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1. Identification

Product identifier used on the label

Component A of Vault IP Plus

Recommended use of the chemical and restriction on use

Recommended use*: Biological beneficial agent

Details of the supplier of the safety data sheet

Company:
BASF CORPORATION
100 Park Avenue
Florham Park, NJ 07932, USA

Telephone: +1 973 245-6000

Emergency telephone number

24 Hour Emergency Response Information

CHEMTREC: 1-800-424-9300

BASF HOTLINE: 1-800-832-HELP (4357)

Other means of identification

Substance number: 777814

Registration number: EPA Registration number: 71840-31 Chemical family: No applicable information available.

2. Hazards Identification

According to Regulation 2024 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Classification of the product

No need for classification according to GHS criteria for this product.

Label elements

^{*} The "Recommended use" identified for this product is provided solely to comply with a Federal requirement and is not part of the seller's published specification. The terms of this Safety Data Sheet (SDS) do not create or infer any warranty, express or implied, including by incorporation into or reference in the seller's sales agreement.

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The product does not require a hazard warning label in accordance with GHS criteria.

Micro-organisms may have the potential to provoke sensitising reactions.

3. Composition / Information on Ingredients

According to Regulation 2024 OSHA Hazard Communication Standard; 29 CFR Part 1910.1200

Bacillus subtilis

CAS Number: 68038-70-0 Content (W/W): 1.706 % Synonym: No data available.

Bacillus amyloliquefaciens MBI600 (live bacterial spore) [EXT]

Content (W/W): 3.132 % Synonym: MBI600

glycerol

CAS Number: 56-81-5

Content (W/W): >= 50.0 - < 60.0% Synonym: 1,2,3-Propanetriol; Glycerol

The actual concentration is withheld as a trade secret. NJ TSRN: New Jersey Trade Secret Registry Number

4. First-Aid Measures

Description of first aid measures

General advice:

Remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air.

If on skin:

Wash thoroughly with soap and water

If in eves:

Wash affected eyes for at least 15 minutes under running water with eyelids held open.

If swallowed:

Rinse mouth and then drink 200-300 ml of water.

Most important symptoms and effects, both acute and delayed

Symptoms: (Further) symptoms and / or effects are not known so far Hazards: (Further) symptoms and / or effects are not known so far

Indication of any immediate medical attention and special treatment needed

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Note to physician

Treatment: Symptomatic treatment (decontamination, vital functions).

5. Fire-Fighting Measures

Extinguishing media

Suitable extinguishing media: water spray, dry powder, foam, carbon dioxide

Special hazards arising from the substance or mixture

Hazards during fire-fighting:

carbon monoxide, carbon dioxide, nitrogen oxides

The substances/groups of substances mentioned can be released in case of fire.

Advice for fire-fighters

Protective equipment for fire-fighting:

Wear self-contained breathing apparatus and chemical-protective clothing.

Further information:

Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations. In case of fire and/or explosion do not breathe fumes. Keep containers cool by spraying with water if exposed to fire.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Do not breathe vapour/spray. Use personal protective clothing. Avoid contact with the skin, eyes and clothing.

Environmental precautions

Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater.

Methods and material for containment and cleaning up

Dike spillage. Pick up with suitable absorbent material. Place into suitable containers for reuse or disposal in a licensed facility. Spilled substance/product should be recovered and applied according to label rates whenever possible. If application of spilled substance/product is not possible, then spills should be contained, solidified, and placed in suitable containers for disposal. After decontamination, spill area can be washed with water. Collect wash water for approved disposal.

7. Handling and Storage

Precautions for safe handling

Protection against fire and explosion:

No special precautions necessary. The substance/product is non-combustible. Product is not explosive.

Conditions for safe storage, including any incompatibilities

Segregate from foods and animal feeds.

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Further information on storage conditions: Keep away from heat. Protect from direct sunlight.

Protect from temperatures below: 2 °C

Changes in the properties of the product may occur if substance/product is stored below indicated temperature for extended periods of time.

Protect from temperatures above: 30 °C

Changes in the properties of the product may occur if substance/product is stored above indicated temperature for extended periods of time.

8. Exposure Controls/Personal Protection

Users of a pesticidal product should refer to the product label for personal protective equipment requirements.

Components with occupational exposure limits

glycerol OSHA Z1: PEL 15 mg/m3 Total dust;

OSHA Z1: PEL 5 mg/m3 Respirable fraction;

Advice on system design:

No applicable information available.

Personal protective equipment

RECOMMENDATIONS FOR MANUFACTURING, COMMERCIAL BLENDING, AND PACKAGING WORKERS:

Respiratory protection:

Wear respiratory protection if ventilation is inadequate. Wear a NIOSH-certified (or equivalent) 21C air purifying respirator equipped with high efficiency particulate filter (HEPA) when particulates may be generated. For situations where the airborne concentrations may exceed the level for which an air purifying respirator is effective, or where the levels are unknown or Immediately Dangerous to Life or Health (IDLH), use NIOSH-certified full facepiece pressure demand self-contained breathing apparatus (SCBA) or a full facepiece pressure demand supplied-air respirator (SAR) with escape provisions.

Hand protection:

Chemical resistant protective gloves, Protective glove selection must be based on the user's assessment of the workplace hazards.

Eye protection:

Safety glasses with side-shields. Tightly fitting safety goggles (chemical goggles). Wear face shield if splashing hazard exists.

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. head protection, apron, protective boots, chemical-protection suit.

General safety and hygiene measures:

The statements on personal protective equipment in the instructions for use apply when handling crop-protection agents in final-consumer packing. Wearing of closed work clothing is recommended. Store work clothing separately. Keep away from food, drink and animal feeding stuffs.

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9. Physical and Chemical Properties

Physical state: liquid Form: liquid of yeast Odour:

Odour threshold: Not determined due to potential health hazard by inhalation.

Colour: light brown approx. 5 - 7 pH value:

(20°C)

approx. -35 °C Melting temperature:

Information applies to the solvent.

approx. 109 °C boiling temperature:

Information applies to the solvent. No applicable information available.

Sublimation point: Flash point: A flash point determination is

unnecessary due to the high water

content.

Flammability: not applicable

Lower explosion limit: As a result of our experience with this

> product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with

the intended use.

Upper explosion limit: As a result of our experience with this

> product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with

the intended use.

Autoignition: Based on the water content the

product does not ignite.

Vapour pressure: approx. 1.73 hPa

(20°C)

Information applies to the solvent.

Density: approx. 1.17 g/cm3

(20 °C)

Relative vapour density: not applicable

Partitioning coefficient nnot applicable for mixtures

octanol/water (log Pow):

Thermal decomposition: No decomposition if stored and handled as

prescribed/indicated.

Viscosity, dynamic: thixotropic

Viscosity, kinematic: No data available.

Solubility in water: dispersible

Solubility (quantitative): No data available. Solubility (qualitative): No data available. Molecular weight: No data available. Evaporation rate: not applicable

Other Information: If necessary, information on other physical and chemical

parameters is indicated in this section.

Particle characteristics

Particle size distribution: The substance / product is marketed or used in a non solid or granular

form.

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10. Stability and Reactivity

Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

Oxidizing properties:

Based on its structural properties the product is not classified as oxidizing.

Chemical stability

The product is stable if stored and handled as prescribed/indicated.

Possibility of hazardous reactions

No hazardous reactions if stored and handled as prescribed/indicated.

Conditions to avoid

See SDS section 7 - Handling and storage.

Incompatible materials

strong acids, strong bases, strong oxidizing agents

Hazardous decomposition products

Decomposition products:

Hazardous decomposition products: No hazardous decomposition products if stored and handled as prescribed/indicated.

Thermal decomposition:

No decomposition if stored and handled as prescribed/indicated.

11. Toxicological information

Primary routes of exposure

Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Toxicity/Effects

Acute toxicity

Assessment of acute toxicity: Virtually nontoxic after a single ingestion. Virtually nontoxic by inhalation. Virtually nontoxic after a single skin contact.

<u>Oral</u>

Type of value: LD50 Species: rat (female) Value: > 5,000 mg/kg

Inhalation

Type of value: LC50 Species: rat (male/female)

Value: 2.13 mg/l An aerosol was tested.

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No mortality was observed. Highest concentration technically achievable.

Dermal

Type of value: LD50 Species: rat (male/female) Value: > 5,000 mg/kg

Assessment other acute effects

Assessment of STOT single:

Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

The product has not been tested. The statement has been derived from the properties of the individual components.

<u>Irritation / corrosion</u>

Assessment of irritating effects: Not irritating to eyes and skin.

Skin

Species: rabbit Result: non-irritant

Eye

Species: rabbit Result: non-irritant

Sensitization

Assessment of sensitization: No sensitizing effect. The product has not been tested. The statement has been derived from the properties of the individual components.

Aspiration Hazard

not applicable

Chronic Toxicity/Effects

Repeated dose toxicity

Assessment of repeated dose toxicity: The product has not been tested. The statement has been derived from the properties of the individual components. No substance-specific organization was observed after repeated administration to animals.

Genetic toxicity

Assessment of mutagenicity: The product has not been tested. The statement has been derived from the properties of the individual components. Mutagenicity tests revealed no genotoxic potential.

Carcinogenicity

Assessment of carcinogenicity: The product has not been tested. The statement has been derived from the properties of the individual components. The results of various animal studies gave no indication of a carcinogenic effect.

Reproductive toxicity

Assessment of reproduction toxicity: The product has not been tested. The statement has been derived from the properties of the individual components. The results of animal studies gave no indication of a fertility impairing effect.

Teratogenicity

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Assessment of teratogenicity: The product has not been tested. The statement has been derived from the properties of the individual components. Animal studies gave no indication of a developmental toxic effect at doses that were not toxic to the parental animals.

Other Information

Misuse can be harmful to health.

12. Ecological Information

Toxicity

Aquatic toxicity

Assessment of aquatic toxicity:

There is a high probability that the product is not acutely harmful to aquatic organisms. The product has not been tested. The statement has been derived from the properties of the individual components.

Persistence and degradability

Assessment biodegradation and elimination (H2O) not applicable

Bioaccumulative potential

Assessment bioaccumulation potential not applicable

Mobility in soil

Assessment transport between environmental compartments not applicable

Additional information

Other ecotoxicological advice:

Do not discharge product into the environment without control.

13. Disposal considerations

Waste disposal of substance:

Pesticide wastes are regulated. Improper disposal of excess pesticide, spray mix or rinsate is a violation of federal law. If pesticide wastes cannot be disposed of according to label instructions, contact the State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Container disposal:

Rinse thoroughly at least three times (triple rinse) in accordance with EPA recommendations. Consult state or local disposal authorities for approved alternative procedures such as container recycling. Recommend crushing, puncturing or other means to prevent unauthorized use of used containers.

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14. Transport Information

Land transport

USDOT

Not classified as a dangerous good under transport regulations

Sea transport

IMDG

Not classified as a dangerous good under transport regulations

Air transport

Not classified as a dangerous good under transport regulations

15. Regulatory Information

Federal Regulations

Registration status:

Crop Protection TSCA, US released / exempt

EPCRA 311/312 (Hazard categories): Refer to SDS section 2 for GHS hazard classes applicable for this product.

State regulations

State RTK	<u>CAS Number</u>	Chemical name
NJ	56-81-5	glycerol
PA	56-81-5	glycerol

Labeling requirements under FIFRA

This chemical is a pesticide product regulated by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label.

KEEP OUT OF REACH OF CHILDREN.

Wear a long-sleeved shirt, long pants, socks and shoes.

Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, up

Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Remove PPE immediately after handling this product.

As soon as possible, wash thoroughly and change into clean clothing.

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16. Other Information

SDS Prepared by:

BASF NA Product Regulations SDS Prepared on: 2025/08/26

We support worldwide Responsible Care® initiatives. We value the health and safety of our employees, customers, suppliers and neighbors, and the protection of the environment. Our commitment to Responsible Care is integral to conducting our business and operating our facilities in a safe and environmentally responsible fashion, supporting our customers and suppliers in ensuring the safe and environmentally sound handling of our products, and minimizing the impact of our operations on society and the environment during production, storage, transport, use and disposal of our products.

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END OF DATA SHEET