

1. Identification

1.1. Product identifier

Product Identity ROVABIO® ADVANCE PHY T (ADI110)
Alternate Names ROVABIO® ADVANCE PHY T (ADI110)

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 Adiseo USA Inc.
 4400 North Point Pkwy, Suite 275
 Alpharetta, GA 30022

Emergency

24 hour Emergency Telephone No. Carechem24 Toll Free (800) 727-5083
Customer Service: Adiseo USA Inc. For Product Information: (800) 727-1019 Tel.
 678.339.1500 – Fax 678.339.1600

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 or breathing difficulties if inhaled.

2.2. Label elements



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.



Safety Data Sheet ROVABIO® ADVANCE PHY T (ADI110)

SDS Revision
Date: 05/29/2018

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.

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.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Calcium carbonate CAS Number: 0000471-34-1	10 - 25	Not Classified	[1][2]
6-Phytase CAS Number: 0009001-89-2	10 - 25	Resp. Sens. 1;H334 Skin Sens. 1;H317	[1]
Xylanase, endo-1,4- CAS Number: 0009025-57-4	2.5 - 10	Resp. Sens. 1;H334 Skin Sens. 1;H317	[1]
Glucanase, endo-1,3(4)-.beta.- CAS Number: 0062213-14-3	2.5 - 10	Resp. Sens. 1;H334	[1]

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.

[2] Substance with a workplace exposure limit.

[3] PBT-substance or vPvB-substance.

*The full texts of the phrases are shown in Section 16.

Section 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. Treat symptomatically. 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.

Section 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. ----

Section 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).

Clean preferably with a detergent, do not use solvents. Wash non-retrievable surplus thoroughly with running water.

Section 7. Handling and storage

7.1. Precautions for safe handling

Handle containers carefully to prevent damage and spillage.

Always wash hands after handling. Remove and wash contaminated clothing before re-using.

Fire prevention : Handle in well-ventilated areas. Prevent access by unauthorised 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

Store the receptacle in a well-ventilated area.

Preferably store in a cold area (10°C) in the original packaging. Do not exceed 30°C to prevent accelerated loss of the preparation's performance.



Safety Data Sheet
ROVABIO® ADVANCE
PHY T (ADI110)

SDS Revision
Date: 05/29/2018

Storage: 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.

Section 8. Exposure controls and personal protection

8.1. Control parameters

Exposure

CAS No.	Ingredient	Source	Value
0000471-34-1	Calcium carbonate	OSHA	TWA 10 mg/m ³ (total) TWA 5 mg/m ³ (resp)
		ACGIH	No Established Limit
		NIOSH	TWA 10 mg/m ³ (total) TWA 5 mg/m ³ (resp)
0009001-89-2	6-Phytase	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
0009025-57-4	Xylanase, endo-1,4-	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
0062213-14-3	Glucanase, endo-1,3(4)-.beta.-	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit

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.

Section 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	White to clear beige powder or dust. Solid
Odor	Mild
Odor threshold	Not determined
pH	Not relevant
Melting point / freezing point	Not Measured
Initial boiling point and boiling range	Not Measured
Flash Point	Not relevant
Evaporation rate (Ether = 1)	Not Measured
Flammability (solid, gas)	Not Applicable
Upper/lower flammability or explosive limits	Lower Explosive Limit: Not Measured Upper Explosive Limit: Not Measured
Vapor pressure (Pa)	Not relevant
Vapor Density	Not Measured
Specific Gravity	Not Measured
Solubility in Water	Insoluble
Partition coefficient n-octanol/water (Log Kow)	Not Measured
Auto-ignition temperature	Not Measured
Decomposition temperature	Not Measured
Viscosity (cSt)	Not Measured
Density	0.6 - 0.8

9.2. Other information

No other relevant information.

Section 10. Stability and reactivity

10.1. Reactivity

Hazardous Polymerization will not occur.

10.2. Chemical stability

Stable under normal circumstances.



Safety Data Sheet
ROVABIO® ADVANCE
PHY T (ADI110)

SDS Revision
Date: 05/29/2018

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Extreme heat, open flame

10.5. Incompatible materials

Strong oxidizing agents, strong acids

10.6. Hazardous decomposition products

Oxides of carbon.

Section 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).

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
Calcium carbonate - (471-34-1)	6,450.00, Rat - Category: NA	---	---	---	---
6-Phytase - (9001-89-2)	---	---	---	---	---
Xylanase, endo-1,4- - (9025-57-4)	---	---	---	---	---
Glucanase, endo-1,3(4)-.beta.- - (62213-14-3)	---	---	---	---	---

Carcinogen Data

CAS No.	Ingredient	Source	Value
0000471-34-1	Calcium carbonate	OSHA	Regulated Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0009001-89-2	6-Phytase	OSHA	Regulated Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0009025-57-4	Xylanase, endo-1,4-	OSHA	Regulated Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0062213-14-3	Glucanase, endo-1,3(4)-.beta.-	OSHA	Regulated Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;

Classification	Category	Hazard Description
Acute toxicity (oral)	---	Not Applicable



Safety Data Sheet
ROVABIO® ADVANCE
PHY T (ADI110)

SDS Revision
Date: 05/29/2018

Acute toxicity (dermal)	---	Not Applicable
Acute toxicity (inhalation)	---	Not Applicable
Skin corrosion/irritation	---	Not Applicable
Serious eye damage/irritation	---	Not Applicable
Respiratory sensitization	1	May cause allergy or asthma symptoms of breathing difficulties if inhaled.
Skin sensitization	1	May cause an allergic skin reaction.
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	---	Not Applicable
Reproductive toxicity	---	Not Applicable
STOT-single exposure	---	Not Applicable
STOT-repeated exposure	---	Not Applicable
Aspiration hazard	---	Not Applicable

Section 12. Ecological information

12.1. Toxicity

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

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
Calcium carbonate - (471-34-1)	101.00, Oncorhynchus mykiss	101.00, Daphnia magna	Not Available
6-Phytase - (9001-89-2)	Not Available	Not Available	Not Available
Xylanase, endo-1,4- - (9025-57-4)	Not Available	Not Available	Not Available
Glucanase, endo-1,3(4)-.beta.- - (62213-14-3)	Not Available	Not Available	Not Available

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.

Section 13. Disposal considerations

13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.

Section 14. Transport information

	DOT (Domestic Surface Transportation)	IMO / IMDG (Ocean Transportation)	ICAO/IATA
14.1. UN number	Not Regulated	Not Regulated	Not Regulated
14.2. UN proper shipping name	Not Regulated	Not Regulated	Not Regulated
14.3. Transport hazard class(es)	DOT Hazard Class: Not Applicable	IMDG: Not Applicable Sub Class: Not Applicable	Air Class: Not Applicable
14.4. Packing group	Not Applicable	Not Applicable	Not Applicable
14.5. Environmental hazards			
IMDG	Marine Pollutant: No;		
14.6. Special precautions for user	No further information		

Section 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 1988 Classification D2A

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

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



Safety Data Sheet
ROVABIO® ADVANCE
PHY T (ADI110)

SDS Revision
Date: 05/29/2018

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.

Section 16. Other information

SDS Revision Date 05/29/2018

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