>
<td></td>
</tr>
<tr>
<td>Skin corrosion/irritation;</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Serious eye damage/irritation;</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Sensitisation;</td>
<td>Respiratory sensitisation N/A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Skin sensitisation N/A</td>
<td></td>
</tr>
<tr>
<td>Germ cell mutagenicity;</td>
<td>Reverse gene mutation assay N/A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>In vitro cytogenicity test N/A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>In vitro mammalian cell mutation test N/A</td>
<td></td>
</tr>
<tr>
<td>Carcinogenicity;</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Reproductive toxicity;</td>
<td>Developmental effects N/A</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fertility effects</td>
<td></td>
</tr>
<tr>
<td>STOT-single exposure;</td>
<td>No information No information</td>
<td></td>
</tr>
<tr>
<td>STOT-repeated exposure;</td>
<td>No information</td>
<td></td>
</tr>
<tr>
<td>Aspiration hazard.</td>
<td>No information</td>
<td></td>
</tr>
</tbody>
</table>
CMR (Carcinogenic, Mutagenic and Repro-toxic) properties assessment
None

The effects of the substance via each possible route of exposure
See section 2 for effects of the substance.

Potential adverse health effects and symptoms
See section 2 for effects of the substance.

Information on whether delayed or immediate effects
See section 2 for effects of the substance.

Interactions
None expected.

Other information
See section 2 for effects of the substance

12. Ecological information

12.1 Toxicity
Unassigned - material is not classified as toxic.

12.2 Persistence and degradability
Product with high biodegradability

12.3 Bioaccumulative potential
Unassigned - not hazardous product

12.4 Mobility in soil
Unassigned - not hazardous product

12.5 Results of PBT and vPvB assessment
Substance is not considered PBT either vPvB.

12.6 Other adverse effects
N/A
13. Disposal considerations

13.1 Waste treatment methods

Waste treatment methods
Disposal of wastes and residues must be in accordance with applicable waste legislation (185/2001 Coll. Act on Waste). Wastes can be disposed of only by authorized personnel. It is not allowed pouring any amount of the substance into the sewerage network and waters. In case of contaminated rape meal provide the material to a specialized company for disposal.

14. Transport information

Transport information for Rape meal

<table>
<thead>
<tr>
<th>Land transport (ADR/RID/)</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN number</td>
</tr>
<tr>
<td>Class</td>
</tr>
<tr>
<td>Classification code</td>
</tr>
<tr>
<td>Packaging group</td>
</tr>
<tr>
<td>Labels</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Inland waterway transport (AND(R))</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN number</td>
</tr>
<tr>
<td>Class</td>
</tr>
<tr>
<td>Classification code</td>
</tr>
<tr>
<td>Packaging group</td>
</tr>
<tr>
<td>Labels</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Marine transport (IMDG)</th>
</tr>
</thead>
<tbody>
<tr>
<td>UN number</td>
</tr>
<tr>
<td>Proper shipping name and description</td>
</tr>
<tr>
<td>Chemical name</td>
</tr>
<tr>
<td>Class</td>
</tr>
<tr>
<td>Packaging group</td>
</tr>
<tr>
<td>EmS number</td>
</tr>
<tr>
<td>Labels</td>
</tr>
<tr>
<td>Marine pollutant</td>
</tr>
<tr>
<td>-----------------------</td>
</tr>
<tr>
<td>Air transport ICAO/IATA</td>
</tr>
<tr>
<td>UN number</td>
</tr>
<tr>
<td>Proper shipping name and description</td>
</tr>
<tr>
<td>Chemical name</td>
</tr>
<tr>
<td>Class</td>
</tr>
<tr>
<td>Packaging group</td>
</tr>
<tr>
<td>Labels</td>
</tr>
</tbody>
</table>

**15. Regulatory information**

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

Specific safety, health and environmental regulations/legislation for the substance.

- **IATA** - International Air Transport Association
- **RID** - Regulations for international rail transport of dangerous goods.
- **ADR** - European Agreement concerning international carriage of dangerous goods by road.
- **ČSN 650201** - Flammable liquids. Plants and warehouses.
- **Act no. 201/2012 Coll.** on Air Protection, as amended.
- **Act no. 350/2011 Coll.** on chemical substances and mixtures, and amending certain laws (Chemical Law)
- **Decree no. 93/2016 Coll.** on waste catalogue
- **Act no. 111/1994 Coll.** on road transport, as amended
- **Act no. 185/2001 Coll.** on wastes, as amended
- **Act no. 254/2001 Coll.** on waters, as amended
- **EC Regulation no. 1907/2006** Registration, evaluation, authorization and restriction of chemicals, establishing a European Chemicals Agency (REACH)
- **EC Regulation no. 453/2010.** Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH - MSDS)
- **EC Regulation no. 1272/2008** on classification, labelling and packaging of substances and mixtures (CLP)

**15.2 Chemical safety assessment**

Chemical safety assessment (CSA)

A Chemical Safety Assessment is not required. The material is exempted of registration under REACH regulation.
### 16. Other information

**ATTENTION:** This safety data sheet reflects our present knowledge and describes the product as to its safety requirements. It does not assure any characteristics but gives recommendations for safe storage and handling measures. Receivers have to observe any legal regulation in their own responsibility.

<table>
<thead>
<tr>
<th>SDS revision information</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Key/Abbreviations</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSA: Chemical Safety Assessment</td>
</tr>
<tr>
<td>PBT: Substance with Persistent, Bioaccumulative and Toxic properties.</td>
</tr>
<tr>
<td>vPvB: Substance with very Persistent and very Bioaccumulative properties.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Key References</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Classification information for mixtures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not relevant</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>List of relevant hazard statements and/or precautionary statements.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not relevant. Described in Sections 2 to 15.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Advice on appropriate training for employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular training in the scope safety handling, health and environment.</td>
</tr>
</tbody>
</table>