



# Syllit 544 SC

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830  
Reference number: F1874ab, CA701650, CA711650, CA721650  
Issue date: 9/14/2009 Date of revision: 2/5/2020 Supersedes version of: 2/7/2019 Version: 4.10

### 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

#### 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](mailto: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

### 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

Signal word (CLP)

: Danger

Contains

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

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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.
Precautionary statements (CLP)	: P261 - Avoid breathing dust/fume/gas/mist/vapours/spray. P270 - Do not eat, drink or smoke when using this product. P280 - Wear protective gloves/protective clothing/eye protection/face protection. P302+P352 - IF ON SKIN: Wash with plenty of soap and water. 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/physician. P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
EUH-statements	: EUH401 - To avoid risks to human health and the environment, comply with the instructions for use. EUH208 - Contains 1,2-benzisothiazol-3(2H)-one. May produce an allergic reaction.
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.
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## 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

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### 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

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.
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.
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### 5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire	: Toxic fumes may be released.
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### 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.
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## 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.
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#### 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".
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### 6.2. Environmental precautions

Avoid release to the environment.

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### 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

No additional information available

### 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.

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### 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.
Partition coefficient n-octanol/water (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.

#### 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.

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### 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.

Dodine 544 g/L SC	
LD50 oral rat	> 300 (≤ 2000) mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 Inhalation - Rat	> 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)	> 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.

Dodine 544 g/L SC	
LC50 fish	3.4 mg/l (96h)

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EC50 Daphnia	0.123 mg/l (48h semi-static)
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)

## 12.2. Persistence and degradability

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

Persistence and degradability	Not readily biodegradable.
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## 12.3. Bioaccumulative potential

### Dodine 544 g/L SC

Partition coefficient n-octanol/water (Log Pow)	Not applicable
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### dodine(ISO); dodecylguanidinium acetate (2439-10-3)

Partition coefficient n-octanol/water (Log Pow)	1.25 – 1.33 (20°C pH=4.9 - 9.1)
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### 1,2-benzisothiazol-3(2H)-one (2634-33-5)

Partition coefficient n-octanol/water (Log Pow)	0.7 (20 °C)
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## 12.4. Mobility in soil

### Dodine 544 g/L SC

Surface tension	21.4 (19.1 – 21.4) mN/m (12% v/v; 20°C)
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### dodine(ISO); dodecylguanidinium acetate (2439-10-3)

Surface tension	50.6 mN/m (20°C)
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## 12.5. Results of PBT and vPvB assessment

No additional information available

## 12.6. Other adverse effects

No additional information available

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### 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
<b>14.1. UN number</b>		
UN 3082	UN 3082	UN 3082
<b>14.2. UN proper shipping name</b>		
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Dodine)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Dodine)	Environmentally hazardous substance, liquid, n.o.s. (Dodine)
<b>Transport document description</b>		
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
<b>14.3. Transport hazard class(es)</b>		
9	9	9
		
<b>14.4. Packing group</b>		
III	III	III
<b>14.5. Environmental hazards</b>		
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



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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  
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	

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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	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
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
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
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

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Aquatic Acute 1	H400	On basis of test data
Aquatic Chronic 1	H410	Calculation method

Safety Data Sheet applicable for : EU - Europe  
regions

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.