

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

1.1. Product identifier

Product form : Mixture
 Name : Dodine 544 g/L SC
 Trade name : SYLLIT 544 SC

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

1.2.1. Relevant identified uses

Main use category : Professional use
 Industrial/Professional use spec : Plant protection products
 Use of the substance/mixture : Fungicide

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Manufacturer

Arysta LifeScience Benelux
 Rue de Renory 26/1
 B-4102 Ougrée - Belgium
 T +32 (0)4 385 97 11
sds.info@upl-ltd.com - <http://www.upl-ltd.com/be>

1.4. Emergency telephone number

Emergency number : Europe/Rest of the world (English): +44(0)1235 239670

Country	Organisation/Company	Address	Emergency number	Comment
Sweden	Giftinformationscentralen Swedish Poisons Information Centre, Karolinska Hospital	Box 60 500 SE-171 76 Stockholm	112 – Begär Giftinformation (National)	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute toxicity (oral), Category 4 H302
 Acute toxicity (inhalation:dust,mist) Category 4 H332
 Skin corrosion/irritation, Category 2 H315
 Serious eye damage/eye irritation, Category 1 H318
 Hazardous to the aquatic environment — Acute Hazard, Category 1 H400
 Hazardous to the aquatic environment — Chronic Hazard, Category 1 H410
 Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

Harmful if inhaled. Harmful if swallowed. Causes skin irritation. Causes serious eye damage. Very toxic to aquatic life with long lasting effects.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



GHS05

GHS07

GHS09

CLP Signal word

: Danger

Hazardous ingredients

: dodine(ISO); dodecylguanidinium acetate; Ethoxylated oleyl amine, dodecylbenzenesulfonic salt

Hazard statements (CLP)

: H302+H332 - Harmful if swallowed or if inhaled.
 H315 - Causes skin irritation.
 H318 - Causes serious eye damage.
 H410 - Very toxic to aquatic life with long lasting effects.

SYLLIT 544 SC

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Precautionary statements (CLP)	: P270 - Do not eat, drink or smoke when using this product. P280 - Wear protective gloves, eye protection, face protection. P261 - Avoid breathing spray. P301+P312 - IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. P302+P352 - IF ON SKIN: Wash with plenty of water/.... P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338+P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER, a doctor. P332+P313 - If skin irritation occurs: Get medical advice/attention. P501 - Dispose of contents/container to an approved waste disposal plant.
EUH-statements	: EUH401 - To avoid risks to human health and the environment, comply with the instructions for use.
Extra phrases	: SP 1 - Do not contaminate water with the product or its container (Do not clean application equipment near surface water/Avoid contamination via drains from farmyards and roads).

2.3. Other hazards

Other hazards not contributing to the classification : This mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
dodine(ISO); dodecylguanidinium acetate	(CAS-No.) 2439-10-3 (EC-No.) 219-459-5 (EC Index-No.) 607-076-00-X	53	Acute Tox. 4 (Oral), H302 Acute Tox. 2 (Inhalation:dust,mist), H330 Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=10)
Ethoxylated oleyl amine, dodecylbenzenesulfonic salt	(CAS-No.) 66467-20-7	< 5	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Chronic 2, H411
1,2-benzisothiazol-3(2H)-one	(CAS-No.) 2634-33-5 (EC-No.) 220-120-9 (EC Index-No.) 613-088-00-6 (REACH-no) 01-2120761540-60	< 1	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 2, H411
Sodium hydroxide substance with national workplace exposure limit(s) (SE)	(CAS-No.) 1310-73-2 (EC-No.) 215-185-5 (EC Index-No.) 011-002-00-6 (REACH-no) 01-2119457892-27	< 1	Met. Corr. 1, H290 Skin Corr. 1A, H314 Eye Dam. 1, H318

Specific concentration limits:

Name	Product identifier	Specific concentration limits
1,2-benzisothiazol-3(2H)-one	(CAS-No.) 2634-33-5 (EC-No.) 220-120-9 (EC Index-No.) 613-088-00-6 (REACH-no) 01-2120761540-60	(0,05 =<C < 100) Skin Sens. 1, H317
Sodium hydroxide	(CAS-No.) 1310-73-2 (EC-No.) 215-185-5 (EC Index-No.) 011-002-00-6 (REACH-no) 01-2119457892-27	(0,5 =<C < 2) Eye Irrit. 2, H319 (0,5 =<C < 2) Skin Irrit. 2, H315 (2 =<C < 5) Skin Corr. 1B, H314 (5 =<C < 100) Skin Corr. 1A, H314

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Call a poison center or a doctor if you feel unwell.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Call a poison center or a doctor if you feel unwell.

SYLLIT 544 SC

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

First-aid measures after skin contact	: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
First-aid measures after ingestion	: Rinse mouth. Call a poison center or a doctor if you feel unwell.

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

Symptoms/effects after skin contact	: Irritation.
Symptoms/effects after eye contact	: Serious damage to eyes.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment	: Collect spillage.
Methods for cleaning up	: Take up liquid spill into absorbent material.
Other information	: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes. Wear personal protective equipment.
Handling temperature	: Store at room temperature
Hygiene measures	: Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Store in a well-ventilated place.
Maximum storage period	: 2 year(s)

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Sodium hydroxide (1310-73-2)

Sweden - Occupational Exposure Limits

Local name	Natriumhydroxid
nivågränsvärde (NVG) (mg/m ³)	1 mg/m ³ inhalerbar fraktion
kortidsvärde (KTV) (mg/m ³)	2 mg/m ³ inhalerbar fraktion
Anmärkning (SE)	3 (Med inhalerbar fraktion menas den mängd partiklar, av totalmängden partiklar i luften, som man inandas genom näsa och mun)

SYLLIT 544 SC

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Sodium hydroxide (1310-73-2)

Regulatory reference	Hygieniska gränsvärden (AFS 2018:1)
----------------------	-------------------------------------

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Opaque. Viscous.
Colour	: white.
Odour	: Mild chemical odour.
Odour threshold	: Not applicable Not applicable
pH	: ≈ 6,49
Relative evaporation rate (butylacetate=1)	: Not applicable
Relative evaporation rate (ether=1)	: Not applicable
Melting point	: Not applicable
Freezing point	: Not applicable
Boiling point	: Not applicable
Flash point	: > 79 °C
Auto-ignition temperature	: 404 °C
Decomposition temperature	: Not applicable
Flammability (solid, gas)	: Not applicable
Vapour pressure	: Not applicable
Relative vapour density at 20 °C	: No data available
Relative density	: 1,0287
Density	: 1,0287 g/ml (20°C)
Solubility	: Not applicable.
Log Pow	: Not applicable
Viscosity, kinematic	: No data available
Viscosity, dynamic	: 196 - 1750 mPa·s (40°C)
Explosive properties	: The study does not need to be conducted because there are no chemical groups associated with explosive properties present in the molecule.
Oxidising properties	: Non oxidizing.
Explosive limits	: Not applicable

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

SYLLIT 544 SC

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Harmful if swallowed.
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Harmful if inhaled.

SYLLIT 544 SC

LD50 oral rat	> 300 (≤ 2000) mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 inhalation rat (mg/l)	> 1 (≤ 5) mg/l/4h
ATE CLP (dust,mist)	5 mg/l/4h

dodine(ISO); dodecylguanidinium acetate (2439-10-3)

LD50 oral rat	851 mg/kg
LD50 dermal rat	> 5000 mg/kg
LC50 inhalation rat (Dust/Mist - mg/l/4h)	> 0,45 mg/l/4h

Ethoxylated oleyl amine, dodecylbenzenesulfonic salt (66467-20-7)

LD50 oral rat	505,05 mg/kg
---------------	--------------

1,2-benzisothiazol-3(2H)-one (2634-33-5)

LD50 oral rat	490 mg/kg
LD50 dermal rat	> 2000 mg/kg

Skin corrosion/irritation	: Causes skin irritation. pH: ≈ 6,49
Serious eye damage/irritation	: Causes serious eye damage. pH: ≈ 6,49
Respiratory or skin sensitisation	: Not classified.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: Very toxic to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute)	: Very toxic to aquatic life.
Hazardous to the aquatic environment, long-term (chronic)	: Very toxic to aquatic life with long lasting effects.

SYLLIT 544 SC

LC50 fish	3,4 mg/l (96h)
EC50 Daphnia	0,123 mg/l (48h semi-static)

SYLLIT 544 SC

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

ErC50 (algae)	0,022 mg/l (72h)
---------------	------------------

dodine(ISO); dodecylguanidinium acetate (2439-10-3)

LC50 fish	0,6 mg/l (96h Cyprinus carpio)
EC50 Daphnia	0,018 mg/l (48h Daphnia magna; flow-through; a.i.)
ErC50 (algae)	0,0044 mg/l (120h Selenastrum capricornutum - growth rate)
NOEC chronic fish	0,099 mg/l (30d Pimephales promelas)
NOEC chronic crustacea	0,0044 mg/l (21d Daphnia magna)

1,2-benzisothiazol-3(2H)-one (2634-33-5)

LC50 fish	2,15 mg/l/96h ((OECD 203 method), Oncorhynchus mykiss)
EC50 Daphnia	2,9 mg/l/48h ((OECD 202 method), Daphnia magna)
ErC50 (algae)	0,11 mg/l/72h ((OECD 201 method), Selenastrum capricornutum)
NOEC chronic algae	0,0403 mg/l/72h ((OECD 201 method), Selenastrum capricornutum)

Sodium hydroxide (1310-73-2)

LC50 fish	35 - 189 mg/l
-----------	---------------

12.2. Persistence and degradability

dodine(ISO); dodecylguanidinium acetate (2439-10-3)

Persistence and degradability	Not readily biodegradable.
-------------------------------	----------------------------

12.3. Bioaccumulative potential

SYLLIT 544 SC

Log Pow	Not applicable
---------	----------------

dodine(ISO); dodecylguanidinium acetate (2439-10-3)

Log Pow	1,25 - 1,33 (20°C pH=4.9 - 9.1)
---------	---------------------------------

1,2-benzisothiazol-3(2H)-one (2634-33-5)

Log Pow	0,7 (20 °C)
---------	-------------

12.4. Mobility in soil

SYLLIT 544 SC

Surface tension	21,4 (19,1 - 21,4) mN/m (12% v/v; 20°C)
-----------------	---

dodine(ISO); dodecylguanidinium acetate (2439-10-3)

Surface tension	50,6 mN/m (20°C)
-----------------	------------------

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
European List of Waste (LoW) code : 02 01 08* - agrochemical waste containing dangerous substances

SECTION 14: Transport information



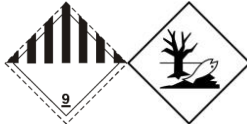
In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA
14.1. UN number		
UN 3082	UN 3082	UN 3082

SYLLIT 544 SC

Safety Data Sheet

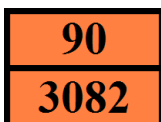
according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

14.2. UN proper shipping name		
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	Environmentally hazardous substance, liquid, n.o.s.
Transport document description		
UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Dodine), 9, III, (E)	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Dodine), 9, III, MARINE POLLUTANT	UN 3082 Environmentally hazardous substance, liquid, n.o.s. (Dodine), 9, III
14.3. Transport hazard class(es)		
9	9	9
		
14.4. Packing group		
III	III	III
14.5. Environmental hazards		
Dangerous for the environment : Yes	Dangerous for the environment : Yes Marine pollutant : Yes	Dangerous for the environment : Yes
No supplementary information available		

14.6. Special precautions for user

Overland transport

Classification code (ADR)	: M6
Special provisions (ADR)	: 274, 335, 601
Limited quantities (ADR)	: 5I
Excepted quantities (ADR)	: E1
Packing instructions (ADR)	: P001, IBC03, LP01, R001
Special packing provisions (ADR)	: PP1
Mixed packing provisions (ADR)	: MP19
Portable tank and bulk container instructions (ADR)	: T4
Portable tank and bulk container special provisions (ADR)	: TP1, TP29
Tank code (ADR)	: LGBV
Vehicle for tank carriage	: AT
Transport category (ADR)	: 3
Special provisions for carriage - Packages (ADR)	: V12
Special provisions for carriage - Loading, unloading and handling (ADR)	: CV13
Hazard identification number (Kemler No.)	: 90
Orange plates	:



Tunnel restriction code : E

Transport by sea

Special provisions (IMDG)	: 274, 335
Limited quantities (IMDG)	: 5 L
Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	: P001, LP01
Special packing provisions (IMDG)	: PP1
IBC packing instructions (IMDG)	: IBC03
Tank instructions (IMDG)	: T4
Tank special provisions (IMDG)	: TP2, TP29
EmS-No. (Fire)	: F-A
EmS-No. (Spillage)	: S-F

SYLLIT 544 SC

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Stowage category (IMDG) : A

Air transport

PCA Excepted quantities (IATA) : E1
PCA Limited quantities (IATA) : Y964
PCA limited quantity max net quantity (IATA) : 30kgG
PCA packing instructions (IATA) : 964
PCA max net quantity (IATA) : 450L
CAO packing instructions (IATA) : 964
CAO max net quantity (IATA) : 450L
Special provisions (IATA) : A97, A158
ERG code (IATA) : 9L

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Directive 2012/18/EU (SEVESO III)

Seveso Additional information : Directive 2012/18/EU (SEVESO III): E1 Hazardous to the Aquatic Environment in Category Acute 1 or Chronic 1

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:

Section	Changed item	Change	Comments
	Extra phrases	Modified	
1.1	Trade name	Modified	
2.2	EUH-statements	Modified	
2.2	Precautionary statements (CLP)	Modified	
2.3	Other hazards not contributing to the classification	Modified	
9.1	Oxidising properties	Added	
11.1	ATE CLP (vapours)	Removed	
11.1	ATE CLP (oral)	Modified	
11.1	ATE CLP (dust,mist)	Modified	
11.1	LD50 oral rat	Modified	
11.1	LC50 inhalation rat (mg/l)	Modified	
15.1	REACH Annex XVII	Removed	
15.1	Other information, restriction and prohibition regulations	Added	

Full text of H- and EUH-statements:

Acute Tox. 2 (Inhalation:dust,mist) Acute toxicity (inhalation:dust,mist) Category 2

SYLLIT 544 SC

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Met. Corr. 1	Corrosive to metals, Category 1
Skin Corr. 1A	Skin corrosion/irritation, Category 1A
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
EUH208	Contains 1,2-benzisothiazol-3(2H)-one. May produce an allergic reaction.
EUH401	To avoid risks to human health and the environment, comply with the instructions for use.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Acute Tox. 4 (Oral)	H302	On basis of test data
Acute Tox. 4 (Inhalation:dust,mist)	H332	On basis of test data
Skin Irrit. 2	H315	Expert judgment
Eye Dam. 1	H318	Expert judgment
Aquatic Acute 1	H400	On basis of test data
Aquatic Chronic 1	H410	Calculation method

Safety Data Sheet applicable for regions : EU - Europe;SE - Sweden

SDS EU (REACH Annex II)

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.