

**SAFETY DATA SHEET**

Revision Date: 07.11.2016

Print Date: 17.12.2018

SDS Number: R0717610

Version: 2.1

Vital et™ biofunctional
 ™ Trademark, Ashland or its subsidiaries, registered
 in various countries
 832364

Conforms to EU Regulation 1907/2006/EC as amended. - SDSGHS_GB

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier**

Trade name : Vital et™
 biofunctional
 ™ Trademark, Ashland or its subsidiaries, registered in
 various countries

1.2 Recommended use of the chemical and restrictions on use

Use of the Substance/Mixture : Personal care

1.3 Details of the supplier of the safety data sheet

Ashland
 P.O. Box 8619
 NL3009 AP, Rotterdam
 Netherlands
 +31 10 497 5000 (in the Netherlands), or
 contact your local CSR contact person

EUSMT@ashland.com

1.4 Emergency telephone number

00-800-274-5263-3/001-859-357-3564, or contact
 your local emergency telephone number at 111 -
 ENG, SCO, CYM and 0808 808 8000 - NIE (Mo -
 Fr, 08.00 - 18.00)

Product Information

+31 10 497 5000 (in the Netherlands), or contact
 your local CSR contact person

SECTION 2: Hazards identification**2.1 Classification of the substance or mixture****Classification (REGULATION (EC) No 1272/2008)**

Chronic aquatic toxicity, Category 2

H411: Toxic to aquatic life with long lasting effects.

2.2 Label elements**Labelling (REGULATION (EC) No 1272/2008)**

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Hazard pictograms

:



Hazard statements

: H411

Toxic to aquatic life with long lasting effects.

Precautionary statements

: **Prevention:**

P273

Avoid release to the environment.

Response:

P391

Collect spillage.

Disposal:

P501

Dispose of contents/ container to an approved waste disposal plant.

2.3 Other hazards**Additional advice**

No information available.

SECTION 3: Composition/information on ingredients**3.2 Mixtures****Hazardous components**

Chemical Name	CAS-No. EC-No. Registration number	Classification (REGULATION (EC) No 1272/2008)	Concentration (%)
Vital ET	648891-82-1 01-0000018895-55-0000	Aquatic Chronic2; H411	>= 40 - < 50

For explanation of abbreviations see section 16.

SECTION 4: First aid measures**4.1 Description of first aid measures**

General advice

: Move out of dangerous area.
 Show this safety data sheet to the doctor in attendance.
 Do not leave the victim unattended.

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- If inhaled : If breathed in, move person into fresh air.
 If unconscious place in recovery position and seek medical advice.
 If symptoms persist, call a physician.
- In case of skin contact : Remove contaminated clothing. If irritation develops, get medical attention.
 If on skin, rinse well with water.
 First aid is not normally required. However, it is recommended that exposed areas be cleaned by washing with soap and water.
 Wash contaminated clothing before re-use.
- In case of eye contact : Flush eyes with water as a precaution.
 Remove contact lenses.
 Protect unharmed eye.
 If eye irritation persists, consult a specialist.
- If swallowed : Do not give milk or alcoholic beverages.
 Never give anything by mouth to an unconscious person.
 If symptoms persist, call a physician.

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms : No symptoms known or expected.

4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : No hazards which require special first aid measures.

SECTION 5: Firefighting measures**5.1 Extinguishing media**

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
 Water spray
 Foam
 Carbon dioxide (CO₂)
 Dry chemical

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Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products : carbon dioxide and carbon monoxide

5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

Specific extinguishing methods : Product is compatible with standard fire-fighting agents.

Further information : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures**6.1 Personal precautions, protective equipment and emergency procedures**

Personal precautions : Use personal protective equipment.
 Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.
 Comply with all applicable federal, state, and local regulations.

6.2 Environmental precautions

Environmental precautions : Prevent product from entering drains.
 Prevent further leakage or spillage if safe to do so.
 If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Keep in suitable, closed containers for disposal.



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6.4 Reference to other sections

For further information see Section 8 and Section 13 of the safety data sheet.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Do not breathe vapours/dust.
Do not smoke.
Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.
Container hazardous when empty.
Avoid exposure - obtain special instructions before use.
Avoid contact with skin and eyes.
Smoking, eating and drinking should be prohibited in the application area.
For personal protection see section 8.
Dispose of rinse water in accordance with local and national regulations.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Hygiene measures : Wash hands before breaks and at the end of workday.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Electrical installations / working materials must comply with the technological safety standards.

Other data : No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s) : No data available

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SECTION 8: Exposure controls/personal protection**8.1 Control parameters**

Contains no substances with occupational exposure limit values.

8.2 Exposure controls**Engineering measures**

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

Personal protective equipment

Eye protection : Not required under normal conditions of use. Wear splash-proof safety goggles if material could be misted or splashed into eyes.

Hand protection

Remarks : Neoprene gloves

The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Skin and body protection : Wear as appropriate:
 impervious clothing
 Safety shoes
 Choose body protection according to the amount and concentration of the dangerous substance at the work place.
 Discard gloves that show tears, pinholes, or signs of wear.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

Appearance : emulsion

Colour : tan, brown

Odour : Odorless

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Odour Threshold : No data available
 pH : 5,0 - 7,0
 Melting point/freezing point : 218,5 °C
 Boiling point/boiling range : 250 °C
 Flash point : Not applicable
 Evaporation rate : No data available
 Flammability (solid, gas) : No data available
 Upper explosion limit : No data available
 Lower explosion limit : No data available
 Vapour pressure : No data available
 Relative vapour density : No data available
 Relative density : No data available
 Density : 1 g/cm³ (20 °C)
 Solubility(ies)
 Water solubility : < 0,00001 g/l (20 °C)
 Solubility in other solvents : No data available
 Partition coefficient: n-octanol/water : No data available
 Thermal decomposition : No data available
 Viscosity
 Viscosity, dynamic : No data available
 Viscosity, kinematic : No data available
 Oxidizing properties : No data available

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9.2 Other information

No data available

SECTION 10: Stability and reactivity**10.1 Reactivity**

No decomposition if stored and applied as directed.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions : Product will not undergo hazardous polymerization.

10.4 Conditions to avoid**10.5 Incompatible materials****10.6 Hazardous decomposition products**

Hazardous decomposition products : No hazardous decomposition products are known.

SECTION 11: Toxicological information**11.1 Information on toxicological effects**

Information on likely routes of exposure : Inhalation
 Skin contact
 Eye Contact
 Ingestion

Acute toxicity

Not classified based on available information.

Components:

β-Alanine,N-(2-carboxyethyl)-N-dodecyl-, disodium salt, compd. with 3, 4-dihydro-2, 5, 7, 8-tetramethyl-2-(4, 8, 12-trimethyltridecy-

Acute oral toxicity : LD 50 (Rat): > 2.000 mg/kg

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Acute dermal toxicity : LD 50 (Rabbit): > 2.000 mg/kg

Skin corrosion/irritation

Not classified based on available information.

Product:

Remarks: May cause skin irritation in susceptible persons.

Components:

β-Alanine,N-(2-carboxyethyl)-N-dodecyl-, disodium salt, compd. with 3, 4-dihydro-2, 5, 7, 8-tetramethyl-2-(4, 8, 12-trimethyltridecy:

Result: Not irritating to skin

Serious eye damage/eye irritation

Not classified based on available information.

Product:

Remarks: Unlikely to cause eye irritation or injury.

Components:

β-Alanine,N-(2-carboxyethyl)-N-dodecyl-, disodium salt, compd. with 3, 4-dihydro-2, 5, 7, 8-tetramethyl-2-(4, 8, 12-trimethyltridecy:

Result: Not irritating to eyes

Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information.

Respiratory sensitisation: Not classified based on available information.

Product:

Remarks: May cause allergic skin reaction.

Components:

β-Alanine,N-(2-carboxyethyl)-N-dodecyl-, disodium salt, compd. with 3, 4-dihydro-2, 5, 7, 8-tetramethyl-2-(4, 8, 12-trimethyltridecy:

Assessment: Did not cause sensitisation on laboratory animals.

Germ cell mutagenicity

Not classified based on available information.

Components:

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β-Alanine,N-(2-carboxyethyl)-N-dodecyl-, disodium salt, compd. with 3, 4-dihydro-2, 5, 7, 8-tetramethyl-2-(4, 8, 12-trimethyltridecy:

Genotoxicity in vitro : Test Type: **Ames test**
 Result: **negative**

: Test Type: **Chromosome aberration test in vitro**
 Result: **negative**

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

Further information**Product:**

Remarks: No data available

SECTION 12: Ecological information
12.1 Toxicity**Product:**

Toxicity to fish : LC 50 (Oncorhynchus mykiss (rainbow trout)): > 11 mg/l
 Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC 50 (Water flea (Daphnia magna)): > 4,5 mg/l
 Exposure time: 48 h

Toxicity to algae : ErC50 (Green algae): 4,7 mg/l
 End point: Growth inhibition
 Exposure time: 72 h

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Analytical monitoring: yes

NOEC (Green algae): 0,49 mg/l

End point: Growth inhibition

Exposure time: 72 h

Analytical monitoring: yes

Components:

Vital ET

Toxicity to fish : LC 50 (Oncorhynchus mykiss (rainbow trout)): > 11,0 mg/l
 Exposure time: 96 h

Toxicity to daphnia and other : EC 50 (Water flea (Daphnia)): > 4,5 mg/l
 aquatic invertebrates Exposure time: 48 h

Toxicity to algae : EC 50 (Green algae): 1,9 mg/l
 End point: Biomass
 Exposure time: 72 h

12.2 Persistence and degradability**Product:**

Biodegradability : Remarks: Not readily biodegradable.

Components:

Vital ET

Biodegradability : Remarks: Not readily biodegradable.

12.3 Bioaccumulative potential**Product:**

Bioaccumulation : Remarks: The bioaccumulation potential cannot be determined.

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Not relevant

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12.6 Other adverse effects**Product:**

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Toxic to aquatic life with long lasting effects.

SECTION 13: Disposal considerations**13.1 Waste treatment methods**

Product : The product should not be allowed to enter drains, water courses or the soil.
 Do not contaminate ponds, waterways or ditches with chemical or used container.
 Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents.
 Dispose of as unused product.
 Empty containers should be taken to an approved waste handling site for recycling or disposal.
 Do not re-use empty containers.

SECTION 14: Transport information**SECTION 14: Transport information****14.1 UN number****ADN:** UN3082**ADR:** UN3082**INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO:** UN3082**INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER:** UN3082**INTERNATIONAL MARITIME DANGEROUS GOODS:** UN3082**RID:** UN3082**14.2 UN proper shipping name**

ADN: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DISODIUM LAURIMINODIPROPIONATE TOCOPHERYL PHOSPHATES)

ADR: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DISODIUM LAURIMINODIPROPIONATE TOCOPHERYL PHOSPHATES)



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INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO: Environmentally hazardous substance, liquid, n.o.s. (DISODIUM LAURIMINODIPROPIONATE TOCOPHERYL PHOSPHATES)

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER: Environmentally hazardous substance, liquid, n.o.s. (DISODIUM LAURIMINODIPROPIONATE TOCOPHERYL PHOSPHATES)

INTERNATIONAL MARITIME DANGEROUS GOODS: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DISODIUM LAURIMINODIPROPIONATE TOCOPHERYL PHOSPHATES)

RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (DISODIUM LAURIMINODIPROPIONATE TOCOPHERYL PHOSPHATES)

14.3 Transport hazard class(es)

ADN: 9

ADR: 9

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO: 9

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER: 9

INTERNATIONAL MARITIME DANGEROUS GOODS: 9

RID: 9

14.4 Packing group

ADN: III

ADR: III

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO: III

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER: III

INTERNATIONAL MARITIME DANGEROUS GOODS: III

RID: III

14.5 Environmental hazards

ADN: Not applicable

ADR: Not applicable

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO: Not applicable

INTERNATIONAL MARITIME DANGEROUS GOODS: Not applicable

RID: Not applicable

14.6 Special precautions for user

Not applicable

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

Ship Type: Not applicable

Hazard code(s): Not applicable

Pollutant Category: Not applicable

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Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 57). : Not applicable

REACH - List of substances subject to authorisation (Annex XIV) : Not applicable

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) : Not applicable

Regulation (EC) No 850/2004 on persistent organic pollutants : Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

		Quantity 1	Quantity 2
E2	ENVIRONMENTAL HAZARDS	200 t	500 t

The components of this product are reported in the following inventories:

TSCA : Exempt

DSL This product contains the following components that are not on the Canadian DSL nor NDSL.

AICS Not in compliance with the inventory

ENCS Personal care

KECI Personal care

PICCS Not in compliance with the inventory

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IECSC

Not in compliance with the inventory

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

15.2 Chemical Safety Assessment

No data available

SECTION 16: Other information**Further information**

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Full text of H-Statements referred to under sections 2 and 3.

H411 Toxic to aquatic life with long lasting effects.

Further information

Other information

: The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Ashland's Environmental Health and Safety Department (+31 10 497 5000).

Sources of key data used to compile the Safety Data Sheet

Ashland internal data including own and sponsored test reports

The UNECE administers regional agreements implementing harmonised classification for labelling (GHS) and transport.

List of abbreviations and acronyms that could be, but not necessarily are, used in this safety data sheet :

ACGIH : American Conference of Industrial Hygienists

BEI : Biological Exposure Index

CAS : Chemical Abstracts Service (Division of the American Chemical Society).

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CMR : Carcinogenic, Mutagenic or Toxic for Reproduction

FG : Food grade

GHS : Globally Harmonized System of Classification and Labeling of Chemicals.

H-statement : Hazard Statement

IATA : International Air Transport Association.

IATA-DGR : Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

ICAO : International Civil Aviation Organization

ICAO-TI (ICAO) : Technical Instructions by the "International Civil Aviation Organization"

IMDG : International Maritime Code for Dangerous Goods

ISO : International Organization for Standardization

logPow : octanol-water partition coefficient

LCxx : Lethal Concentration, for xx percent of test population

LDxx : Lethal Dose, for xx percent of test population.

ICxx : Inhibitory Concentration for xx of a substance

Ecxx : Effective Concentration of xx

N.O.S.: Not Otherwise Specified

OECD : Organization for Economic Co-operation and Development

OEL : Occupational Exposure Limit

P-Statement : Precautionary Statement

PBT : Persistent , Bioaccumulative and Toxic

PPE : Personal Protective Equipment

STEL : Short-term exposure limit

STOT : Specific Target Organ Toxicity

TLV : Threshold Limit Value

TWA : Time-weighted average

vPvB : Very Persistent and Very Bioaccumulative

WEL : Workplace Exposure Level

ABM : Water Hazard Class for the Netherlands

ADR : Agreement concerning the International Carriage of Dangerous Goods by Road.

ADNR: Regulation for the Carriage of Dangerous Substances on the Rhine

CLP : Classification, Labelling and Packaging

CSA : Chemical Safety Assessment

CSR : Chemical Safety Report

DNEL : Derived No Effect Level.

EINECS : European Inventory of Existing Commercial Chemical Substances.

ELINCS : European List of Notified Chemical Substances

GV: Exposure limits (DK)

PEC : Predicted Effect Concentration

PEL : Permissible Exposure Limits

PNEC : Predicted No Effect Concentration

R-pharse : Risk phrase

REACH : Registration, Evaluation, Authorisation and Restriction of Chemicals

RID : Regulation Concerning the International Transport of Dangerous Goods by Rail

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S-phrase: Safety phrase

WGK : German Water Hazard Class