

MATERIAL SAFETY DATA SHEET: NURTURE 60

According to 1907/2006/EC (REACH), 2015/830/EU



DATE OF COMPLETION: 17/07/18 VERSION2

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**1.1 Product identifier: Nurture 60 (AF Nurture 60)**

REACH Registration No: 01-211955297-30-0000.

EC Number: 919-670-9

CAS No: 94114-07-5

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

Relevant uses: Fertiliser, Technical purposes.

Uses advised against: All uses not specified in this section or in section 7.3

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.ukwww.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:**

EUH401 - To avoid risks to human health and the environment, comply with the instructions for use. Insufficient oxygen may be present in vessels containing the product due to the generation of carbon monoxide during possible fermentation.

Precautionary statements:**Prevention:**

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

Response:

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

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

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

As indicated in Annex XIII of Reg. CE 1907/2006, no PBT and vPvB evaluations have been carried out because the mixture has no PBT or vPvB classified materials.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**3.1/2 Substance:**

"Nurture, residue of fermentation containing biomass of Corynebacterium Glutamicum"

CAS/EC-nr	EC-nr	Name	Content %	Classification CLP
94114-07-5	919-670-9	Nurture	Not applicable	Not applicable

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This product is not a mixture.

3.3 Additional information

See full text of H phrases in section 16.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures:

Self-protection of the first aider: Ensure area is safe to enable first aid, if not then move the patient to a safe area.

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. If the person feels unwell, consult a doctor.

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

Acute and delayed effects are indicated in sections 2 and 11.

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

General information:

Inhalation:

Skin contact: The substance could cause slight skin irritation if prolonged contact

Eye contact:

Indication of any immediate medical attention and special treatment needed:

As regards the method of exposure: see paragraph 4.1

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

Product is non-flammable, with a low risk of fire due to the flammability characteristics of the product in normal conditions of storage, handling and use. In the case of the existence of sustained combustion as a result of improper handling, storage or use any type of extinguishing agent can be used (ABC Powder, water,...)

5.2 Special hazards arising from the substance or mixture:

Fermentation can yield carbon dioxide with possible traces of ethanol or volatile fatty acids (e.g. acetic, propionic, lactic, or butyric) and if exposed to a spark or flame may result in an explosion. These conditions should be avoided.

Decomposition products released in a fire should be considered as harmful.

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.

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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.

For emergency responders: Ensure PPE is worn. 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. Keep product away from drains, surface and ground water.

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: Recover as much product as possible by containing the material and using a vacuum tanker. For smaller spillages use absorbent materials to soak up the spillage. Sweep up solids and dispose into containers. Residue material to be washed away using water.

Other information: Disposal of waste must be through a registered and approved waste disposal company.

6.4 Reference to other sections:

Not applicable.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

A.- Precautions for safe manipulation

Comply with the current legislation concerning the prevention of industrial risks. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

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

It is recommended to transfer at a slow speed to avoid the creation of electrostatic charges that could affect flammable products. Consult section 10 for 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 not necessary to take special measures to prevent environmental risks. For more information see subsection 6.2

7.2 Conditions for safe storage, including any incompatibilities:

A.- Technical measures for storage

Material can ferment, especially if excessive moisture contamination is allowed. When stored in IBC, ensure proper ventilation to prevent quality deterioration.

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this Product. Refer to section 1.2

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		

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DNEL (General population):

Non-applicable

PNEC:

Non-applicable

8.2 Exposure controls:

Refer to section 7.2

8.2.1 Appropriate technical:

Ensure storage tanks have appropriate means to enable level measurement of product stored.

8.2.2 Personal protective equipment:

Eye/Face protection: If there is a risk of splashing, ensure splash proof safety glasses (EN166) are worn.

Skin protection: Impermeable chemical resistant gloves/gauntlets (EN374). Cotton type overalls/clothing. Barrier cream to be made available for persons suffering skin dryness/cracking.

Respiratory protection: Not applicable

Thermal hazards: Not applicable

8.2.3 Environmental exposure controls:

Ensure storage containers have adequate means to measure level of stored material to prevent overfilling.

If stored near water courses, rivers and drains ensure means of preventing spilled material entering these areas.

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: Syrupy liquid

Colour: Dark brown to black

Odour: Earthy

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: 1.25-1.3 g/cm³

Dynamic viscosity at 20 °C: Non-applicable *

Kinematic viscosity at 20 °C: 300-600

Concentration: Non-applicable *

pH: 4-5

Vapour density at 20 °C: Non-applicable *

Partition coefficient n-octanol/water 20 °C: Non-applicable *

Solubility in water at 20 °C: >38.7 g/L @ 20 °C

Solubility properties: Non-applicable *

Decomposition temperature: > 40 °C

Melting point/freezing point/flash point: Non-applicable *

Explosive properties: Non-applicable *

Oxidising properties: Non-applicable *

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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:

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

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.

10.5 Incompatible materials:

Can attack mild steel welded joints.

10.6 Hazardous decomposition products:

Carbon dioxide, alcohol or fatty acid vapours.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

Dangerous health implications:

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

A- Ingestion (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met
- Corrosivity/Irritability: Based on available data, the classification criteria are not met

B- Inhalation (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met
- Corrosivity/Irritability: Based on available data, the classification criteria are not met

C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Inconclusive evidence; no indications from many years of practical experience that the Nurture are capable of inducing skin sensitization in humans.
- Contact with the eyes: Based on available data, the classification criteria are not met

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D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met

IARC: Non-applicable

- Mutagenicity: Based on available data, the classification criteria are not met

- Reproductive toxicity: Based on available data, the classification criteria are not met

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met

- Cutaneous: Based on available data, the classification criteria are not met

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met

- Skin: Based on available data, the classification criteria are not met

H- Aspiration hazard:

Based on available data, the classification criteria are not met

Other information:

Non-applicable

Specific toxicology information on the substances:

Not available

SECTION 12: ECOLOGICAL INFORMATION

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

12.1 Toxicity:

LC50(96h)>58 mg/L (fish)

12.2 Persistence and degradability:

Readily biodegradable

12.3 Bioaccumulative potential:

Negligible

12.4 Mobility in soil:

The material is partly water soluble, therefore will be mobile within soil.

12.5 Results of PBT and vPvB assessment:

Product fails to meet PBT/vPvB criteria

12.6 Other adverse effects:

Based on available data Nurture is not classified for environmental effects

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

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.

SECTION 14: TRANSPORT INFORMATION

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

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14.1 UN Number:

See section 14.2 in accordance with UN shipping name

14.2 UN proper shipping name:

Nurture60 (Not classified as "Dangerous Goods")

14.3 Transport hazard class(es):

See section 14.2 in accordance with UN shipping name

14.4 Packing group:

See section 14.2 in accordance with UN shipping name

14.5 Environmental hazards – MP:

Relevant information in section 6 and 12 of this SDS

14.6 Special precautions for user:

Relevant information in sections 7 and 8 of this SDS

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

Not classified as 'dangerous goods'

SECTION 15: REGULATORY INFORMATION

EEC-Regulations:

1967/548 (1999/45); 1991/689 (2001/118); 1999/13; 2004/42; 648/20004;
1907/2006 (REACH); 1272/2008; 75/324 (2008/47); 453/2010

Transport Regulations:

DOT classification, ADR (2011); IMDG-Code (2011, 35. amdt); IATA-DGR (2012)
Not classified as Hazardous according to the Global Harmonized System of Classification and Labelling of Chemicals (GHS).

15.2 Chemical safety assessment:

Not applicable

SECTION 16: OTHER INFORMATION

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

H410 - To avoid risks to human health and the environment, comply with the instructions for use.

Insufficient oxygen may be present in vessels containing the product due to the generation of carbon monoxide during possible fermentation.

Acronyms and abbreviations

CAS Number - Chemical Abstracts Service:

CER – European Catalog of Wastes:

DNEL – Derivate level of non-effect (with no effect):

EC Number – EINECS (European Inventory of Existing Commercial Chemical Substances):

ECHA – European Chemical Agency:

GHS – Global Harmonised System of Classification and Labelling of Chemicals:

IUPAC – International Union of Pure and Applied Chemistry:

MEL – Maximum Exposure Limit:

NOAEL – (No observed adverse effect level) Doses without Observable Adverse Effects:

OECD – OCSE (Organisation for Economic Co-operation and Development):

PBT – Persistent Bio Accumulating and Toxic:

pc/g – Body Weight/Day

REACH – Registration, Evaluation and Authorisation of Chemicals:

TLV – Time Weighed Value:

TWA – Time Weighed Average:

vPvB – Very Persistent, Very Bio Accumulating:

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WEL - Workplace Exposure Limit:

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.

