

# SAFETY DATA SHEET

## ZIGNAL 500 SC

This safety data sheet complies with the requirements of:  
Regulation (EC) No. 453/2010 and Regulation (EC) No. 1272/2008

CHEMICAL NOTIFICATION = YES



**SDS # :** FO002228-FI-A  
**Revision date:** 2020-06-12  
**Format:** EU  
**Version** 2.02

### Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1. Product Identifier

**Product Code(s)** FO002228-FI-A  
**Product Name** ZIGNAL 500 SC  
**Registration number** 3275  
**Synonyms** Fluatsinami 500 g/L SC

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

**Recommended Use:** Can be used as fungicide only,  
  
Industry Code (TOL): A011 crop production, horticulture  
Intended use code (KT): 38 plant protection products  
The chemical can be used for general consumption: Not applicable  
User group: Professional users

**Restrictions on Use:** Use as recommended by the label.

#### 1.3. Details of the supplier of the safety data sheet

**Supplier** CHEMINOVA A/S, a subsidiary of FMC Corporation  
Thyborønvej 78  
DK-7673 Harbøre  
Denmark  
+45 9690 9690  
Business Tax ID (Y-tunnus) = DK 12760043  
SDS.Ronland@fmc.com

For further information, please contact:

**Contact point** (+45) 97 83 53 53 (24 h; for emergencies only)

#### 1.4. Emergency telephone number

**Emergency telephone** In the event of an accident, call the general emergency number: 112  
  
HUCH Poison Information Center 24h tel. 0800 147 111 or 09 471 977

### Section 2: HAZARDS IDENTIFICATION

#### 2.1. Classification of the substance or mixture Regulation (EC) No 1272/2008

Skin sensitization	Category 1B (H317)
Reproductive toxicity	Category 2 (H361d)
Acute aquatic toxicity	Category 1 (H400)
Chronic aquatic toxicity	Category 1 (H410)

## 2.2. Label elements

### Hazard pictograms



### Hazard Designation

Warning

### Hazard Statements

H317 - May cause an allergic skin reaction

H361d - Suspected of damaging the unborn child

H410 - Very toxic to aquatic life with long lasting effects

EUH401 - To avoid risks to human health and the environment, comply with the instructions for use

### Precautionary Statements

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

P280 - Use required personal protective equipment

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water

P308 + P313 - IF exposed or concerned: Get medical advice/attention

P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention

P391 - Collect spillage

P405 - Store locked up

P501 - Surplus, unusable plant protection product is taken to a hazardous waste collection point and emptied, rinsed sales packaging is taken to an appropriate waste disposal point.

## 2.3. Other hazards

None of the ingredients in the product meets the criteria for being PBT or vPvB.

## Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substances

The product is a mixture, not a substance.

### 3.2 Mixture containing the following hazardous ingredients:

Chemical name	EC-No	CAS-No	Weight %	Classification according to Regulation (EC) No. 1272/2008 [CLP]	REACH registration number
Fluazinam	616-712-5	79622-59-6	38	Acute Tox. 4 (H332) Skin irrit.: Category 2 (H315) Eye Dam. 1 (H318) Skin Sens. 1A (H317) Repr. 2 (H361d) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	No data available
Sodium alkyl naphthalenesulphonate-formaldehyde condensate	-	577773-56-9	2	Skin Irrit. 2 (H315) Eye Irrit. 2 (H319)	No data available
Alcohols, C13-15 Branched and Linear, Ethoxylated	NLP no. 500-337-8	157627-86-6	1	Acute Tox. 4 (H302) Eye Dam. 1 (H318) Aquatic Acute 1 (H400)	No data available
1,2	220-120-9	2634-33-5	0.02	Skin Irrit. 2 (H315)	No data available

benzisothiazolin-3-one				Eye Dam. 1 (H318) Skin Sens. 1 (H317) Acute Tox. 4 (H302) Aquatic Acute 1 (H400)	
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**Additional Information**

For the full text of the H- and EUH- phrases mentioned in this Section, see Section 16

Contains 1,2-Benzisothiazolin-3-one (CAS number 2634-33-5) at a level below the concentration limit for classification of the mixture as sensitising.

## Section 4: FIRST AID MEASURES

**4.1. Description of first aid measures**

<b>Eye Contact</b>	Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for further treatment advice.
<b>Skin Contact</b>	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for further treatment advice.
<b>Inhalation</b>	If experiencing any discomfort, immediately remove from exposure. Light cases: Keep person under surveillance. Get medical attention immediately if symptoms develop. Serious cases: Get medical attention immediately or call for an ambulance.
<b>Ingestion</b>	Rinse mouth with water and afterwards drink plenty of water or milk. Do NOT induce vomiting. If vomiting does occur, rinse mouth and drink fluids again. Never give anything by mouth to an unconscious person. Immediate medical attention is required.

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

<b>Most important symptoms and effects, both acute and delayed</b>	Allergic reactions. The symptoms of the allergic effect range from mildly itchy, papular rash to painful, weeping and blistering dermatitis.
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**4.3. Indication of any immediate medical attention and special treatment needed**

<b>Indication of immediate medical attention and special treatment needed, if necessary</b>	<p>After ingestion, the main symptoms are passivity, impaired mobility, and shortness of breath.</p> <p>Show this material safety data sheet to the doctor in attendance.</p> <p>There is no specific antidote against this substance. Gastric lavage and/or administration of activated charcoal can be considered. After decontamination, treatment is supportive and symptomatic as for a general chemical.</p>
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## Section 5: FIRE FIGHTING MEASURES

**5.1. Extinguishing media****Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Small Fire** Dry chemical, Carbon dioxide (CO<sub>2</sub>).

**Large Fire** Water spray, Foam.

**Unsuitable extinguishing media**

Avoid heavy hose streams.

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

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

**Hazardous Combustion Products**

Hydrogen fluoride, Hydrogen chloride, Nitrogen oxides (NO<sub>x</sub>), Carbon monoxide, Carbon dioxide (CO<sub>2</sub>), Sulfur oxides, various chlorinated and fluorinated organic compounds.

**5.3. Advice for firefighters**

Cool containers / tanks with water spray. Approach fire from upwind to avoid hazardous vapours and toxic decomposition products. Dike to prevent runoff. As in any fire, wear self-contained breathing apparatus and full protective gear.

**Section 6: ACCIDENTAL RELEASE MEASURES****6.1. Personal precautions, protective equipment and emergency procedures****Personal Precautions**

It is recommended to have a predetermined plan for the handling of spills. Empty, closable vessels for the collection of spills should be available.

In case of large spill (involving 1 tonnes of the product or more):

1. use personal protection equipment (see Section 8)
2. call emergency telephone number in Section 1.
3. Alert authorities.

Observe all safety precautions when cleaning up spills. Use personal protection equipment. Depending on the magnitude of the spill this may mean wearing respirator, face mask or eye protection, chemical resistant clothing, gloves and rubber boots. Stop the source of the spill immediately if safe to do so. Keep unprotected persons away from the spill area.

For further clean-up instructions, call FMC Emergency Hotline number listed in Section 1 "Product and Company Identification" above.

**For emergency responders**

Use personal protection recommended in Section 8.

**6.2. Environmental precautions**

Contain the spill to prevent any further contamination of surface, soil or water. Wash waters must be prevented from entering surface water drains. Uncontrolled discharge into water courses must be alerted to the appropriate regulatory body.

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

It is recommended to consider possibilities to prevent damaging effects of spills, such as bunding or capping.

Nearby surface water drains should be covered. Minor spills on the floor or other impervious surface should immediately be swept up or preferably vacuumed up using equipment with high efficiency final filter. Transfer to suitable containers. Clean area with detergent and water. Do not let wash liquid enter drains or waterways. Absorb wash liquid with an inert absorbent such as universal binder, Fuller's earth, bentonite or other absorbent clay and collect in suitable containers. The used containers should be properly closed and labelled.

Large spills in water should be contained as much as possible by isolation of the contaminated water. The contaminated water must be collected and removed for treatment or disposal.

**Methods for cleaning up**

Pick up and transfer to properly labeled containers.

**6.4. Reference to other sections**

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

**Section 7: HANDLING AND STORAGE****7.1. Precautions for safe handling**

**Handling**

Pregnant women should not work with this product.

It is recommended to handle the material by mechanical means as much as possible. Adequate ventilation or local exhaust ventilation is required. The exhaust gases should be filtered or treated otherwise. For personal protection in this situation, see section 8.

Remove and wash contaminated clothing before re-use. Wash thoroughly after handling. Use personal protective equipment. Do not discharge to the environment. Do not contaminate water when disposing of equipment wash waters. Collect all waste material and remains from cleaning equipment, etc., and dispose of as hazardous waste. See section 13 for disposal.

**Hygiene measures**

Handle in accordance with good industrial hygiene and safety practice.

**7.2. Conditions for safe storage, including any incompatibilities****Storage**

The product is stable under normal conditions of warehouse storage. Protect from frost, heat and sunlight. Store at 5 - 30°C.

Store in closed, labelled containers. The storage room should be constructed of incombustible material, closed, dry, ventilated and with impermeable floor, without access of unauthorised persons or children. A warning sign reading "POISON" is recommended. The room should only be used for storage of chemicals. Food, drink, feed and seed should not be present. A hand wash station should be available.

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

The product is a registered pesticide which may only be used for the applications it is registered for, in accordance with a label approved by the regulatory authorities.

**Risk Management Methods (RMM)**

The information required is contained in this Safety Data Sheet.

**Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION****8.1. Control parameters**

An 8-hr TWA exposure limit of 0.7 mg/m<sup>3</sup> is recommended by the manufacturer for fluazinam.

**Derived No Effect Level (DNEL)** 0.004 mg/kg bw/day (fluazinam).

**Predicted No Effect Concentration (PNEC)** 0.53 ug/L (fluazinam).

**8.2. Exposure controls****Engineering measures**

When used in a closed system, personal protection equipment will not be required. The following is meant for other situations, when the use of a closed system is not possible, or when it is necessary to open the system. Consider the need to render equipment or piping systems non-hazardous before opening.

The precautions mentioned below are primarily meant for handling of the undiluted product and for preparing the spray solution, but can be recommended for spraying as well.

**Personal protective equipment****Eye/Face Protection**

Wear face mask rather than goggles or safety glasses. The possibility of eye contact should be excluded. The work area and storage formulation area must have emergency eyewash and showers.

**Hand Protection**

Wear long chemical resistant gloves, such as barrier laminate, butyl rubber or nitrile rubber.

The breakthrough times of these materials for the product are unknown. Generally, however, the use of protective gloves will give only partial protection against dermal exposure. Small tears in the gloves and cross-contamination can easily occur. It is recommended to limit the work to be done manually and to change the gloves frequently. Be careful not to touch anything with contaminated gloves. Used gloves should be thrown out and not be reused.

**Skin and Body Protection**

Wear appropriate chemical resistant clothing to prevent skin contact depending on the extent of exposure. During most normal work situations where exposure to the material cannot be avoided for a limited time span, waterproof pants and apron of chemical resistant material or coveralls of polyethylene (PE) will be sufficient. Coveralls of PE must be discarded after use if contaminated. In cases of appreciable or prolonged exposure, coveralls of barrier laminate may be required.

**Respiratory Protection**

The product does not automatically present an airborne exposure concern during normal handling. In the event of an accidental discharge of the material which produces a heavy vapour or mist, workers should put on officially approved respiratory protection equipment with a universal filter type including particle filter.

**Environmental exposure controls**

The product should not be allowed to enter drains, water courses or the soil. Local authorities should be advised if significant spillages cannot be contained.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

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

Physical State	Liquid
Appearance	Liquid
Odor	almost odorless
Color	Light yellow to Pale red-brown
Odor threshold	No information available
pH	7.5 - 8.3
Melting point/freezing point	No information available
Boiling Point/Range	Decomposes upon heating
Flash point	> 103 °C / (Pensky-Martens closed cup)
Evaporation Rate	No information available
Flammability (solid, gas)	
Flammability Limit in Air	
Upper flammability limit:	No information available
Lower flammability limit:	No information available
Vapor pressure	Fluazinam : $1.1 \times 10^{-3}$ Pa @ 20°C
Vapor density	No information available
Specific gravity	1.28 @ 20°C
Water solubility	Fluazinams löslighet vid 20 °C: 0.042 mg/L @ pH 50.052 mg/L @ pH 71.33 mg/L @ pH 9
Solubility in other solvents	No information available
Partition coefficient	Fluazinam : log Kow = 3.56 @ 25°C
Autoignition temperature	>400 °C
Decomposition temperature	No information available
Viscosity, kinematic	1400 - 1800 mPa.s, beroende på skjuvhastighet
Viscosity, dynamic	No information available
Explosive properties	Not explosive
Oxidizing properties	Non-oxidizing

**9.2. Other information**

Softening point	No information available
Molecular weight	No information available
VOC content (%)	No information available
Relative density	1.28 @ 20°C
Bulk density	No information available
K <sub>st</sub>	No information available

## Section 10: STABILITY AND REACTIVITY

**10.1. Reactivity**

To our knowledge, the product has no special reactivities.

**10.2. Chemical stability**

The product is stable during normal handling and storage at ambient temperatures.

**Explosion data**

**Sensitivity to Mechanical Impact** No information available.

**Sensitivity to Static Discharge** No information available.

**10.3. Possibility of hazardous reactions****Hazardous polymerization**

Hazardous polymerization does not occur.

**Hazardous reactions**

None known.

**10.4. Conditions to avoid**

Heating can release hazardous gases.

**10.5. Incompatible materials**

None known.

**10.6. Hazardous decomposition products**

See Section 5.2 for more information.

**Section 11: TOXICOLOGICAL INFORMATION****11.1. Information on toxicological effects****Acute toxicity****Product Information**

Product does not present an acute toxicity hazard based on known or supplied information.

<b>LD50 Oral</b>	> 2000 mg/kg (rat) (Method OECD 425)
<b>LD50 Dermal</b>	> 2000 mg/kg (rat) (Method: OECD 402)
<b>LC50 Inhalation (dust)</b>	> 3.56 mg/L 4 hr (rat) (Method: OECD 403)

<b>Skin corrosion/irritation</b>	Mildly irritating (rabbit). (Method: OECD 404).
<b>Serious eye damage/eye irritation</b>	Mildly irritating (rabbit). (Method: OECD 405).
<b>Sensitization</b>	Sensitizer (Method OECD 429)

<b>Mutagenicity</b>	The product contains no ingredients known to be mutagenic.
<b>Carcinogenicity</b>	The product contains no ingredients known to be carcinogenic.

<b>Reproductive toxicity</b>	In teratology studies on fluazinam in rats and rabbits (method US-EPA 83-3), increased incidences of fetal abnormalities were observed, such as placental abnormalities, fused or incompletely ossified sternebrae, abnormalities of the head bones, not developed renal papillae and distended ureter(s).
<b>STOT - single exposure</b>	No specific effects after single exposure have been observed.
<b>STOT - repeated exposure</b>	Causes damage to organs through prolonged or repeated exposure. See listed target organs below.

**Target organ effects  
Symptoms**

Liver.  
Allergic reactions. The symptoms of the allergic effect range from mildly itchy, papular rash to painful, weeping and blistering dermatitis. In animal tests, the main symptoms after oral intake were disturbance of respiration and decreased activity.

**Aspiration hazard**

The product does not present an aspiration pneumonia hazard.

## Section 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

**Ecotoxicity**

The ecotoxicity of the product is measured as:

Kalat: Kirjolohi (*Onchorhynchus mykiss*) = 96-h LC<sub>50</sub>: 0.16 mg/L

Selkärangattomat: Vesikirput (*Daphnia magna*) = 48-h EC<sub>50</sub>: 0.23 mg/L

Levät: Viherlevä (*Desmodesmus subspicatus*) = 96-h IrC<sub>50</sub>: 0.13 mg/L

Kasvit: Limaska (*Lemna gibba*) = 7-day E rC<sub>50</sub>: 0.57 mg/L

Kasvit: Limaska (*Lemna gibba*) = 7-day NOECr: 0.094 mg/L

Linnit: Japaninviiiriäinen (*Coturnix coturnix japonica*) = LD<sub>50</sub>: > 2000 mg/kg

Kastemadot: *Eisenia foetida*, 14-day LC<sub>50</sub>: > 1000 mg/kg dry soil

Mesipistiäiset: Mehiläiset (*Apis mellifera*) = 48-h LD<sub>50</sub>, contact: > 100 ug/bee

Mesipistiäiset: Mehiläiset (*Apis mellifera*) = 48-h LD<sub>50</sub>, oral: > 100 ug/bee

Fluazinam (79622-59-6)				
Active Ingredient(s)	Duration	Species	Value	Units
Fluazinam	96 h LC <sub>50</sub>	<i>Onchorhynchus mykiss</i>	110	µg/L
	48 h LC <sub>50</sub>	<i>Daphnia magna</i>	190	µg/L
	7-Day EC <sub>50</sub>	<i>Lemna gibba</i> (duckweed)	>200	µg/L
	28-day NOEC	<i>Onchorhynchus mykiss</i>	12	µg/L
	21 d NOEC	<i>Daphnia magna</i>	>12.5	µg/L

### 12.2. Persistence and degradability

Fluazinam is biodegradable, but it does not meet the criteria for being readily biodegradable. It undergoes degradation in the environment and in waste water treatment plants. Primary degradation half-lives for fluazinam vary much with circumstances, but are usually a few months in aerobic soil and water.

### 12.3. Bioaccumulative potential

Bioaccumulation is unlikely.

### 12.4. Mobility in soil

**Mobility in soil**

Low mobility in soil.

### 12.5. Results of PBT and vPvB assessment



None of the ingredients in the product meets the criteria for being PBT or vPvB.

#### **12.6. Other adverse effects**

None known

### **Section 13: DISPOSAL CONSIDERATIONS**

#### **13.1. Waste treatment methods**

##### **Residual waste**

Remaining quantities of the material and empty but unclean packaging should be regarded as hazardous waste. Disposal of waste and packaging must always be in accordance with all applicable local regulations.

According to the Waste Framework Directive (2008/98/EC), possibilities for reuse or reprocessing should first be considered. If this is not feasible, the material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing.

Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

##### **Contaminated containers and packages**

It is recommended to consider possible ways of disposal in the following order:

1. Reuse or recycling should first be considered. Reuse is prohibited except by the authorisation holder. If offered for recycling, containers must be emptied and triply rinsed (or equivalent). Do not discharge rinsing water to sewer systems.
2. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.
3. Delivery of the packaging to a licensed service for disposal of hazardous waste.
4. Disposal in a landfill or burning in open air should only occur as a last resort. For disposal in a landfill containers should be emptied completely, rinsed and punctured to make them unusable for other purposes. If burned, stay out of smoke.

### **Section 14: TRANSPORT INFORMATION**

#### **IMDG/IMO**

- |  |   |
|--|---|
| <b>14.1 UN/ID no</b>   | UN3082  |
| <b>14.2 Proper Shipping Name</b>   | Environmentally hazardous substance, liquid, n.o.s.(fluatsinami) (fluatsinami)  |
| <b>14.3 Hazard class</b>   | 9   |
| <b>14.4 Packing Group</b>  | III   |
| <b>14.5 Environmental Hazards</b>  | Yes   |
| <b>Environmental Hazard</b>  | Marine Pollutant  |
| <b>14.6 Special Provisions</b>   | Avoid any unnecessary contact with the product. Misuse can result in damage to health. Do not release to the environment. |
| <b>14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b> | The product is not transported in bulk by ship.   |

#### **RID**

- |                                  |  |
|----------------------------------|--|
| <b>14.1 UN/ID no</b>             | UN3082   |
| <b>14.2 Proper Shipping Name</b> | Environmentally hazardous substance, liquid, n.o.s.(fluazinam) (fluazinam) |
| <b>14.3 Hazard class</b>         | 9  |
| <b>14.4 Packing Group</b>        | III  |
| <b>14.5 Environmental Hazard</b> | Marine Pollutant   |

**14.6 Special Provisions**

Avoid any unnecessary contact with the product. Misuse can result in damage to health. Do not release to the environment.

**ADR/RID****14.1 UN/ID no**

UN3082

**14.2 Proper Shipping Name**

Environmentally hazardous substance, liquid, n.o.s.(fluazinam) (fluazinam)

**14.3 Hazard class**

9

**14.4 Packing Group**

III

**14.5 Environmental Hazard**

Marine Pollutant

**14.6 Special Provisions**

Avoid any unnecessary contact with the product. Misuse can result in damage to health. Do not discharge to the environment.

**ICAO/IATA****14.1 UN/ID no**

UN3082

**14.2 Proper Shipping Name**

Environmentally hazardous substance, liquid, n.o.s.(fluazinam) (fluazinam)

**14.3 Hazard class**

9

**14.4 Packing Group**

III

**14.5 Environmental Hazard**

Marine Pollutant

**14.6 Special Provisions**

Avoid any unnecessary contact with the product. Misuse can result in damage to health. Do not release to the environment.

## Section 15: REGULATORY INFORMATION

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

Seveso category in Annex I to Dir. 2012/18/EU: dangerous for the environment.

The substance is covered by EU chemical legislation.

The employer shall assess any risks to the safety or health and any possible effect on the pregnancies or breastfeeding of workers and decide what measures should be taken (Dir. 92/85/EEC).

Young people under the age of 18 are not allowed to work with the substance.

**European Union****Authorizations and/or restrictions on use:**

This product does not contain substances subject to authorization (Regulation (EC) No. 1907/2006 (REACH), Annex XIV)

This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

**Persistent Organic Pollutants**

Not Applicable

**Ozone-depleting substances (ODS) regulation (EC) 1005/2009**

Not Applicable

**International Inventories**

Chemical name	TSCA (United States)	DSL (Canada)	EINECS/ELINCS (Europe)	ENCS (Japan)	China (IECSC)	KECL (Korea)	PICCS (Philippines)	AICS (Australia)
Fluazinam 79622-59-6			X			X		
Alcohols, C13-15 Branched	X	X	X		X			

and Linear, Ethoxylated 157627-86-6								
1,2 benzisothiazolin-3-one 2634-33-5	X	X	X	X	X	X	X	X

**15.2. Chemical safety assessment**

A chemical safety assessment is not required to be included for this product.

## Section 16: OTHER INFORMATION

**Key or legend to abbreviations and acronyms used in the safety data sheet****Full text of H-Statements referred to under sections 2 and 3**

H302 - Harmful if swallowed

H315 - Causes skin irritation

H317 - May cause an allergic skin reaction

H318 - Causes serious eye damage

H319 - Causes serious eye irritation

H332 - Harmful if inhaled

H361d - Suspected of damaging the unborn child

H400 - Very toxic to aquatic life

H410 - Very toxic to aquatic life with long lasting effects

H412 - Harmful to aquatic life with long lasting effects

EUH401 - To avoid risks to human health and the environment, comply with the instructions for use

**Legend**

<b>ADR:</b>	European Agreement concerning the International Carriage of Dangerous Goods by Road
<b>CAS:</b>	CAS (Chemical Abstracts Service)
<b>Ceiling:</b>	Maximum limit value:
<b>DNEL:</b>	Derived No Effect Level (DNEL)
<b>EINECS:</b>	EINECS (European Inventory of Existing Chemical Substances)
<b>GHS:</b>	Globally Harmonized System (GHS)
<b>IATA:</b>	International Air Transport Association (IATA)
<b>ICAO:</b>	International Civil Aviation Organization
<b>IMDG:</b>	International Maritime Dangerous Goods (IMDG)
<b>LC50:</b>	LC50 (lethal concentration)
<b>LD50:</b>	LD50 (lethal dose)
<b>PBT:</b>	Persistent, Bioaccumulative, and Toxic (PBT) Chemicals
<b>RID:</b>	Regulations Concerning the International Transport of Dangerous Goods by Rail
<b>STEL:</b>	Short term exposure limit
<b>SVHC</b>	SVHC: Substances of Very High Concern for Authorization:
<b>TWA:</b>	time weighted average
<b>vPvB:</b>	very Persistent and very Bioaccumulative

**Classification procedure**

Sensitisation – skin: test data

Toxic to reproduction: calculation rules

Hazards to the aquatic environment: test data

**Key literature references and sources for data**

Data measured on the product are unpublished company data. Data on ingredients are available from published literature and can be found several places.

**Revision date:** 2020-06-12

**Reason for revision:** Format Change.

**Training Advice** This material should only be used by persons who are made aware of its hazardous properties and have been instructed in the required safety precautions.

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**End of Safety Data Sheet**