

**AKITO****Safety Data Sheet**

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

SDS Reference Number: REG-GR-321

Issue date: 14/9/2009 Date of revision: 13/1/2025 Supersedes version of: 21/4/2022 Version: 4.12

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

Product form : Mixture  
Name : DODINE(544)SC  
Trade name : AKITO

**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 Srl  
Rue de Renory 26/1  
B-4102 Ougrée  
Belgium  
T +32 (0)4 385 97 11  
[EUR-SDS.info@upl-ltd.com](mailto:EUR-SDS.info@upl-ltd.com), <http://www.upl-ltd.com/be>

**Distributor**

UPL Hellas S.A.  
Rizariou 16  
P.O. Box 15233  
15233 Chalandri - Athens  
Greece  
T +30 2105578777 , F +30 2105578768  
[info.hellas@upl-ltd.com](mailto:info.hellas@upl-ltd.com)

**1.4. Emergency telephone number**

Emergency number : Rest of the world (English): +44 1865 407333  
Europe (English): +44(0)1235 239670  
112 (European Emergency Number)  
Greece: +30 21 1198 3182 (Greek)

Country/Area	Organisation/Company	Address	Emergency number	Comment
Cyprus	Poison center		1401	
Greece	Poisons Information Centre Children's Hospital "Agliaia. Kyriakou"	11527 Athens	+30 2 10 779 3777	-

**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- and EUH-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.

# AKITO

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 2.2. Label elements

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

Hazard pictograms (CLP)



Signal word (CLP)

Contains

Hazard statements (CLP)

Precautionary statements (CLP)

EUH-statements

Extra phrases

- : Danger
- : Ethoxylated oleil amine, dodecylbenzenesulphonic salt
- : H302 - Harmful if swallowed.
- : H332 - Harmful if inhaled.
- : H315 - Causes skin irritation.
- : H318 - Causes serious eye damage.
- : H410 - Very toxic to aquatic life with long lasting effects.
- : P405+P102 - Store locked up. Keep out of reach of children.
- : P101 - If medical advice is needed, have product container or label at hand.
- : P261 - Avoid breathing mist, spray.
- : P264 - Wash thoroughly after handling.
- : P270 - Do not eat, drink or smoke when using this product.
- : P280 - Wear protective gloves/protective clothing/eye protection/face protection.
- : P501 - Dispose of contents/container in accordance with national regulation.
- : P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
- : P301+P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
- : 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.
- : P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
- : 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.
- : "Wear overalls, gloves and personal protective equipment for eyes and face during mixing and loading. Wear overalls when applying the product."
- "If re-entering the crop after spraying, wear a long-sleeved shirt and long pants."
- General: Show container or label if seeking medical advice.
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Give oxygen if breathing is difficult. Apply artificial respiration if necessary.

### 2.3. Other hazards

Contains no PBT and/or vPvB substances  $\geq 0.1\%$  assessed in accordance with REACH Annex XIII

Component	
Substance(s) not meeting the PBT criteria of REACH regulation, in accordance with Annex XIII	1,4-dioxane (123-91-1) <sup>(1)</sup>
Substance(s) not meeting the vPvB criteria of REACH regulation, in accordance with Annex XIII	1,4-dioxane (123-91-1) <sup>(1)</sup>

<sup>(1)</sup> Substance(s) in concentration below 0.1 % and displayed on a voluntary basis

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

**Component**

Substance(s) not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

1,4-dioxane (123-91-1)(<sup>1</sup>)

(<sup>1</sup>) Substance(s) in concentration below 0.1 % and displayed on a voluntary basis

**SECTION 3: Composition/information on ingredients****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 (ATE=851 mg/kg bodyweight) Acute Tox. 2 (Inhalation:dust,mist), H330 (ATE=0,05 mg/l/4h) Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=100) EUH401
Ethoxylated oleyl amine, dodecylbenzenesulphonic salt	CAS-No.: 66467-20-7	1 – 10	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) 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-XXXX	< 0.05	Acute Tox. 2 (Inhalation:dust,mist), H330 (ATE=0,21 mg/l) Acute Tox. 4 (Oral), H302 (ATE=450 mg/kg bodyweight) Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)
Sodium hydroxide substance with national workplace exposure limit(s) (GR)	CAS-No.: 1310-73-2 EC-No.: 215-185-5 EC Index-No.: 011-002-00-6 REACH-no: 01-2119457892-27-XXXX	< 1	Met. Corr. 1, H290 Skin Corr. 1A, H314 Eye Dam. 1, H318
1,4-dioxane substance listed on REACH Candidate List substance with national workplace exposure limit(s) (GR); substance with a Community workplace exposure limit	CAS-No.: 123-91-1 EC-No.: 204-661-8 EC Index-No.: 603-024-00-5	< 0,1	Flam. Liq. 2, H225 Carc. 1B, H350 STOT SE 3, H335 Eye Irrit. 2, H319 EUH019 EUH066

# AKITO

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

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-XXXX	(0,036 ≤ C ≤ 100) Skin Sens. 1A; 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-XXXX	(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- and EUH-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.
------------------------------	--

### 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.
----------------------	--

# AKITO

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 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 : Liquid spill: take up in sand, earth, vermiculite.  
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

#### 8.1.1 National occupational exposure and biological limit values

Sodium hydroxide (1310-73-2)	
Greece - Occupational Exposure Limits	
Local name	Υδροξείδιο του νατρίου
OEL TWA	2 mg/m <sup>3</sup>
OEL STEL	2 mg/m <sup>3</sup>
Regulatory reference	Π.Δ. 90/1999 - Προστασία της υγείας των εργαζομένων που εκτίθενται σε ορισμένους χημικούς παράγοντες κατά τη διάρκεια της εργασίας τους
1,4-dioxane (123-91-1)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	1,4 Dioxane
IOEL TWA	73 mg/m <sup>3</sup>
	20 ppm
Regulatory reference	COMMISSION DIRECTIVE 2009/161/EU

**1,4-dioxane (123-91-1)****Greece - Occupational Exposure Limits**

Local name	Διοξάνιο, 1,4-
OEL TWA	73 mg/m <sup>3</sup> 20 ppm
Regulatory reference	Π.Δ. 162/2007 - Προστασία της υγείας των εργαζομένων που εκτίθενται σε ορισμένους χημικούς παράγοντες κατά τη διάρκεια της εργασίας τους

**8.1.2. Recommended monitoring procedures**

No additional information available

**8.1.3. Air contaminants formed**

No additional information available

**8.1.4. DNEL and PNEC**

No additional information available

**8.1.5. Control banding**

No additional information available

**8.2. Exposure controls****8.2.1. Appropriate engineering controls****Appropriate engineering controls:**

Ensure good ventilation of the work station.

**8.2.2. Personal protection equipment****Personal protective equipment symbol(s):****8.2.2.1. Eye and face protection****Eye protection:**

Safety glasses. ISO 16321-1

**8.2.2.2. Skin protection****Skin and body protection:**

Wear standard coveralls and Category 3 Type 4 suit (EN 13688 + EN 14605:2005 + A1:2009).

If there is a risk of significant exposure, consider a higher protective type suit.

Wear two layers of clothing wherever possible. Polyester/cotton or cotton overalls should be worn under chemical protection suit and should be professionally laundered frequently.

**Hand protection:**

Protective gloves (ISO 374-1:2016/Type A)

**Hand protection**

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	> 0.4	3 (> 0.65)	EN ISO 374-1/A1

**8.2.2.3. Respiratory protection****Respiratory protection:**

[In case of insufficient ventilation and / or high aerosol concentration,] wear respiratory protective equipment - eg half mask (EN 140) with a particulate filter P2 (EN 143).

**8.2.2.4. Thermal hazards**

No additional information available

### 8.2.3. Environmental exposure controls

**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
Colour	: white.
Appearance	: Opaque. Viscous.
Odour	: Mild chemical odour.
Odour threshold	: Not applicable
Melting point	: Not applicable
Freezing point	: Not applicable
Boiling point	: Not applicable
Flammability	: Not applicable
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.
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: > 79 °C
Auto-ignition temperature	: 404 °C
Decomposition temperature	: Not applicable
pH	: ≈ 6,49 (undiluted)
Viscosity, kinematic	: Not available
Viscosity, dynamic	: 196 – 1750 mPa·s (40°C)
Solubility	: Not applicable.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Partition coefficient n-octanol/water (Log Pow)	: Not applicable
Vapour pressure	: Not applicable
Vapour pressure at 50°C	: Not available
Density	: 1,0287 g/ml (20°C)
Relative density	: 1,0287
Relative vapour density at 20°C	: Not available
Particle characteristics	: Not applicable

### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

No additional information available

#### 9.2.2. Other safety characteristics

Relative evaporation rate (butylacetate=1)	: Not applicable
Relative evaporation rate (ether=1)	: Not applicable

## 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.

# AKITO

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 10.4. Conditions to avoid

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

### 10.5. Incompatible materials

No supplementary 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 hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : Harmful if swallowed.  
Acute toxicity (dermal) : Not classified  
Acute toxicity (inhalation) : Inhalation:dust,mist: Harmful if inhaled.

AKITO	
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

#### Sodium hydroxide (1310-73-2)

LD50 oral rat	140 – 340 mg/kg
LD50 dermal rabbit	1350 mg/kg

#### 1,4-dioxane (123-91-1)

LD50 oral rat	≈ 5150 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
---------------	--

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

LD50 oral rat	300 – 2000 mg/kg bodyweight RAC Endpoint
LD50 dermal rat	> 2000 mg/kg bodyweight OECD Guideline 402; RAC Endpoint
LC50 Inhalation - Rat (Dust/Mist)	0,05 – 0,5 mg/l/4h RAC Endpoint

Skin corrosion/irritation : Causes skin irritation.  
pH: ≈ 6,49 (undiluted)

#### Sodium hydroxide (1310-73-2)

pH	13
----	----

#### Ethoxylated oleyl amine, dodecylbenzenesulphonic salt (66467-20-7)

pH	6 – 8
----	-------

Serious eye damage/irritation : Causes serious eye damage.  
pH: ≈ 6,49 (undiluted)



# AKITO

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Sodium hydroxide (1310-73-2)	
pH	13
Ethoxylated oleyl amine, dodecylbenzenesulphonic salt (66467-20-7)	
pH	6 – 8
Respiratory or skin sensitisation	: Skin sensitization: Not classified.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
1,2-benzisothiazol-3(2H)-one (2634-33-5)	
NOAEL (animal/female, F1)	56,6 mg/kg bodyweight female (ratReproductionFertility; EPA OPPTS 870.3800
STOT-single exposure	: Not classified
1,4-dioxane (123-91-1)	
STOT-single exposure	May cause respiratory irritation.
STOT-repeated exposure	: Not classified
1,4-dioxane (123-91-1)	
NOAEC (inhalation, rat, vapour, 90 days)	> 0,4 mg/l air Animal: rat
Aspiration hazard	: Not classified
dodine(ISO); dodecylguanidinium acetate (2439-10-3)	
Viscosity, kinematic	Not applicable

### 11.2. Information on other hazards

#### 11.2.1. Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties : The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

#### 11.2.2. Other information

No additional information available

## 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.

AKITO	
LC50 - Fish	3,4 mg/l (96h)
EC50 - Crustacea	0,123 mg/l (48h semi-static)
ErC50 algae	0,022 mg/l (72h)
dodine(ISO); dodecylguanidinium acetate (2439-10-3)	
LC50 - Fish	0,312 mg/l 96 Hours flow-through test Cyprinus carpio (Common carp)
EC50 - Crustacea	0,018 mg/l 48 Hours flow-through test Daphnia magna (Water flea)

# AKITO

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

<b>dodine(ISO); dodecylguanidinium acetate (2439-10-3)</b>	
ErC50 algae	0,0055 mg/l 72 Hours static test Raphidocelis subcapitata
NOEC chronic fish	0,2 mg/l 30 days flow-through test Pimephales promelas
NOEC chronic crustacea	0,0044 mg/l 21 days flow-through test Daphnia magna (Water flea)
NOEC chronic algae	0,00015 mg/l 72 Hours static test Raphidocelis subcapitata
<b>Sodium hydroxide (1310-73-2)</b>	
LC50 - Fish	35 – 189 mg/l
EC50 - Crustacea	40,4 mg/l Ceriodaphnia sp.
<b>1,4-dioxane (123-91-1)</b>	
EC50 - Crustacea	> 1000 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae	> 1000 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
NOEC (chronic)	1000 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	145 mg/l Test organisms (species): Pimephales promelas Duration: '32 d'
<b>1,2-benzisothiazol-3(2H)-one (2634-33-5)</b>	
LC50 - Fish	2,18 mg/l/96h ((OECD 203 method), Oncorhynchus mykiss)
LC50 fish	2,15 mg/l Oncorhynchus mykiss (Rainbow trout)
EC50 - Crustacea	2,94 mg/l/48h ((OECD 202 method), Daphnia magna)
EC50 Daphnia	2,9 mg/l Daphnia magna
ErC50 algae	0,11 mg/l/72h ((OECD 201 method), Selenastrum capricornutum)
NOEC chronic crustacea	1,7 mg/l/ 21 days (OECD 211; Daphnia)
NOEC chronic algae	0,0403 mg/l
<b>12.2. Persistence and degradability</b>	
<b>AKITO</b>	
Persistence and degradability	Rapidly degradable
<b>dodine(ISO); dodecylguanidinium acetate (2439-10-3)</b>	
Persistence and degradability	Not readily biodegradable.
<b>Sodium hydroxide (1310-73-2)</b>	
Persistence and degradability	Not rapidly degradable
<b>1,4-dioxane (123-91-1)</b>	
Persistence and degradability	Not rapidly degradable
<b>Ethoxylated oleyl amine, dodecylbenzenesulphonic salt (66467-20-7)</b>	
Persistence and degradability	Not rapidly degradable
<b>1,2-benzisothiazol-3(2H)-one (2634-33-5)</b>	
Persistence and degradability	Not rapidly degradable

# AKITO

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

### 12.3. Bioaccumulative potential

#### AKITO

Partition coefficient n-octanol/water (Log Pow)	Not applicable
---	----------------

#### 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)
---	---------------------------------

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

Partition coefficient n-octanol/water (Log Pow)	0,7 (20 °C)
---	-------------

### 12.4. Mobility in soil

#### AKITO

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

#### Component

Substance(s) not meeting the PBT criteria of REACH regulation, in accordance with Annex XIII	1,4-dioxane (123-91-1) <sup>(1)</sup>
--	---------------------------------------

Substance(s) not meeting the vPvB criteria of REACH regulation, in accordance with Annex XIII	1,4-dioxane (123-91-1) <sup>(1)</sup>
---	---------------------------------------

<sup>(1)</sup> Substance(s) in concentration below 0.1 % and displayed on a voluntary basis

### 12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties	: The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %.
--	---

### 12.7. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods	: Dispose of in accordance with relevant local regulations. Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point. Do not discharge into drains or rivers. Dispose of contents/container in accordance with licensed collector's sorting instructions. Discharging into rivers and drains is forbidden.
Product/Packaging disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations.
Additional information	: Do not contaminate water with the product or its container. Do not clean application equipment near surface water. Recycle or dispose of in compliance with current legislation.
Ecological waste information	: Avoid release to the environment. Empty containers should be taken for recycling, recovery or waste in accordance with local regulation.
European List of Waste (LoW, EC 2000/532)	: 02 01 08* - agrochemical waste containing dangerous substances



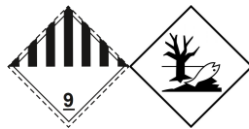
## SECTION 14: Transport information

In accordance with ADR / IMDG / IATA

# AKITO

## Safety Data Sheet

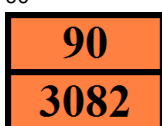
according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

ADR	IMDG	IATA
<b>14.1. UN number or ID 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, (-)	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 EmS-No. (Fire): F-A EmS-No. (Spillage): S-F	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, 375, 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 : -

#### Transport by sea

Special provisions (IMDG) : 274, 335, 969

# AKITO

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Limited quantities (IMDG)	: 5 L
Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	: LP01, P001
Special packing provisions (IMDG)	: PP1
IBC packing instructions (IMDG)	: IBC03
Tank instructions (IMDG)	: T4
Tank special provisions (IMDG)	: TP1, TP29
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, A197, A215
ERG code (IATA)	: 9L

### 14.7. Maritime transport in bulk according to IMO instruments

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

##### REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

##### REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

##### REACH Candidate List (SVHC)

Contains substance(s) listed on the REACH Candidate List in concentrations  $\geq 0.1\%$  or SCL: 1,4-dioxane (EC 204-661-8, CAS 123-91-1)

##### PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

##### POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

##### Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

##### Council Regulation (EC) for the control of dual-use items

Contains no substance subject to the COUNCIL REGULATION (EC) for the control of dual-use items

##### Seveso Directive (Disaster Risk Reduction)

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

##### Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

##### Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

#### 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:**

This sheet was updated (refer to the date at the top of this page).

Indication of changes		
Section	Changed item	Comments
	Supersedes	<b>Modified</b>
	Revision date	<b>Modified</b>
6.3	For containment	<b>Modified</b>
8.2	Hand protection	<b>Modified</b>
8.2	Skin and body protection	<b>Modified</b>
8.2	Eye protection	<b>Modified</b>
8.2	Respiratory protection	<b>Modified</b>
9.1	pH	<b>Modified</b>
10.5	Incompatible materials	<b>Added</b>
13.1	Waste disposal recommendations	<b>Added</b>
13.1	Additional information	<b>Added</b>
13.1	Ecology - waste materials	<b>Added</b>
13.1	Waste treatment methods	<b>Modified</b>
15.1	REACH Annex XVII	<b>Added</b>

**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
Carc. 1B	Carcinogenicity, Category 1B
EUH019	May form explosive peroxides.
EUH066	Repeated exposure may cause skin dryness or cracking.
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.
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
H225	Highly flammable liquid and vapour.
H290	May be corrosive to metals.

# AKITO

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Full text of H- and EUH-statements:	
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.
H335	May cause respiratory irritation.
H350	May cause cancer.
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.
Met. Corr. 1	Corrosive to metals, Category 1
Skin Corr. 1A	Skin corrosion/irritation, Category 1, Sub-Category 1A
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1A	Skin sensitisation, category 1A
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation

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 judgement
Eye Dam. 1	H318	Expert judgement
Aquatic Acute 1	H400	On basis of test data
Aquatic Chronic 1	H410	Calculation method

Safety Data Sheet (SDS), EU

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.