SAFETY DATA SHEET

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/

1.1. Product identifier

Product name: agrOptim zenith

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

Fertiliser

Use descriptor system (REACH):

No data available.

1.3. Details of the supplier of the safety data sheet

Registered company name: PRP Technologies

Address: BP 46 - 33 avenue du Maine - Tour Montparnasse - 75755 Paris cedex - France

Phone: +33 (0)1 56 54 28 40 Fax: +33 (0)1 56 54 28 41

fds-prp@prp.fr

1.4. Emergency telephone number:

In case of emergency, call 112.

Other emergency numbers

In case of emergency, call nearest poison center.

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

In compliance with Regulation (EC) No.1272/2008 and its amendments.

This mixture does not present a physical hazard. Refer to the recommendations regarding the other products present on the site. This mixture does not present a health hazard with the exception of possible occupational exposure thresholds (see paragraphs 3 and 8). This mixture does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

2.2. Label elements

In compliance with Regulation (EC) No.1272/2008 and its amendments.

Hazard pictograms: none Signal Word: none Hazard statements: none Additional labelling:

EUH210 Safety data sheet available on request.

2.3. Other hazards

This mixture contains boric acid (CAS No.10043-35-3), 'Substance of Very High Concern' (SVHC), classified T, R60/61, Repr. Cat. 2 - Repro. Tox. 1B, H360FD. This substance is present at a concentration lower than its specific concentration limit of 5.5%. Therefore, the mixture is not classified in this hazard category.

The mixture does not contain any other substance classified as 'Substances of Very High Concern' (SVHC) as defined by criteria of article 57 and as per article 59 of REACH (Regulation (EC) No.1907/2006) at concentration ≥ 0.1% - list published by the European CHemicals Agency (ECHA): http://echa.europa.eu/fr/candidate-list-table.

The mixture does not contain any PBT or vPvB substances as defined in annex XIII of the REACH Regulation (EC) No.1907/2006.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable (mixture).

3.2. Mixtures

Composition:

INDEX	CAS No.	CE No.	Name	Hazard pictograms	Classification	% m/m
-	7791-18-6	232-094-6	Hexahydrate magnesium chloride *	None	Not classified	1-5%
005-007-00-2	10043-35-3	233-139-2	Boric acid**	GHS08	Repro. Tox. 1B, H360FD (Specific concentration limit: 5.5%)	0.1-1%

^{*} Substance for which a workplace exposure limit exists.

Information on ingredients:

No data available.

Other data:

No data available.

^{**} Substance of Very High Concern (SVHC)

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SECTION 4: FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor.

NEVER induce swallowing if the victim is unconscious.

4.1. Description of first aid measures

In the event of exposure by inhalation:

In the event of massive inhalation, remove the exposed person to fresh air. Keep warm and at rest.

In the event of splashes or contact with eyes:

Wash thoroughly with soft, clean water holding the eyelids open.

In the event of splashes or contact with skin:

Remove any soiled or splashed clothing immediately. Wash skin with soap and water.

In the event of swallowing:

Do not induce swallowing.

In the event of swallowing, if the quantity is small (no more than one mouthful), rinse the mouth with water and consult a doctor.

Keep the person exposed at rest. Do not induce vomiting.

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

No data available.

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

Specific and immediate treatment:

Treat symptomatically.

Information for the doctor:

No data available.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable methods of extinction

In the event of a fire, use:

- sprayed water or water mist
- foam
- dry powder
- carbon dioxide (CO₂)

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

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health.

Do not breathe in smoke

In the event of a fire, the following may be formed:

- carbon monoxide (CO)
- carbon dioxide (CO₂)
- nitrogen oxide (NOx)

5.3. Advice for firefighters

No data available.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Consult safety advice of sections 7 and 8.

For non first aid worker

In the event of accidental release of a large quantity, evacuate all unnecessary personnel and allow intervention only by trained operators equipped with safety apparatus

Ventilate area.

For first aid worker

First aid workers will be equipped with suitable personal protective equipment (See section 8).

6.2. Environmental precautions

Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal.

Prevent any material from entering drains or waterways.

6.3. Methods and material for containment and cleaning up

Clean preferably with a detergent, do not use solvents.

6.4. Reference to other sections

Consult sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

Requirements relating to storage premises apply to all facilities where the mixture is handled.

7.1. Precautions for safe handling

Always wash hands after handling.

Remove and wash contaminated clothing before re-using.

Fire prevention:

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.

Packages which have been opened must be reclosed carefully and stored in an upright position.

Prohibited equipment and procedures:

No smoking, eating or drinking in areas where the mixture is used.

7.2. Conditions for safe storage, including any incompatibilities

Always keep in original packaging.

Keep the container tightly closed in a dry, well-ventilated area.

Keep away from food, drink and animal feedingstuffs.

7.3. Specific end use(s)

No data available

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Occupational exposure limits:

CAS No.	CE No.	Name	Occupational exposure limits	
			(France)	
7791-18-6	232-094-6	Hexahydrate magnesium chloride	10 mg/m³ (TGG-8h)	

Biological limits:

No data available

Derived no effect level (DNEL) or derived minimum effect level (DMEL):

No data available.

Predicted no effect concentration (PNEC):

No data available.

8.2. Exposure controls

Suitable technical inspections:

No data available.

Personal protection measures, such as personal protective equipment

Use personal protective equipment that is clean and has been properly maintained in accordance with Directive 89/686/EC.

Store personal protective equipment in a clean place, away from the work area.

Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using.

Ensure that there is adequate ventilation, especially in confined areas.

Eye / face protection

Avoid contact with eyes.

- Hand protection

Use suitable protective gloves in case of repeated or prolonged exposure.

- Body protection

Avoid contact with skin.

Work clothing worn by personnel shall be laundered regularly.

After contact with the product, all parts of the body that have been soiled must be washed.

- Respiratory protection

If ventilation is insufficient, wear appropriate breathing apparatus.

- Thermal risks

Not applicable.

Exposure controls linked to environmental protection

No data available

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

General information:

Physical state: Limpid liquid Odor: Ammonia Color: Green-blue

Important health, safety and environmental information

pH (aqueous solution): 8

Melting point/melting range: Not determined Freezing point: < 0°C > 100°C Boiling point/boiling range: Flash point: Not determined Evaporation rate: Not determined Flammability: Lower/upper flammability limits: Non flammable Not determined Not determined Lower/upper explosive limits: Vapour pressure: Not determined Vapour density: Not determined

Density: 1.19

Solubility: totally soluble in water
Octanol/water partition coefficient: Not determined
Self-ignition temperature: Not determined
Decomposition point: Not determined

Viscosity: Slightly higher than viscosity of water

Explosive properties: Not explosive Oxidising properties: Not oxidising

9.2. Other information

No data available.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

No data available.

10.2. Chemical stability

This mixture is stable under the recommended handling and storage conditions in section 7.

10.3. Possibility of hazardous reactions

When exposed to high temperatures, the mixture can release fumes and hazardous decomposition products.

10.4. Conditions to avoid

No data available.

10.5. Incompatible materials

No data available.

10.6. Hazardous decomposition products

The thermal decomposition may release/form:

- carbon monoxide (CO)
- carbon dioxide (CO₂)
- nitrogen oxide (NO_x)

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SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

11.1.1. Substances

Not applicable (mixture).

11.1.2. Mixture

No toxicological data available for the mixture.

This mixture does not present a health hazard (classification by the conventional method).

Acute toxicity:

No data available.

Skin corrosion/skin irritation:

No data available.

Serious damage to eyes/eye irritation:

No data available

Respiratory or skin sensitisation:

No data available.

Germ cell mutagenicity:

No data available.

Carcinogenicity:

No data available.

Reproductive toxicant:

No data available.

Specific target organ systemic toxicity - single exposure:

No data available

Specific target organ systemic toxicity - repeated exposure:

No data available.

Aspiration hazard:

No data available.

Symptoms related to the physical, chemical and toxicological characteristics

No data available.

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

No data available.

Interactive effects

No data available.

Absence of specific data

No data available.

Other information

No data available.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

12.1.1. Substances

Not applicable (mixture).

12.1.2. Mixtures

This mixture does not present any ecotoxicological hazard (classification by conventional method).

No foreseeable adverse effect to environment under normal conditions of use.

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

The mixture does not contain any PBT nor vPvB substance.

12.6. Other adverse effects

No data available

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SECTION 13: DISPOSAL CONSIDERATIONS

Proper waste management of the mixture and/or its container must be determined in accordance with Directive 2008/98/EC.

13.1. Waste treatment methods

Do not pour into drains or waterways.

Waste:

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air. soil. plants or animals.

Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

Soiled packaging:

Completely empty container. Keep label(s) on container.

Give to a certified disposal contractor.

Local arrangements:

No data available.

SECTION 14: TRANSPORT INFORMATION

Exempt from transport classification and labelling

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2013 - IMDG 2012 - ICAO/IATA 2014).

SECTION 15: REGULATORY INFORMATION

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

- Classification and labelling information included in section 2:

The following regulations have been used:

- Regulation (EC) No.1272/2008 and its modifications

- Container information:

No data available

- Particular provisions:

No data available.

15.2. Chemical safety assessment

No data available.

SECTION 16: OTHER INFORMATION

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.

The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.

Title for H, EUH and R indications mentioned in section 3:

H360FD May damage fertility. May damage the unborn child.

Abbreviations:

ADR: European agreement concerning the international carriage of dangerous goods by Road.

IMDG: International Maritime Dangerous Goods.

IATA: International Air Transport Association.

ICAO: International Civil Aviation Organisation

RID: Regulations concerning the International carriage of Dangerous goods by rail.

Revision:

Vertical lines in the left-hand margin indicate changes compared with the previous version.

This version supersedes all previous versions.