

Safety data sheet

according to Regulation (EC) No 1907/2006, Article 31

print: 10.03.2025

rev n°: 6 (replaces version 5)

Revision date: 10.03.2025

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

1.1 Product identifier

Trade name: *TONALE***kind of formulation:** *ZC - mixed formulation of CS and SC***Article number:** *not applicable***Registration number REACH:** *Not applicable.***UFI:** *DWPW-8SC9-V10A-ATTM*

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

Relevant use: *Agriculture.**Agrochemicals formulation.**Herbicide***Product category PC27:** *Plant protection products*

Application of the substance / the mixture

*Plant protection product**Agricultural chemicals*

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:*SIPCAM OXON S.p.A.**Registered office: Via Carroccio, 8 - 20123 Milano, Italia**Management: Via Sempione, 195 - 20016 Pero (MI), Italia**Production site: Via Vittorio Veneto, 81 - 26857 Salerano s. Lambro (LO), Italia**Tel.: +39 0371 5961 (8:00 - 17:00 GMT+1)**Website: www.sipcam-oxon.com**E-mail: msds@sipcam.com*

1.4 Emergency telephone number:

*Emergency phone: +39 02 353781 (8.00-17.00 GMT+1). For any questions regarding this MSDS please contact: msds@sipcam.com.**For ROI only: In the event of an emergency, call the National Poisons Centre, Beaumont Hospital at 01 809 2566 or 01 837 9964*

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

2.1.1 Classification according to Regulation (EC) No 1272/2008

**GHS08 health hazard***Repr. 2 H361d Suspected of damaging the unborn child.**STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.***GHS09 environment***Aquatic Acute 1 H400 Very toxic to aquatic life.**Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.***GHS07***Acute Tox. 4 H302 Harmful if swallowed.*

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008*The product is classified and labelled according to the CLP regulation.*

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Hazard pictograms

GHS07 GHS08 GHS09

Signal word Warning**Hazard-determining components of labelling:**

Terbutylazine

Clomazone

mesotrione

Hazard statements

H302 Harmful if swallowed.

H361d Suspected of damaging the unborn child.

H373 May cause damage to organs through prolonged or repeated exposure.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

P270 Do not eat, drink or smoke when using this product.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P314 Get medical advice/attention if you feel unwell.

P391 Collect spillage.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Additional information:

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.

2.3 Other hazards**Results of PBT and vPvB assessment****PBT:** The mixture does not contain any PBT substances.**vPvB:** The mixture does not contain any vPvB substances.**Determination of endocrine-disrupting properties**

The substance/mixture does not contain components considered to have endocrine disrupting properties in accordance with Article 57(f) of REACH or Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients**3.2 Mixtures****Description:** Mixture of the substances listed below with harmless additions:**Dangerous components:**

N° CAS	Designation	R-Phrases	%
CAS: 5915-41-3 EINECS: 227-637-9 Index number: 613-323-00-2	Terbutylazine	☠ STOT RE 2, H373; ☠ Aquatic Acute 1, H400 (M=10); Aquatic Chronic 1, H410 (M=10); ☠ Acute Tox. 4, H302	25-50%
CAS: 104206-82-8 Index number: 609-064-00-X	mesotrione	☠ Repr. 2, H361d; STOT RE 2, H373; ☠ Aquatic Acute 1, H400 (M=10); Aquatic Chronic 1, H410 (M=10)	≥3-<10%
CAS: 81777-89-1 EC number: 617-258-0 Index number: 613-340-00-5	Clomazone	☠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ☠ Acute Tox. 4, H302; Acute Tox. 4, H332 ATE: LD50 oral: 768 mg/kg LC50 (4 h) inhalative: 4.85 mg/L	2.5-10%
CAS: 57-55-6 EINECS: 200-338-0 Reg.nr.: 01-2119456809-23-xxxx	Propane-1,2-diol	substance with a Community workplace exposure limit	2.5-10%
CAS: 7664-38-2 EINECS: 231-633-2 Index number: 015-011-00-6 Reg.nr.: 01-2119485924-24-xxxx	phosphoric acid	☠ Met. Corr.1, H290; Skin Corr. 1B, H314 Specific concentration limits: Skin Corr. 1B; H314: C ≥ 25 % Skin Irrit. 2; H315: 10 % ≤ C < 25 % Eye Irrit. 2; H319: 10 % ≤ C < 25 %	<2.5%

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CAS: 2634-33-5 EINECS: 220-120-9 Index number: 613-088-00-6 Reg.nr.: 01-2120761540-60-xxxx	1,2-benzisothiazol-3(2H)-one ⚠ Acute Tox. 2, H330; ⚠ Eye Dam. 1, H318; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315; Skin Sens. 1A, H317 ATE: LD50 oral: 450 mg/kg Specific concentration limit: Skin Sens. 1A; H317: C ≥ 0.036 %	(Contd. of page 2) <0.025%
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Additional information

Factor M=1, unless otherwise stated.

For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures
General information

Instantly remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

Personal protection for the First Aider.

After inhalation

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

In case of unconsciousness bring patient into stable side position for transport.

After skin contact Instantly wash with water and soap and rinse thoroughly.

After eye contact

Rinse opened eye for several minutes under running water, until symptoms disappear, and then with ophthalmic decongestant solution; seek medical attention. Take immediately to hospital, in case of severe injuries.

After swallowing

Instantly call for doctor.

Call a doctor immediately.

Rinse out mouth without swallowing, do not induce vomiting.

Information for doctor Patient needs medical supervision for 48 h.

4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

Seek the advice of a Poison Control Centre

Treat symptomatically and supportively

SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing agents

 CO₂, extinguishing powder. Fight larger fires with water spray or alcohol-resistant foam. Do not use a direct stream of water to extinguish.

Use fire fighting measures that suit the environment.

For safety reasons unsuitable extinguishing agents None.

5.2 Special hazards arising from the substance or mixture

Can be released in case of fire:

Carbon monoxide (CO)

 Nitrogen oxides (NO_x)

 Sulphur oxides (SO_x)

Under certain fire conditions, traces of other toxic gases cannot be excluded.

5.3 Advice for firefighters
Protective equipment:

Do not inhale explosion gases or combustion gases.

Wear protective clothing conforming to European Standard EN 469.

Additional information

Cool endangered containers with water spray jet.

Collect contaminated fire fighting water separately. It must not enter drains.

Do not allow extinguishing media and spilled material to enter drains or water courses.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation

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Keep away from ignition sources

Keep people at a distance and stay on the windward side.

Wear protective clothing.

6.1.1. For non-emergency personnel

wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing;

remove ignition sources, provide sufficient ventilation, control dust;

apply emergency procedures, evacuate the danger area or consult an expert.

6.1.2. For emergency responders

wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing;

In case of dust provide inhalation protection

Wear protective clothing, boots and glasses

6.2 Environmental precautions:

Inform respective authorities in case product reaches water or sewage system.

Do not allow to enter drainage system, surface or ground water.

Prevent from spreading (e.g. by damming-in or oil barriers).

Collect with suitable equipment and do not allow to enter drainage system, surface or ground water.

6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose of contaminated material as waste according to Section 13.

6.4 Reference to other sections

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Avoid splashes or spray in enclosed areas.

Wear personal protective equipments (PPE).

The usual precautionary measures for handling chemicals shall be observed.

Information about protection against explosions and fires: Keep ignition sources away - Do not smoke.

Handling

Avoid contact with the skin and vapour inhalation; do not eat, drink nor smoke while working.

Avoid direct or indirect contact with the product. Do not eat, drink or smoke while working.

7.2 Conditions for safe storage, including any incompatibilities
Storage

Store in a cool and ventilated place, away from heat source and direct sunlight without open sewage system.

Keep out the reach of children, unauthorized persons and animals. Keep away from food, drink and animal feedingstuffs.

Requirements to be met by storerooms and containers: Store only in the original container.

Information about storage in one common storage facility:

Prevent storage with incompatible materials (see chapter 10).

Store away from foodstuffs.

Further information about storage conditions: Store in cool, dry conditions in well sealed containers.

Storage class 12
7.3 Specific end use(s)

Agriculture

To be applied strictly for the uses described in the label.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters
Components with limit values that require monitoring at the workplace:
CAS: 57-55-6 Propane-1,2-diol

WEL (Gran Bretagna)	Long-term value: 474* 10** mg/m ³ , 150* ppm *total vapour and particulates **particulates
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CAS: 7664-38-2 phosphoric acid

WEL (Gran Bretagna)	Short-term value: 2 mg/m ³
	Long-term value: 1 mg/m ³

DNELs**CAS: 10043-52-4 calcium chloride**

Inhalative	DNEL Short-term	13 mg/m ³ (workers)
		6.6 mg/m ³ (consumers)
	DNEL Long-term	6.6 mg/m ³ (workers)
		3.3 mg/m ³ (consumers)

CAS: 7631-99-4 Sodium nitrate

Oral	DNEL Long-term	12.5 mg/kg bw/day (consumers)
Dermal	DNEL Long-term	20.8 mg/kg bw/day (workers)
		12.5 mg/kg bw/day (consumers)
Inhalative	DNEL Long-term	36.7 mg/m ³ (workers)
		10.9 mg/m ³ (consumers)

CAS: 7664-38-2 phosphoric acid

Inhalative	DNEL Short-term	2 mg/m ³ (workers)
	DNEL Long-term	1 mg/m ³ (workers)
		0.73 mg/m ³ (consumers)

PNECs**CAS: 7631-99-4 Sodium nitrate**

PNEC	18 mg/L (sewage treatment plant)
	4.5 mg/L (intermittent release in water)
	0.045 mg/L (marine water)
	0.45 mg/L (water)

Additional information: The lists that were valid during the compilation were used as basis.

8.2 Exposure controls**Individual protection measures, such as personal protective equipment****General protective and hygienic measures**

The usual precautionary measures for handling chemicals shall be observed.

Keep away from foodstuffs, beverages and food.

Take off immediately all contaminated clothing

Wash hands during breaks and at the end of the work.

Store protective clothing separately.

Avoid contact with the eyes and skin.

Pregnant women must strictly avoid inhalation or contact with the skin.

Do not eat, drink or smoke while working.

Breathing equipment:

In case of brief exposure or low pollution use breathing filter apparatus. In case of intensive or longer exposure use breathing apparatus that is independent of circulating air.



Breathing protection recommended in accordance with the relevant European Standards.

Hand protection

Protective gloves (rubber or plastic).



Protective gloves against chemicals and micro-organisms in accordance with EN 374

Material of gloves Nitrile rubber, NBR

Eye/face protection

Tightly sealed safety glasses in accordance with EN 166.

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Body protection:

Light weight protective clothing
 Protective work clothing.

Boots Safety footwear for professional use in accordance with EN 345.**Environmental exposure controls**

Waste waters from equipment cleaning shall be disposed according to local and national regulation.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties**General Information**

Physical state	Liquid
Colour:	Light beige
Odour:	Slightly sweetish
Odour threshold:	Not determined.
Melting point/freezing point:	Not applicable
Boiling point or initial boiling point and boiling range	Not determined
Flammability	Not applicable because the product is liquid
Lower and upper explosion limit	
Lower:	Not explosive Method EU A.14
Upper:	Not explosive Method EU A.14
Flash point:	The product is not highly flammable. Method EU A.9
Auto-ignition temperature:	Method EU A.15
Decomposition temperature:	Not determined.
pH at 20 °C	2.43 (CIPAC MT 75.3)
pH (undiluted sample)	
Viscosity:	
Kinematic viscosity at 40 °C	467 mm ² /s (OECD 114)
Kinematic viscosity at 20 °C	585 mm ² /s (OECD 114)
dynamic at 20 °C:	692 ± 3 cPs (OECD 114)
Solubility	
Water:	Dispersible
Partition coefficient n-octanol/water (log value)	Not determined.
Vapour pressure:	Not determined.
Density and/or relative density	
Density at 20 °C	1.1183 g/cm ³ (EU A.3)
Vapour density	Not determined.

9.2 Other information**Appearance:****Form:** homogeneous liquid**Important information on protection of health and environment, and on safety.**

Self-inflammability: The product is not liable to ignite under normal storage conditions
Method EU A.15

Explosive properties: Thermal sensitivity: Negative
Mechanical sensitivity (shock): Negative
Product is not explosive.
Method EU A.14

Change in condition**Softening point/range****Oxidising properties**Not oxidising
Method EU A.21**Evaporation rate**

Not determined.

Information with regard to physical hazard classes**Explosives**

The product is not explosive. Method EU A.14

Flammable gases

Not relevant due to the nature of the product, it doesn't provide usefull informations

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Aerosols	Not relevant due to the nature of the product, it doesn't not provide usefull informations
Oxidising gases	Not relevant due to the nature of the product, it doesn't not provide usefull informations
Gases under pressure	Not relevant due to the nature of the product, it doesn't not provide usefull informations
Flammable liquids	The product is not flammable as it does not contain flammable solvents.
Flammable solids	Not relevant due to the nature of the product, it doesn't not provide usefull informations
Self-reactive substances and mixtures	Not relevant due to the nature of the product, it doesn't not provide usefull informations
Pyrophoric liquids	Product is not autoflammable. Method EU A.15
Pyrophoric solids	Not relevant due to the nature of the product, it doesn't not provide usefull informations
Self-heating substances and mixtures	The product is not auto-flammable since it doesn't contain auto-flammable solvents
Substances and mixtures, which emit flammable gases in contact with water	Not relevant due to the nature of the product, it doesn't not provide usefull informations
Oxidising liquids	Product not oxidising. Method EU A.21
Oxidising solids	Not relevant due to the nature of the product, it doesn't not provide usefull informations
Organic peroxides	Not relevant due to the nature of the product, it doesn't not provide usefull informations
Corrosive to metals	Not relevant due to the nature of the product, it doesn't not provide usefull informations
Desensitised explosives	Not relevant due to the nature of the product, it doesn't not provide usefull informations

SECTION 10: Stability and reactivity

10.1 Reactivity The product is not reactive under recommended handling conditions.

10.2 Chemical stability Stable under the recommended handling and storage conditions (see section 7).

Thermal decomposition / conditions to be avoided: No decomposition if used and stored according to specifications.

10.3 Possibility of hazardous reactions No dangerous reactions are known.

10.4 Conditions to avoid No further relevant information available.

10.5 Incompatible materials: No further relevant information available.

10.6 Hazardous decomposition products: None in standard storage conditions.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity Harmful if swallowed.

LD/LC50 values that are relevant for classification:

Oral	LD50	> 300 mg/kg (rat)
Dermal	LD50	> 2,000 mg/kg (rat)

CAS: 5915-41-3 Terbutylazine

Oral	LD50	1,590 mg/kg (rat)
Dermal	LD50	> 2,000 mg/kg (rat)
Inhalative	LC50 (4 h)	> 5.3 mg/L (rat)

CAS: 104206-82-8 mesotrione

Oral	LD50	> 5,000 mg/kg (rat)
Dermal	LD50 (Static)	> 2,000 mg/kg (rat)
Inhalative	LC50 (4 h) (Dynamic)	mg/L (rat) > 4.75 mg/l

CAS: 81777-89-1 Clomazone

Oral	LD50	768 mg/kg (ATE)
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Dermal	LD50	>2,000 mg/kg (rabbit)
Inhalative	LC50 (4 h)	4.85 mg/L (ATE)
CAS: 10043-52-4 calcium chloride		
Oral	LD50	2,301 mg/kg (rat)
Dermal	LD50	5,000 mg/kg (rabbit)
CAS: 7631-99-4 Sodium nitrate		
Oral	LD50	2,000 mg/kg (rat)
Dermal	LD50	5,000 mg/kg (rat)
CAS: 7664-38-2 phosphoric acid		
Oral	LD50	2,600 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rabbit)
CAS: 68512-34-5 Lignosulfonic acid, sodium salt, sulfomethylated		
Oral	LD50	<10,000 mg/kg (rat)
Inhalative	LC50 (4 h)	>480 mg/L (rat)
Dimethylpolysiloxane		
Oral	LD50	>2,000 mg/kg (rat)

Primary irritant effect:**Skin corrosion/irritation** Based on available data, the classification criteria are not met.**Skin corrosion / irritation - Test**

Irritation of skin	Skin corrosion	(rabbit) Not irritant
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CAS: 104206-82-8 mesotrione

Irritation of skin	Skin corrosion	(rabbit) Not irritant
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CAS: 81777-89-1 Clomazone

Irritation of skin	Skin corrosion	(rabbit) Not irritant
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CAS: 68512-34-5 Lignosulfonic acid, sodium salt, sulfomethylated

Irritation of skin	Skin corrosion	(rabbit) Not irritant
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Dimethylpolysiloxane

Irritation of skin	Skin corrosion	(rabbit) repeated and prolonged contact may cause mild irritation
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Serious eye damage/irritation Based on available data, the classification criteria are not met.**Serious eye damage / Irritation - Test****CAS: 104206-82-8 mesotrione**

Irritation of eyes	Eye Irritation	(rabbit) Not irritant
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CAS: 81777-89-1 Clomazone

Irritation of eyes	Eye Irritation	(rabbit) Not irritant
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CAS: 68512-34-5 Lignosulfonic acid, sodium salt, sulfomethylated

Irritation of eyes	Eye Irritation	(rabbit) Irritant
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Dimethylpolysiloxane

Irritation of eyes	Eye Irritation	(rabbit) causes serious eye damages
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Respiratory or skin sensitisation Based on available data, the classification criteria are not met.**Sensitisation - Test**

Sensitization	(mice) Not sensitizing
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CAS: 104206-82-8 mesotrione

Sensitization	(rabbit) Not sensitizing
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CAS: 68512-34-5 Lignosulfonic acid, sodium salt, sulfomethylated

Sensitization	(guinea pig) Not sensitizing
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Dimethylpolysiloxane

Sensitization	(guinea pig) Not sensitizing - referred to one component of the mixture
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Germ cell mutagenicity Based on available data, the classification criteria are not met.**Carcinogenicity** Based on available data, the classification criteria are not met.**Reproductive toxicity** Suspected of damaging the unborn child.**STOT-single exposure** Based on available data, the classification criteria are not met.**STOT-repeated exposure** May cause damage to organs through prolonged or repeated exposure.**Aspiration hazard** Based on available data, the classification criteria are not met.**Other information:** For symptoms and effects see section 4.**Additional toxicological information:****Acute effects (acute toxicity, irritation and corrosivity)** No further information available.**CMR effects (cancerogenity, mutagenicity and toxicity for reproduction)** No relevant information available.**11.2 Information on other hazards****Endocrine disrupting properties**

None of the ingredients is listed.

SECTION 12: Ecological information**12.1 Toxicity** Very toxic to aquatic life with long lasting effects.**Aquatic toxicity:**

LC50 (96h)	7 mg/L (rainbow trout (<i>oncorhynchus mykiss</i>))
EC50 (48h)	>82.7 mg/L (<i>Daphnia magna</i>)
EC50	mg/L (<i>lemna gibba</i>) ErC50 (frond number) = 75.9 µg f.p/L ErC50 (dry weight) = 57.1 µg f.p/L

CAS: 5915-41-3 Terbutylazine

EC50 (72h)	0.028 mg/L (algae <i>Pseudokirchneriella subcapitata</i>)
LC50 (96h)	2.2 mg/L (rainbow trout (<i>oncorhynchus mykiss</i>))
ErC50 (72h)	0.028 mg/L (algae <i>Pseudokirchneriella subcapitata</i>)
EC50	0.412 mg/L (<i>lemna gibba</i>) (14 d - ErC50)
NOEC	0.09 mg/L (rainbow trout (<i>oncorhynchus mykiss</i>)) (21d)

CAS: 104206-82-8 mesotrione

EC50 (48h)	>622 mg/L (<i>Daphnia magna</i>)
ErC50 (72h)	13 mg/L (algae <i>Pseudokirchneriella subcapitata</i>)

CAS: 81777-89-1 Clomazone

LC50 (96h)	15.5 mg/L (rainbow trout (<i>oncorhynchus mykiss</i>))
EC50 (48h)	12.7 mg/L (<i>Daphnia magna</i>)
EC50	>185 mg/L (algae (<i>Navicula pelliculosa</i> - 120 h - ErC50) >34 mg/L (<i>lemna gibba</i>) (14 d - ErC50)

CAS: 10043-52-4 calcium chloride

EC50 (72h)	>4,000 mg/L (algae <i>Pseudokirchneriella subcapitata</i>) (OECD 201)
LC50 (96h)	4,630 mg/L (<i>pimephales promelas</i>)
EC50 (48h)	2,400 mg/L (<i>Daphnia magna</i>) (OECD 202)

CAS: 7631-99-4 Sodium nitrate

LC50 (96h)	6,000 mg/L (fish)
EC50 (48h)	8,600 mg/L (<i>Daphnia magna</i>)

CAS: 7664-38-2 phosphoric acid

LC50 (96h)	>100 mg/L (algae) 75.1 mg/L (fish) (OECD 203)
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EC50 (48h)	>100 mg/L (<i>Daphnia magna</i>)
CAS: 68512-34-5 Lignosulfonic acid, sodium salt, sulfomethylated	
LC50 (96h)	615 mg/L (<i>pimephales promelas</i>)
EC50 (48h)	5.4 mg/L (<i>Crassostrea gigas</i>)
Dimethylpolysiloxane	
LC50 (96h)	>100 mg/L (fish) referred to one component of the mixture 420 mg/L (rainbow trout (<i>oncorhynchus mykiss</i>))

Environmental toxicity

Oral	EC 50	>128 mg/kg (earthworms, <i>Eisenia foetida</i>)
	LD 50	>300 µg/bee (bee (<i>Apis mellifera</i>))
Dermal	LD 50	>300 µg/bee (bee (<i>Apis mellifera</i>))

CAS: 5915-41-3 Terbutylazine

Oral	LD 50	1,236 mg/kg bw (<i>Colinus virginianus</i>) >141.7 mg/kg bw (earthworms, <i>Eisenia foetida</i>) (14 d)
	LD 50	>22.6 µg/bee (bee (<i>Apis mellifera</i>))
Dermal	LD 50	>32 µg/bee (bee (<i>Apis mellifera</i>))

CAS: 81777-89-1 Clomazone

Oral	EC 50	2,510 mg/kg (<i>Colinus virginianus</i>)
	LD 50	>85.29 µg/bee (bee (<i>Apis mellifera</i>))
Dermal	LD 50	>100 µg/bee (bee (<i>Apis mellifera</i>))

12.2 Persistence and degradability No further relevant information available.**12.3 Bioaccumulative potential****CAS: 5915-41-3 Terbutylazine**

Octanol / Water partition coefficient	3.4 (partition n-octanol/water) (20 °C)
BCF - Bioconcentration factor	34

CAS: 81777-89-1 Clomazone

Octanol / Water partition coefficient	2.54 (partition n-octanol/water) (23°C)
CAS: 68512-34-5 Lignosulfonic acid, sodium salt, sulfomethylated	
Octanol / Water partition coefficient	≤3.45

12.4 Mobility in soil**CAS: 5915-41-3 Terbutylazine**

Koc	231 ml/g medium mobility
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12.5 Results of PBT and vPvB assessment**PBT:** None of the ingredients meets the classification requirements.**vPvB:** None of the ingredients meets the classification requirements.**12.6 Endocrine disrupting properties** The product does not contain substances with endocrine disrupting properties.**12.7 Other adverse effects** No further relevant information available.**Remark:** Very toxic for fish**DT 50 (active ingredient)****CAS: 5915-41-3 Terbutylazine**

DT 50	72 days (soil) medium to high persistence
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CAS: 104206-82-8 mesotrione

DT 50	6-105 days (soil) Not persistent >30 days (water) (25°C) Persistent
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CAS: 81777-89-1 Clomazone

DT 50	89 days (soil) moderate to persistent 52.5 days (water) slow degradation
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Additional ecological information:**General notes:**

Danger to drinking water if even small quantities leak into soil.
 Also poisonous for fish and plankton in water bodies.
 Very toxic for aquatic organisms

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

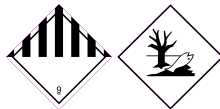
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

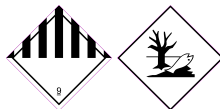
Uncleaned packagings: Dispose empty packagings according to current regulations.

SECTION 14: Transport information
14.1 UN number or ID number
ADR/RID/ADN, IMDG, IATA

UN3082

14.2 UN proper shipping name
ADR/RID/ADN

 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
 N.O.S. (Terbutylazine, mesotrione)
IMDG
 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
 (Terbutylazine, mesotrione), MARINE POLLUTANT
IATA
 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
 (Terbutylazine, mesotrione)
14.3 Transport hazard class(es)**ADR/RID/ADN**
Class
Label

 9 (M6) Miscellaneous dangerous substances and articles.
 9
IMDG, IATA
Class
Label

 9 Miscellaneous dangerous substances and articles.
 9
14.4 Packing group**ADR/RID/ADN, IMDG, IATA**

III

14.5 Environmental hazards:
 Product contains environmentally hazardous substances:
 Terbutylazine, mesotrione
Marine pollutant:

Symbol (fish and tree)

Special marking (ADR/RID/ADN):

Symbol (fish and tree)

Special marking (IATA):

Symbol (fish and tree)

14.6 Special precautions for user

Warning: Miscellaneous dangerous substances and articles.

Kemler Number:

90

EMS Number:

F-A,S-F

Stowage Category

A

14.7 Maritime transport in bulk according to IMO instruments

Not applicable.

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Transport/Additional information:**ADR/RID/ADN****Limited quantities (LQ)**

5L

Excepted quantities (EQ)

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

Transport category

3

Tunnel restriction code

E

Remarks:

Transport in Limited Quantities only in suitable packaging.

ADR Special Provision 375 may apply for UN 3077 in packagings of 5 kg or less and for UN3082 in packagings of 5 L or less.

IMDG**Limited quantities (LQ)**

5L

Excepted quantities (EQ)

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

Remarks:

IMDG Code 2.10.2.7 may apply for UN 3077 in packagings of 5 kg or less and for UN3082 in packagings of 5 L or less.

IATA**Remarks:**

For UN 3077 in packagings of 5 kg or less and UN3082 in packagings of 5 L or less, Special Provision A197 may apply according to IATA Dangerous Goods Regulation.

UN "Model Regulation":

UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (TERBUTHYLAZINE, MESOTRIONE), 9, III

SECTION 15: Regulatory information

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

Regulation (EC) n. 1907/2006

Regulation (EC) n. 1272/2008

Regulation (EC) n. 790/2009 and (EU) no. 758/2013

Regulation (EU) n. 2020/878

Regulation (EU) n. 286/2011

Regulation (EU) n. 618/2012

Regulation (EU) n. 487/2013

Regulation (EU) n. 944/2013

Regulation (EU) n. 605/2014

Regulation (EU) n. 2015/1221

Regulation (EU) n. 2016/918

Regulation (EU) n. 2016/1179

Regulation (EU) n. 2017/776

Regulation (EU) n. 2018/669

Regulation (EU) n. 2018/521

Regulation (EU) n. 2018/1480

Regulation (EU) n. 2020/217

Regulation (EU) n. 2020/1182

Regulation (EU) n. 1107/2009

Regulation (EU) n. 2021/643

Regulation (EU) n. 2021/849

Regulation (EU) n. 2022/692

Regulation (EU) n. 2023/1434

Regulation (EU) n. 2022/1435

Regulation (EU) n. 2024/197

Directive 2012/18/EU**Named dangerous substances - ANNEX I** Not applicable**Seveso category E1** Hazardous to the Aquatic Environment**Qualifying quantity (tonnes) for the application of lower-tier requirements** 100 t**Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t**REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3

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DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II

None of the ingredients is listed.

REGULATION (EU) 2019/1148

Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

None of the ingredients is listed.

Annex II - REPORTABLE EXPLOSIVES PRECURSORS

CAS: 7631-99-4 | Sodium nitrate

Regulation (EC) No 273/2004 on drug precursors

None of the ingredients is listed.

Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

None of the ingredients is listed.

National regulations**Technical instructions (air):**

Class	Share in %
Wasser	44.5
NK	3.0

15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

A list of European Poison Centres is available on http://ec.europa.eu/growth/sectors/chemicals/poison-centres/index_en.htm

In case of emergency, contact your local Poison Centre through Global Health Observatory data on http://www.who.int/gho/phe/chemical_safety/poisons_centres/en/

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Bibliographic sources:

- ECHA database
- HSDB in Pubchem
- Pesticide properties database
- Pesticide manual
- Internal company documents

Department issuing data specification sheet: Product safety department.

Contact:

Product safety department

SIPCAM OXON msds@sipcam.comFor Poison Centres in Europe see: <https://poisoncentres.echa.europa.eu>**Date of previous version:** 14.11.2022**Version number of previous version:** 5**Abbreviations and acronyms:**

EC 50: Effective concentration, 50 percent

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

ATE: Acute toxicity estimate values

Met. Corr. 1: Corrosive to metals – Category 1

Acute Tox. 4: Acute toxicity – Category 4

Acute Tox. 2: Acute toxicity – Category 2

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

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UE

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print: 10.03.2025

rev n°: 6 (replaces version 5)

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*Skin Sens. 1A: Skin sensitisation – Category 1A**Repr. 2: Reproductive toxicity – Category 2**STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2**Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1**Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1***Sources**

Document elaborated on the basis of the data required by the EC Regulation 1107/2009 (plant protection products) and in accordance with the EC Regulation 878/2020.

*** Data compared to the previous version altered.**

14.11.2022

UL