

This safety data sheet was created pursuant to the requirements of:
UK REACH Regulations (SI 2019/758 as amended)

Supersedes date 18-Nov-2021***

Revision date 11-Oct-2023

Revision Number 2

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product Code(s) 63056***
Safety data sheet number 63056***
Product Name SAVINASE EVITY 16 L

Pure substance/mixture Mixture***

Contains SUBTILISIN

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

Recommended use Enzyme Biocatalyst Industrial application Consumer use***

1.3. Details of the supplier of the safety data sheet

Supplier

Univar Solutions UK Ltd
Aquarius House
6 Mid Point Business Park
Bradford
GBR

For further information, please contact

E-mail address SDS.EMEA@univarsolutions.com
Non-Emergency Telephone Number +44 1274 267300 / +44 1274 267306

1.4. Emergency telephone number

Emergency Telephone SGS - +32 (0)3 575 55 55 (24h)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Serious eye damage/eye irritation	Category 2*** - (H319)***
Respiratory sensitisation	Category 1*** - (H334)***
Chronic aquatic toxicity	Category 3*** - (H412)***

2.2. Label elements

Contains SUBTILISIN



Signal word

Danger***

Hazard statements

H319 - Causes serious eye irritation

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

H412 - Harmful to aquatic life with long lasting effects***

EUH208 -*** Contains DISUBSTITUTED ALANINAMIDE. May produce an allergic reaction.***

Precautionary statements

P261 - Avoid breathing dust/fume/gas/mist/vapours/spray

P280 - Wear eye protection/ face protection

P304 + P340 - IF INHALED: Remove person to fresh air and keep 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

P310 - Immediately call a POISON CENTER or doctor

P501 - Dispose of contents/ container to an approved waste disposal plant***

Additional information

This product requires tactile warnings if supplied to the general public.***

2.3. Other hazards

Causes mild skin irritation.***

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable***

3.2 Mixtures***

Chemical name	Weight-%	EC No (EU Index No)	UK REACH registration number	Classification according to GB CLP (SI 2020/1567 as amended)	Specific concentration limit (SCL)	M-Factor	M-Factor (long-term)
SUBTILISIN*** 9014-01-1	2.5 - < 5%	232-752-2***	-	Aquatic Chronic 2 (H411) Aquatic Acute 1 (H400) Resp. Sens. 1 (H334) Acute Tox. 4 (H302) Skin Irrit. 2 (H315) STOT SE 3 (H335) Eye Dam. 1 (H318)***	-	1***	-
DISUBSTITUTED ALANINAMIDE***	0.1 - < 1%	938-640-6***	-	Skin Sens. 1B (H317)***	-	-	-

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Full text of H- and EUH-phrases: see section 16

This product does not contain candidate substances of very high concern at a concentration $\geq 0.1\%$ (UK REACH Article 59)

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

General advice	Show this safety data sheet to the doctor in attendance.***
Inhalation	May cause allergic respiratory reaction. If breathing has stopped, give artificial respiration. Get medical attention immediately. Remove to fresh air. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Get immediate medical attention.***
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.***
Skin contact	Take off contaminated clothing and wash it before reuse. Wash with soap and water. May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a doctor.***
Ingestion	May produce an allergic reaction. Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Get immediate medical attention.***
Self-protection of the first aider	Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid contact with skin, eyes or clothing. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Use personal protective equipment as required. See section 8 for more information.***

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

Symptoms	May cause allergy or asthma symptoms or breathing difficulties if inhaled. Coughing and/ or wheezing. Itching. Rashes. Hives. May cause redness and tearing of the eyes. Burning sensation. Prolonged contact may cause redness and irritation.***
Inhalation	Coughing and/ or wheezing. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain, or flushing.***
Eyes	Burning sensation. May cause redness and tearing of the eyes.***
Dermal	Prolonged contact may cause redness and irritation.***
Ingestion	May cause irritation***

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

Note to doctors	May cause sensitisation in susceptible persons. Treat symptomatically.***
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SECTION 5: Firefighting measures**5.1. Extinguishing media**

Suitable Extinguishing Media	Water spray. Alcohol resistant foam. Dry chemical or CO ₂ .***
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Large Fire

CAUTION: Use of water spray when fighting fire may be inefficient.

Unsuitable extinguishing media

Do not scatter spilled material with high pressure water streams.

5.2. Special hazards arising from the substance or mixture**Specific hazards arising from the chemical**

Product is or contains a sensitiser. May cause sensitisation by inhalation.***

5.3. Advice for firefighters**Special protective equipment and precautions for fire-fighters**

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

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

Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Avoid generation of dust.***

Other information

Refer to protective measures listed in Sections 7 and 8.***

For emergency responders

Use personal protection recommended in Section 8.

6.2. Environmental precautions**Environmental precautions**

Prevent further leakage or spillage if safe to do so.***

6.3. Methods and material for containment and cleaning up**Methods for containment**

Avoid handling which leads to dust formation. Prevent further leakage or spillage if safe to do so.***

Methods for cleaning up

Take up mechanically, placing in appropriate containers for disposal.

Prevention of secondary hazards

Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections**Reference to other sections**

See section 8 for more information. See section 13 for more information.

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Do not eat, drink or smoke when using this product. Avoid handling which leads to dust formation.***

General hygiene considerations

Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Remove contaminated clothing and protective equipment before entering eating areas.***

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up.
Keep out of the reach of children.***

7.3. Specific end use(s)**Specific use(s)**

See section 1 for more information.

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

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

Chemical name	United Kingdom
SUBTILISIN*** 9014-01-1	TWA: 0.00004 mg/m ³ STEL: 0.00012 mg/m ³ Sen+***

Biological occupational exposure limits

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL) - Workers ***

Chemical name	Oral	Dermal	Inhalation
SUBTILISIN*** 9014-01-1		0.2 % [5] [7]***	

[5]

Local health effects.***

[7]

Short term.***

Derived No Effect Level (DNEL) - General Public ***

Chemical name	Oral	Dermal	Inhalation
SUBTILISIN*** 9014-01-1	1.8 mg/kg bw/day [4] [6] 3.6 mg/kg bw/day [4] [7]***		

[4]

Systemic health effects.***

[6]

Long term.***

[7]

Short term.***

Predicted No Effect Concentration (PNEC) ***

Chemical name	Freshwater	Freshwater (intermittent release)	Marine water	Marine water (intermittent release)	Air
SUBTILISIN*** 9014-01-1	0.06 µg/l***	0.9 µg/L ***	0.006 µg/l***		

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
SUBTILISIN*** 9014-01-1			65000 µg/L***	568 µg/kg soil dw***	65000 µg/l***

8.2. Exposure controls

Engineering controls Ensure adequate ventilation.***

Personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles). Tight sealing safety goggles. Use eye protection according to EN 166.***

Hand protection Wear suitable gloves. Gloves must conform to standard EN 374.***

Gloves			
Duration of contact	PPE - Glove material	Glove thickness	Break through time
Long term (repeated)***	Nitrile rubber***	> 0.3 mm***	> 4 hours***
Long term (repeated)***	Neoprene gloves***	> 0.3 mm***	> 4 hours***

Skin and body protection Wear suitable protective clothing.***

Respiratory protection In case of inadequate ventilation wear respiratory protection. Use respiratory equipment with particle filter, type P3.***

General hygiene considerations Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Remove contaminated clothing and protective equipment before entering eating areas.***

Environmental exposure controls Local authorities should be advised if significant spillages cannot be contained.***

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid***
Appearance	Liquid***
Colour	amber***
Odour	Slight.***
Odour threshold	No information available

Property	Values	Remarks • Method
Melting point / freezing point		No information available
Initial boiling point and boiling range		No information available
Flammability		No information available
Flammability Limit in Air		No information available
Upper flammability or explosive limits		
Lower flammability or explosive limits		
Flash point	>*** 100*** °C***	No information available
Autoignition temperature		No information available
Decomposition temperature		No information available
pH	4*** -*** 9***	No information available

pH (as aqueous solution)		No information available
Kinematic viscosity		No information available
Dynamic viscosity		No information available
Water solubility	Soluble in water***	No information available
Solubility(ies)		No information available
Partition coefficient		No information available
Vapour pressure		No information available
Relative density		No information available
Bulk density		
Liquid Density	1.16 g/mL***	
Relative vapour density		No information available
Particle characteristics		No information available
Particle Size		
Particle Size Distribution		
Explosive properties	No data available***	
Oxidising properties	No data available***	

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity No information available.

10.2. Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

10.4. Conditions to avoid

Conditions to avoid None known based on information supplied.

10.5. Incompatible materials

Incompatible materials None known based on information supplied.***

10.6. Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Information on likely routes of exposure

Product Information ***

Inhalation

Specific test data for the substance or mixture is not available. May cause sensitisation in susceptible persons. (based on components). May cause irritation of respiratory tract.***

Eye contact	Causes serious eye irritation. May cause redness, itching, and pain. On basis of test data.***
Skin contact	Specific test data for the substance or mixture is not available. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. (based on components). May cause irritation. Prolonged contact may cause redness and irritation. Causes mild skin irritation.***
Ingestion	Specific test data for the substance or mixture is not available. May cause additional affects as listed under "Inhalation". May cause irritation.***

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms	Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain, or flushing. Coughing and/ or wheezing. May cause redness and tearing of the eyes. Prolonged contact may cause redness and irritation.***
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Acute toxicity

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document ***

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
SUBTILISIN***	= 504 mg/kg (Rat) ***	-	-
DISUBSTITUTED ALANINAMIDE***	> 2000 mg/kg (Rat) ***	-	-

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

Skin corrosion/irritation	Classification based on data available for ingredients. Causes mild skin irritation.***
Serious eye damage/eye irritation	Causes serious eye irritation. On basis of test data.***
Respiratory or skin sensitisation	The product contains a sensitising substance which may provoke an allergic reaction among sensitive individuals. May cause allergy or asthma symptoms or breathing difficulties if inhaled.***
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	No information available.
STOT - single exposure	No information available.

STOT - repeated exposure No information available.

Aspiration hazard No information available.

Other adverse effects No information available.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity Harmful to aquatic life with long lasting effects.***

SUBTILISIN (9014-01-1)

Method	Species	Endpoint type	Effective dose	Exposure time	Results
OECD Test No. 202: Daphnia sp., Acute Immobilisation Test***	Daphnia magna***	EC50***	0.586 mg/L***	48 hours***	Very toxic to aquatic life***
OECD Test No. 203: Fish, Acute Toxicity Test***	Fish***	LC50***	8.2 mg/L***	96 hours***	Toxic to aquatic life***
OECD Test No. 201: Freshwater Algae and Cyanobacteria, Growth Inhibition Test***	Algae***	ErC50***	0.83 mg/L***	72 hours***	Very toxic to aquatic life***

DISUBSTITUTED ALANINAMIDE (1189108-44-8)

Method	Species	Endpoint type	Effective dose	Exposure time	Results
OECD Test No. 202: Daphnia sp., Acute Immobilisation Test***	Daphnia magna***	EC50***	> 88.4 mg/L***	48 hours***	
OECD Test No. 201: Freshwater Algae and Cyanobacteria, Growth Inhibition Test***	Algae***	NOEC***	> 100 mg/L***	72 hours***	Harmless to aquatic organisms up to the tested concentration***

12.2. Persistence and degradability

Persistence and degradability No information available.***

12.3. Bioaccumulative potential

Bioaccumulation No information available.***

Component Information

Chemical name	Partition coefficient
SUBTILISIN***	< 0***
DISUBSTITUTED ALANINAMIDE***	1.8***

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment The product does not contain any substance(s) classified as PBT or vPvB.

Chemical name	PBT and vPvB assessment
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SUBTILISIN***	The substance is not PBT / vPvB***
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12.6. Other adverse effects

No information available.

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

Waste from residues/unused products	Waste is classified as hazardous waste. Disposal to licensed waste disposal site in accordance with the local Waste Disposal Authority.***
Contaminated packaging	Do not reuse empty containers.

SECTION 14: Transport information**IATA**

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None

IMDG

14.1 UN number or ID number	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None
14.7 Maritime transport in bulk according to IMO instruments	No information available

RID

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None

ADR

14.1 UN number or ID number	Not regulated
14.2 UN proper shipping name	Not regulated
14.3 Transport hazard class(es)	Not regulated
14.4 Packing group	Not regulated
14.5 Environmental hazards	Not applicable
14.6 Special precautions for user	
Special Provisions	None

SECTION 15: Regulatory information

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

Authorisations and/or restrictions on use:

This product contains one or more substances subject to restriction (UK REACH - Annex XVII).

This product does not contain substances subject to authorisation (UK REACH - Annex XIV).***

Product restricted per REACH Annex XVII: 3***

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorisation per REACH Annex XIV
SUBTILISIN*** - 9014-01-1	75***	-

Persistent Organic Pollutants

Not applicable

Export Notification requirements

Not applicable

Named dangerous substances per COMAH Regulations 2015 (as amended)

Not applicable

The Ozone-Depleting Substances Regulations 2015

Not applicable

The Biocidal Products Regulations 2001 (as amended)

Not applicable

The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 (as amended)

Not applicable

Poisons Act 1972 (Explosive Precursors) Regulations (as Amended)

Not applicable

International Inventories

TSCA	Contact supplier for inventory compliance status
DSL/NDL	Contact supplier for inventory compliance status
EINECS/ELINCS	Contact supplier for inventory compliance status
ENCS	Contact supplier for inventory compliance status
IECSC	Contact supplier for inventory compliance status
KECL	Contact supplier for inventory compliance status
PICCS	Contact supplier for inventory compliance status
AIIC	Contact supplier for inventory compliance status
NZIoC	Contact supplier for inventory compliance status

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AIIC - Australian Inventory of Industrial Chemicals
NZIoC - New Zealand Inventory of Chemicals

15.2. Chemical safety assessment**Chemical Safety Report**

No information available

SECTION 16: Other information

Key or legend to abbreviations and acronyms used in the safety data sheet

Full text of H-Statements referred to under section 3

H302 - Harmful if swallowed
 H315 - Causes skin irritation
 H317 - May cause an allergic skin reaction
 H318 - Causes serious eye damage
 H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
 H335 - May cause respiratory irritation
 H400 - Very toxic to aquatic life
 H411 - Toxic to aquatic life with long lasting effects***

Legend

SVHC: Substances of Very High Concern for Authorisation:

Legend Section 8: Exposure controls/personal protection

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
+	Sensitisers		

Revision Note ***Indicates updated data since last publication

Classification procedure

Classification according to Regulation (EC) No. 1272/2008 [CLP]	Method Used
Acute oral toxicity***	Calculation method***
Acute dermal toxicity***	Calculation method***
Acute inhalation toxicity - gas***	Calculation method***
Acute inhalation toxicity - vapour***	Calculation method***
Acute inhalation toxicity - dust/mist***	Calculation method***
Skin corrosion/irritation***	Calculation method***
Serious eye damage/eye irritation***	On basis of test data***
Respiratory sensitisation***	Calculation method***
Skin sensitisation***	Calculation method***
Mutagenicity***	Calculation method***
Carcinogenicity***	Calculation method***
Reproductive toxicity***	Calculation method***
STOT - single exposure***	Calculation method***
STOT - repeated exposure***	Calculation method***
Acute aquatic toxicity***	Calculation method***
Chronic aquatic toxicity***	Calculation method***
Aspiration hazard***	Calculation method***
Ozone***	Calculation method***

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR)
 U.S. Environmental Protection Agency ChemView Database
 European Food Safety Authority (EFSA)
 European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA_RAC)
 European Chemicals Agency (ECHA) (ECHA_API)
 EPA (Environmental Protection Agency)
 Acute Exposure Guideline Level(s) (AEGL(s))
 U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
 U.S. Environmental Protection Agency High Production Volume Chemicals
 Food Research Journal
 Hazardous Substance Database
 International Uniform Chemical Information Database (IUCLID)
 National Institute of Technology and Evaluation (NITE)
 Australian National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
 NIOSH (National Institute for Occupational Safety and Health)

National Library of Medicine's ChemID Plus (NLM CIP)
National Library of Medicine's PubMed database (NLM PUBMED)
National Toxicology Program (NTP)
New Zealand's Chemical Classification and Information Database (CCID)
Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications
Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme
Organisation for Economic Co-operation and Development Screening Information Data Set
World Health Organization

Prepared By N Bajaj***
Supersedes date 18-Nov-2021***
Revision date 11-Oct-2023

This material safety data sheet complies with the requirements of UK REACH Regulations (SI 2019/758 as amended)
Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet