

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**1.1 Product identifier: Consortium (AF Consortium/AF Bacillus Consortium)****1.2 Relevant identified uses of the substance or mixture and uses advised against**

Product Use: As a foliar/soil spray/drench.

Uses advised against: All uses not specified in this section or in section 7.3. Not for oral consumption. Not for direct contact with Food or Beverages.

1.3 Details of the supplier of the safety data sheet:

AIVA LTD (Aiva Fertiliser)

The Old Farm Offices, Manor Farm, Ginge, Oxfordshire UNITED KINGDOM OX12 8QS

Tel: +44 (0) 1235 834 997 (option 2)

Email: office@aivafertiliser.co.uk

www.aivafertiliser.co.uk

1.4 Emergency telephone number:**SECTION 2: HAZARD IDENTIFICATION****2.1 Classification according to 1272/2008 CLP**

This product does not meet the criteria for classification in any hazard class according to Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures. However, a safety data sheet is being supplied upon request.

Physical hazards: Not applicable

Health hazards: Not applicable

Environmental hazards: Not applicable

Specific hazards: Not applicable

Main symptoms: Not applicable

2.1 Label elements 1272/2008**Hazard statements:**

Not applicable

Precautionary statements:**Prevention:**

P270 Do not eat, drink or smoke when using this product.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Response:

P301 + P330 + P331 – IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P304 + P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

P333+P313 If skin irritation occurs: Get medical advice/attention

P337 + P313 If eye irritation persists: Get medical advice/attention.

P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTRE or doctor/physician.

Disposal:

P501 Dispose of through a reputable waste disposal contractor.

Additional labelling:

Not applicable

Hazard pictograms:

Not applicable

Signal word:

Non-hazardous

2.3 Other hazards:**Criteria PBT/vPvB:**

The mixture does not fulfil the criteria for PBT or vPvB substance. The preparation contains microorganisms belonging to hazard group 1 as defined by the Advisory Committee on Dangerous Pathogens (ACDP) as unlikely to cause human disease. However, it should not be assumed that infection can never occur. People who are immunocompromised should not work with this product.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1/2 Substance:

CAS/EC-nr	EC-nr	Name	Content %	Classification CLP
		Bacillus + Paenibacillus spp. In an aqueous carrier	100%	

3.3 Additional information

See full text of H-phrases in chapter 16. Occupational limits are listed in section 8, if these are available.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures:

General information:

Remove victim immediately from source of exposure. General first aid, rest, warmth and fresh air. Get medical attention if any discomfort continues.

By inhalation:

Move affected person to fresh air, keep person quiet and warm; if breathing difficulties occur, remove casualty to fresh air. Get medical attention if discomfort continues.

By skin contact:

Flush contaminated skin with water and soap. Seek medical attention if any discomfort continues.

By eye contact:

Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present and easy to do so, then continue rinsing eye. Call a doctor/ophthalmologist if irritation persists.

By ingestion/aspiration:

Rinse mouth with water and drink plenty of water. Do NOT induce vomiting.

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

Sensitive individuals may experience breathing difficulties.

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

Follow advice in 4.1

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use. Ensure correct use of fire extinguishers for the surrounding area.

5.2 Special hazards arising from the substance or mixture:

None

5.3 Advice for firefighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and self-contained breathing apparatus (SCBA). Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...) in accordance with Directive 89/654/EC.

Additional provisions:

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Eliminate all sources of ignition. In case of fire, cool the storage containers and tanks for products susceptible to combustion, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel: Ensure PPE is worn, evacuate the area if safe to do so and inform emergency responders. Isolate leaks provided there is no additional risk for the people performing the task. Personal protective equipment must be used against potential contact with the spilt product (See Section 8). Evacuate the area and keep out those who do not have protection. Avoid contact with skin and eyes. Avoid breathing vapors/mists. Prevent releases to land, water and drainage systems which run into open waters and sewers.

6.2 Environmental precautions:

This product is not classified as hazardous to the environment. Ensure spilled/loss of material does not enter public sewers and open waterways.

6.3 Methods and material for containment and cleaning up:

For containment: Stop the source of the spill. Damp/cover entries to waterways/drains using sand, soil, spill kit.
For cleaning up: It is recommended: Absorb the spillage using sand or inert absorbent material and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. Contain and collect non-combustible absorbent materials and place in container for disposal, according to local regulations. For any concern related to disposal see Section 13.
Other information: Disposal of waste must be through a registered and approved waste disposal company.

6.4 Reference to other sections:

For guidance on selection of personal protective equipment see section 8 of this safety data sheet. For guidance on disposal of spilled material see section 13 of this Material Safety Data Sheet.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

A.- Precautions for safe manipulation

Wear full protective clothing for prolonged exposure and/or high concentrations. Do not smoke, eat or drink when handling product. Follow manufacturer’s recommendations. See section 8 for recommendations on the use of personal protective equipment.

B.- Technical recommendations for the prevention of fires and explosions

Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

It is recommended to have absorbent material available at close proximity to the product (see section 6 Methods and Material for Containment and Cleaning up).

7.2 Conditions for safe storage, including any incompatibilities:

A.- Technical measures for storage

Not applicable.

B.- General conditions for storage

Keep in original container. Store in a cool well-ventilated place. Keep container tightly closed. Store in demarcated/ bunded area to prevent release to drains and/or water courses.

7.3 Specific end use(s):

Except for the instructions already specified (refer to section 1.2) it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Not applicable

Occupational exposure limits EH40/2007:

Substance/material	8 hour TWA:	15 min STEL:
Not applicable		

DNEL (General population):

Non-applicable

PNEC:

Non-applicable

8.2 Exposure controls:

A - General security and hygiene measures in the work place:

As a preventative measure it is recommended to use basic personal protective equipment, with the corresponding 'CE Marking' in accordance with Directive 89/86/EC. For more information on personal protective equipment (storage, use, cleaning, maintenance, class of protection...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

B - Specific Respiratory Protection:

Recommended filter type A-P2 during prolonged use, or if limit value is exceeded.

C - Specific protection for the hands:

Wear protective gloves. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material. Possibility: Nitrile gloves. EN 374. >480 min.

D - Ocular and facial protection:

Wear tightly fitting safety goggles if risk of contact. EN 166.

E - Bodily protection:

Wear suitable protective clothing.

Appropriate technical measures:

Ensure adequate ventilation of the working area. Use local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

General information:

Smoking, consumption of food or liquid, and storage of tobacco, food or liquid, are not allowed in the workroom. Always wash hands, forearms and face.

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

Appearance:

Physical state at 20 °C: Not available

Appearance: Liquid

Colour: Cloudy off white

Odour: None

Odour threshold: Non-applicable *

Volatility:

Boiling point at atmospheric pressure: Non-applicable *

Vapour pressure at 20 °C: Non-applicable *

Vapour pressure at 50 °C: Non-applicable *

Evaporation rate at 20 °C: Non-applicable *

Product description:

Density at 20 °C: 0.95-1.05 g/cm³

Dynamic viscosity at 20 °C: Non-applicable *
 Kinematic viscosity at 20 °C: Non-applicable *
 Concentration: Non-applicable *
 pH: 6.5-7.5
 Vapour density at 20 °C: Non-applicable *
 Partition coefficient n-octanol/water 20 °C: Non-applicable *
 Solubility in water at 20 °C: 100%
 Solubility properties: Non-applicable *
 Decomposition temperature: Non-applicable *
 Melting point/freezing point/flash point: Non-applicable *
 Explosive properties: Non-applicable *
 Oxidising properties: Non-applicable *

Flammability:

Flash Point: Non-applicable
 Flammability (solid, gas): Non-applicable *
 Autoignition temperature: Non-applicable *
 Lower flammability limit: Non-applicable *
 Upper flammability limit: Non-applicable *

Explosive:

Lower explosive limit: Non-applicable *
 Upper explosive limit: Non-applicable *

9.2 Other information:

Surface tension at 20 °C: Non-applicable *
 Refraction index: Non-applicable *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

Beware of the following conditions:

Extremes of temperature

Beware of the following materials:

Biocides

10.2 Chemical stability:

Chemically stable under the conditions of storage, handling and use. May ferment when diluted with water.

10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:

Excess moisture or heat and storage of product in unventilated storage tanks or containers. Avoid direct sunlight, exposure to light.

10.5 Incompatible materials:

Any material with biocidal properties.

10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide, carbon monoxide and other organic compounds. Fire may produce toxic fumes, avoid inhalation

SECTION 11: TOXICOLOGICAL INFORMATION

The experimental information related to the toxicological properties of the product itself is not available. With possibility of effects that are hazardous to health, it is recommended not to breathe the vapours for long periods of time.

Dangerous health implications: In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

- Acute toxicity:** Non-toxic
- Skin corrosion/irritation:** Not an irritant
- Serious eye damage/irritation:** Not an irritant
- Respiratory or skin sensitisation:** Non-sensitising
- Germ cell mutagenicity:** Non-mutagenic
- Carcinogenicity:** Non-carcinogenic
- Reproductive toxicity:** Non-toxic
- Specific target organ toxicity - single exposure:** Non-toxic
- Specific target organ toxicity – repeated exposure:** Non - toxic
- Aspiration hazard:** No data available

Information on likely routes of exposure:

- Inhalation:** May cause sensitisation in some individuals.
- Skin:** absorbed through skin.
- Eyes:** Aerosol may cause irritation (surfactant).
- Ingestion:** Unlikely to be harmful if swallowed.
- Symptoms related to related to the physical, chemical and toxicological characteristics:** If inhaled, may cause sensitisation (shortness of breath).
- Delayed and immediate effects and chronic effects from short and long-term exposure:** If inhaled, may cause sensitisation (shortness of breath)
- Interactive Effects:** None.
- Absence of data:** If information is not listed in section 11 it is due to non - availability of data or not appropriate.
- Additional information:** None.

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

- 12.1 Toxicity:**
Not determined
- 12.2 Persistence and degradability:**
The bacteria are naturally present on the environment.
- 12.3 Bioaccumulative potential:**
Not expected to accumulate.
- 12.4 Mobility in soil:**
Not determined
- 12.5 Results of PBT and vPvB assessment:**
Bacteria are not classified as PBT or vPvB substances.
- 12.6 Other adverse effects:**
Not determined

SECTION 13: DISPOSAL CONSIDERATIONS

- 13.1 Waste treatment methods:**
Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations.
Dispose of waste material at an approved facility (such as approved municipal landfill, land application site, licensed waste contractor or incineration), as applicable, in compliance with local environmental standards and regulations.
Contaminated packing: Packaging can be cleaned out with hot water and food grade detergent and re-used.
- Waste Management (disposal and evaluation):**
Consult the authorised waste service manager on the assessment and disposal operations in accordance with Annex I and Annex II (Directive 2008/98/EC). Under 15 01 (2014/955/EC) of the code an din case the container has been in direct contact with the product, it

Aiva Fertiliser
 Manor Farm, Ginge
 Oxfordshire OX12 8QS
 T. +44 (0) 1235 834 997
 E. office@aivafertiliser.co.uk
 www.aivafertiliser.co.uk

will be processed in the same way as the actual product. Otherwise, it will ne processed as non-dangerous residue. Do not dispose down the drain. See paragraph 6.2.

Regulations related to waste management:

In accordance with Annex I of Regulation (EC) No 1907/2006 (REACH) the community or state provisions related to waste management are stated. Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1356/2014

SECTION 14: TRANSPORT INFORMATION

This product is not regulated for transport (ADR/RID,IMDG,IMO)

14.1 UN Number:

This product is not classified as dangerous for carriage.

14.2 UN proper shipping name:

This product is not classified as dangerous for carriage.

14.3 Transport hazard class(es):

This product is not classified as dangerous for carriage.

14.4 Packing group:

This product is not classified as dangerous for carriage.

14.5 Environmental hazards – MP:

This product is not classified as dangerous for carriage.

14.6 Special precautions for user:

This product is not classified as dangerous for carriage.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code:

This product is not classified as dangerous for carriage.

SECTION 15: REGULATORY INFORMATION

Specific regulations:

None

Other regulatory information authorisations and/or restrictions on use:

Transport Regulations:

Not classified as Hazardous according to the Global Harmonized System of Classification and Labelling of Chemicals (GHS).

15.2 Chemical safety assessment:

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16: OTHER INFORMATION

Modifications related to the previous security card which concerns the ways of managing risks:

Non-applicable

Texts of the legislative phrases mentioned in section 2:

Not classified as dangerous

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3.

Full text of H-phrases as mentioned in section 3:

Not applicable.

CLP Regulation (EC) n° 1272/2008:

Not classified as dangerous

Additional information:

The above information is obtained from supplier information and is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. All data and numbers represented are typical. These may vary dependent of origin production process, crop cycle, supplier or producer.

The company shall not be held liable for any damage resulting from handling or from contact with the above product. This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

The information contained in this safety data sheet is based on sources, technical knowledge and current legislation at European and state level, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

