1. Identification

1.1. Product identifier

Product Identity: ROVABIO® ADVANCE P 10 (ADI079)

Alternate Names: ROVABIO® ADVANCE P 10 (ADI079)

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

Intended use: See Technical Data Sheet.

Application Method: See Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet

Company Name: Adisseo Canada Inc.

Adisseo Canada Inc. c/o Adisseo USA Inc.

4400 North Point Pkwy, Suite 275
Alpharetta, GA 30022

Emergency

24 hour Emergency Telephone No.: Carechem24 Toll Free (800) 579-7421

Customer Service: Adisseo Canada Inc.

Tel 800.387.2123 Fax 888.821.7726

2. Hazard(s) identification

2.1. Classification of the substance or mixture

Skin Sens. 1;H317: May cause an allergic skin reaction.

Resp. Sens. 1;H334: May cause allergy or asthma symptoms of breathing difficulties if inhaled.

2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.

Danger

H317 May cause an allergic skin reaction.

H334 May cause allergic or asthmatic symptoms or breathing difficulties if inhaled.

[Prevention]:

P261 Avoid breathing dust / fume / gas / mist / vapors / spray.

P272 Contaminated work clothing should not be allowed out of the workplace.

P280 Wear protective gloves / eye protection / face protection.
P285 In case of inadequate ventilation wear respiratory protection.

[Response]:
P302+352 IF ON SKIN: Wash with plenty of soap and water.
P304+341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
P313 Get medical advice / attention.
P321 Specific treatment (see information on this label).
P333+313 If skin irritation or a rash occurs: Get medical advice / attention.
P342+311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor / physician.
P363 Wash contaminated clothing before reuse.

[Storage]:
No GHS storage statements

[Disposal]:
P501 Dispose of contents / container in accordance with local / national regulations.

3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

<table>
<thead>
<tr>
<th>Ingredient/Chemical Designations</th>
<th>Weight %</th>
<th>GHS Classification</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium carbonate</td>
<td>10 - 25</td>
<td>Not Classified</td>
<td>[1][2]</td>
</tr>
<tr>
<td>CAS Number: 0000471-34-1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Xylanase, endo-1,4-</td>
<td>10 - 25</td>
<td>Resp. Sens. 1;H334</td>
<td>[1]</td>
</tr>
<tr>
<td>CAS Number: 0009025-57-4</td>
<td></td>
<td>Skin Sens. 1;H317</td>
<td></td>
</tr>
<tr>
<td>Glucanase, endo-1,3(4)-β-</td>
<td>10 - 25</td>
<td>Resp. Sens. 1;H334</td>
<td>[1]</td>
</tr>
<tr>
<td>CAS Number: 0062213-14-3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In accordance with paragraph (i) of §1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

[1] Substance classified with a health or environmental hazard.
*The full texts of the phrases are shown in Section 16.

4. First aid measures

4.1. Description of first aid measures

General

SPECIAL NOTE FOR PHYSICIAN: All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. Treat symptomatically. No specific antidote available.

Inhalation

Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious, place in the recovery position and obtain immediate medical attention. Give nothing by mouth.
Eyes
Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.

Skin
Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.

Ingestion
If victim is conscious and alert, give 1-2 glasses of water to drink. Do not give anything by mouth to an unconscious person. Seek medical attention. Do not leave victim unattended.

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

Overview
No specific symptom data available.
See section 2 for further details.

Inhalation
May cause allergy or asthma symptoms of breathing difficulties if inhaled.

Skin
May cause an allergic skin reaction.

5. Fire-fighting measures

5.1. Extinguishing media
Suitable methods of extinction In the event of a fire, use :
- foam
- sprayed water or water mist

Unsuitable methods of extinction
In the event of a fire, do not use :
- water jet

5.2. Special hazards arising from the substance or mixture
Consult the safety measures listed under headings 7 and 8.
For non first aid worker:
Avoid any contact with the skin and eyes. Avoid inhaling dust.
If a large quantity has been spilt, evacuate all personnel and only allow intervention by trained operators equipped with safety apparatus.
For first aid worker: First aid workers will be equipped with suitable personal protective equipment (See section 8).
Hazardous decomposition: Oxides of carbon.
Avoid breathing dust / fume / gas / mist / vapors / spray.

5.3. Advice for fire-fighters
Firefighters should wear NIOSH/MSHA-approved self-contained breathing apparatus and full protective clothing. Cool containers exposed to fire with water.
Closed containers may rupture due to buildup of pressure when exposed to extreme heat.
A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health. Do not breathe in smoke. Danger of ignition of dust storms.

ERG Guide No. ----
6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Put on appropriate personal protective equipment (see section 8).
Consult the safety measures listed under headings 7 and 8.
For non-first aid worker:
Avoid any contact with the skin and eyes. Avoid inhaling dust.
If a large quantity has been spilt, evacuate all personnel and only allow intervention by trained operators equipped with safety apparatus.
For first aid worker: First aid workers will be equipped with suitable personal protective equipment (See section 8).

6.2. Environmental precautions
Do not allow spills to enter drains or waterways.

6.3. Methods and material for containment and cleaning up
Consult the safety measures listed under headings 7 and 8.
For non-first aid worker:
Avoid any contact with the skin and eyes. Avoid inhaling dust.
If a large quantity has been spilt, evacuate all personnel and only allow intervention by trained operators equipped with safety apparatus.
For first aid worker: First aid workers will be equipped with suitable personal protective equipment (See section 8).
Retrieve the product by mechanical means (sweeping/vacuuming) : do not generate dust. Wash non-retrievable surplus thoroughly with running water.

7. Handling and storage

7.1. Precautions for safe handling
Always wash hands after handling. Remove and wash contaminated clothing before re-using.
Fire prevention: Handle in well-ventilated areas. Prevent access by unauthorized personnel.
Recommended equipment and procedures: For personal protection, see section 8. Observe precautions stated on label and also industrial safety regulations. Avoid inhaling dust. Also provide breathing apparatus for certain short tasks of an exceptional nature and for emergency interventions. In all cases, recover emissions at source. Avoid eye contact with this mixture.
Prohibited equipment and procedures: No smoking, eating or drinking in areas where the mixture is used.
See section 2 for further details. - [Prevention]:

7.2. Conditions for safe storage, including any incompatibilities
Handle containers carefully to prevent damage and spillage.
Store at a temperature below 30°C.
Store receptacles dry and hermetically closed to prevent absorption of humidity and contamination.
Keep the container tightly closed in a dry, well-ventilated place.

Packaging: Always keep in packaging made of an identical material to the original. Keep the container tightly closed in a dry, well-ventilated place. Packaging Always keep in packaging made of an identical material to the original. Incompatible materials: Strong oxidizing agents, strong acids
See section 2 for further details. - [Storage]:

7.3. Specific end use(s)
No data available.

### 8. Exposure controls and personal protection

#### 8.1. Control parameters

<table>
<thead>
<tr>
<th>Exposure</th>
<th>CAS No.</th>
<th>Ingredient</th>
<th>Source</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0000471-34-1</td>
<td>Calcium carbonate</td>
<td>OSHA</td>
<td>TWA 10 mg/m³ (total) TWA 5 mg/m³ (resp)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ACGIH</td>
<td>No Established Limit</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>NIOSH</td>
<td>TWA 10 mg/m³ (total) TWA 5 mg/m³ (resp)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Supplier</td>
<td>No Established Limit</td>
</tr>
<tr>
<td></td>
<td>0009025-57-4</td>
<td>Xylanase, endo-1,4-</td>
<td>OSHA</td>
<td>No Established Limit</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ACGIH</td>
<td>No Established Limit</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>NIOSH</td>
<td>No Established Limit</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Supplier</td>
<td>No Established Limit</td>
</tr>
<tr>
<td></td>
<td>0062213-14-3</td>
<td>Glucanase, endo-1,3(4)-β-</td>
<td>OSHA</td>
<td>No Established Limit</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>ACGIH</td>
<td>No Established Limit</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>NIOSH</td>
<td>No Established Limit</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Supplier</td>
<td>No Established Limit</td>
</tr>
</tbody>
</table>

The exposure limits for nuisance dust are: OSHA PEL: 15 mg/m³ (50 mppcf*) TWA, ACGIH 10 mg/m³.

#### 8.2. Exposure controls

**Respiratory**
When respirators are required, select NIOSH/MSHA approved equipment based on actual or potential airborne concentrations and in accordance with regulatory standards and/or industrial recommendations. Air-purifying (half-mask/full-face) respirator with cartridges/canister approved for use against organic vapors is recommended.

**Eyes**
A minimum of safety glasses with side shields is recommended.

**Skin**
Skin contact should be minimized through the use of chemical-resistant gloves and boots, and suitable protective clothing.

**Engineering Controls**
Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.

**Other Work Practices**
The following general measures should be taken when working or handling this material: 1) Do not store, use, and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored. 2) Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet. 3) Wash exposed skin promptly to remove accidental splashes of contact with this material.

See section 2 for further details. - [Prevention]:
9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Beige Powder or dust. Solid</td>
</tr>
<tr>
<td>Odor</td>
<td>Mild</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not determined</td>
</tr>
<tr>
<td>pH</td>
<td>Not relevant</td>
</tr>
<tr>
<td>Melting point / freezing point</td>
<td>Not Measured</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>Not Measured</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Not relevant</td>
</tr>
<tr>
<td>Evaporation rate (Ether = 1)</td>
<td>Not Measured</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>Lower Explosive Limit: Not Measured</td>
</tr>
<tr>
<td></td>
<td>Upper Explosive Limit: Not Measured</td>
</tr>
<tr>
<td>Vapor pressure (Pa)</td>
<td>Not relevant</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>Not Measured</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>Not Measured</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Dilatable</td>
</tr>
<tr>
<td>Partition coefficient n-octanol/water (Log Kow)</td>
<td>Not Measured</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not Measured</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not Measured</td>
</tr>
<tr>
<td>Viscosity (cSt)</td>
<td>Not Measured</td>
</tr>
<tr>
<td>Density</td>
<td>0.60 - 0.80</td>
</tr>
</tbody>
</table>

9.2. Other information
No other relevant information.

10. Stability and reactivity

10.1. Reactivity
Hazardous Polymerization will not occur.

10.2. Chemical stability
Stable under normal circumstances.

10.3. Possibility of hazardous reactions
No data available.

10.4. Conditions to avoid
Avoid:
- formation of dusts
- heating
- heat
- humidity
Dusts can form an explosive mixture with air.

10.5. Incompatible materials
Strong oxidizing agents, strong acids

10.6. Hazardous decomposition products
Oxides of carbon.

11. Toxicological information

Acute toxicity
Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Oral LD50, mg/kg</th>
<th>Skin LD50, mg/kg</th>
<th>Inhalation Vapor LC50, mg/L/4hr</th>
<th>Inhalation Dust/Mist LC50, mg/L/4hr</th>
<th>Inhalation Gas LC50, ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium carbonate - (471-34-1)</td>
<td>6,450.00, Rat -</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
</tr>
<tr>
<td>Xylanase, endo-1,4- - (9025-57-4)</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
</tr>
<tr>
<td>Glucanase, endo-1,3(4)-β- - (62213-14-3)</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
<td>No data available</td>
</tr>
</tbody>
</table>

Carcinogen Data

<table>
<thead>
<tr>
<th>CAS No.</th>
<th>Ingredient</th>
<th>Source</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>0000471-34-1</td>
<td>Calcium carbonate</td>
<td>OSHA</td>
<td>Select Carcinogen: No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NTP</td>
<td>Known: No; Suspected: No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IARC</td>
<td>Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;</td>
</tr>
<tr>
<td>0009025-57-4</td>
<td>Xylanase, endo-1,4-</td>
<td>OSHA</td>
<td>Select Carcinogen: No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NTP</td>
<td>Known: No; Suspected: No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IARC</td>
<td>Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;</td>
</tr>
<tr>
<td>0062213-14-3</td>
<td>Glucanase, endo-1,3(4)-β-</td>
<td>OSHA</td>
<td>Select Carcinogen: No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NTP</td>
<td>Known: No; Suspected: No</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IARC</td>
<td>Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;</td>
</tr>
</tbody>
</table>

Classification

<table>
<thead>
<tr>
<th>Category</th>
<th>Hazard Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity (oral)</td>
<td>- Not Applicable</td>
</tr>
<tr>
<td>Acute toxicity (dermal)</td>
<td>- Not Applicable</td>
</tr>
<tr>
<td>Acute toxicity (inhalation)</td>
<td>- Not Applicable</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>- Not Applicable</td>
</tr>
<tr>
<td>Serious eye damage/irritation</td>
<td>- Not Applicable</td>
</tr>
</tbody>
</table>
12. Ecological information

12.1. Toxicity
No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>96 hr LC50 fish, mg/l</th>
<th>48 hr EC50 crustacea, mg/l</th>
<th>ErC50 algae, mg/l</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calcium carbonate - (471-34-1)</td>
<td>56,000.00, Gambusia affinis</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
<tr>
<td>Xylanase, endo-1,4- - (9025-57-4)</td>
<td>Not Available</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
<tr>
<td>Glucanase, endo-1,3(4)-β- - (62213-14-3)</td>
<td>Not Available</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability
There is no data available on the preparation itself.

12.3. Bioaccumulative potential
Not Measured

12.4. Mobility in soil
No data available.

12.5. Results of PBT and vPvB assessment
This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects
No data available.

13. Disposal considerations

13.1. Waste treatment methods
Observe all federal, state and local regulations when disposing of this substance.
14. Transport information

<table>
<thead>
<tr>
<th>DOT (Domestic Surface Transportation)</th>
<th>IMO / IMDG (Ocean Transportation)</th>
<th>ICAO/IATA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Applicable</td>
<td>Not Regulated</td>
<td>Not Regulated</td>
</tr>
</tbody>
</table>

14.1. UN number
Not Applicable

14.2. UN proper shipping name
Not Regulated

14.3. Transport hazard class(es)
DOT Hazard Class: Not Applicable
IMDG: Not Applicable
Sub Class: Not Applicable

14.4. Packing group
Not Applicable

14.5. Environmental hazards
IMDG
Marine Pollutant: No;

14.6. Special precautions for user
No further information

15. Regulatory information

Regulatory Overview
The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

Toxic Substance Control Act (TSCA)
All components of this material are either listed or exempt from listing on the TSCA Inventory.

WHMIS Classification
D2A

US EPA Tier II Hazards
Fire: No
Sudden Release of Pressure: No
Reactive: No
Immediate (Acute): Yes
Delayed (Chronic): No

EPCRA 311/312 Chemicals and RQs:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 302 Extremely Hazardous:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 313 Toxic Chemicals:
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Carcinogens (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Developmental Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Female Repro Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.
Proposition 65 - Male Repro Toxins (>0.0%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

New Jersey RTK Substances (>1%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Pennsylvania RTK Substances (>1%):
To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:
H317 May cause an allergic skin reaction.
H334 May cause allergic or asthmatic symptoms or breathing difficulties if inhaled.

Disclaimer: The information and recommendations in this data sheet are believed to be correct and reliable. However, the data are offered for consideration and verification by the user and Adisseo Canada Inc. offers no guarantee, warranty or representation as to the accuracy or completeness of the data.

End of Document