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# Conforms to EU Regulation 1907/2006/EC as amended.

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

#### 1.1 Product identifier

Trade name : Performax™ PM3606 Water Treatment Chemical

™ Trademark, Solenis or its subsidiaries or affiliates,

registered in various countries

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

Use of the Substance/Mixture : Water treatment chemical

1.3 Details of the supplier of the safety data sheet Solenis Pesetastraat 62 2991 XT Barendrecht Netherlands Solenis UK Industries Limited	1.4 Emergency telephone number +1-302-502-0991 , or contact your local emergency telephone number at 112
P. O. Box 38, Cleckheaton Rd, Low Moor, Bradford, BD12 0JZ, United Kingdom	
E-mail address of person responsible for the SDS:	
EHSProductSafetyTeam@solenis.com	
Product Information Contact your local Solenis representative	

## **SECTION 2: Hazards identification**

## 2.1 Classification of the substance or mixture

# Classification (REGULATION (EC) No 1272/2008)

Skin corrosion, Category 1 H314: Causes severe skin burns and eye damage.

Serious eye damage, Category 1 H318: Causes serious eye damage.

Skin sensitisation, Category 1 H317: May cause an allergic skin reaction.

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# 2.2 Label elements

## Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms





Signal word : Danger

Hazard statements : H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

Precautionary statements : Prevention:

P261 Avoid breathing mist or vapours.

P280 Wear protective gloves/ protective clothing/ eye

protection/ face protection.

Response:

P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do

NOT induce vomiting.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. P304 + P340 + P310 IF INHALED: Remove person to fresh

air and keep comfortable for breathing. Immediately call a

POISON CENTER/ doctor.

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a

POISON CENTER/ doctor.

Hazardous components which must be listed on the label:

Tripotassium orthophosphate

Reaction mass of trisodium 2-(hydroxyphosphinato)succinate and pentasodium 1-

 $(hydroxyphosphinato) butane\hbox{-}1,2,3,4-tetra carboxylate$ 

potassium hydroxide

mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no.247- 500-7] and 2-methyl-2H-

isothiazol-3-one [EC no. 220-239-6] (3:1);

## 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

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

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Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) 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

# Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
Tripotassium orthophosphate	7778-53-2 231-907-1 01-2119971078-30- xxxx	Eye Dam. 1; H318 STOT SE 3; H335 (Respiratory system)	>= 3 - < 5
Reaction mass of trisodium 2- (hydroxyphosphinato)succinate and pentasodium 1- (hydroxyphosphinato)butane- 1,2,3,4-tetracarboxylate	Not Assigned 701-079-0 01-2120227654-56- xxxx	Skin Sens. 1; H317	>= 2,5 - < 5
TOLYLTRIAZOLE, SODIUM SALT	64665-57-2 265-004-9 01-2119980062-42- xxxx	Acute Tox. 4; H302 Skin Corr. 1B; H314 Eye Dam. 1; H318 Aquatic Chronic 2; H411	>= 1 - < 2,5
potassium hydroxide	1310-58-3 215-181-3 01-2119487136-33- xxxx	Met. Corr. 1; H290 Acute Tox. 4; H302 Skin Corr. 1A; H314 Eye Dam. 1; H318  specific concentration limit Skin Corr. 1A; H314 >= 5 % Skin Corr. 1B; H314 2 - < 5 % Skin Irrit. 2; H315 0,5 - < 2 % Eye Irrit. 2; H319 0,5 - < 2 %	>=1-<2
Tetrapotassium pyrophosphate	7320-34-5 230-785-7 01-2119489369-18- xxxx	Eye Irrit. 2; H319	>= 1 - < 2,5
mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no.247-	55965-84-9	Acute Tox. 3; H301 Acute Tox. 2; H330	>= 0 - < 0,0002

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500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1);	Acute Tox. 2; H310 Skin Corr. 1C; H314 Eye Dam. 1; H318 Skin Sens. 1A; H317 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 EUH071
	M-Factor (Acute aquatic toxicity): 100 M-Factor (Chronic aquatic toxicity): 100
	specific concentration limit Skin Corr. 1C; H314 >= 0,6 % Skin Irrit. 2; H315 0,06 - < 0,6 % Eye Irrit. 2; H319 0,06 - < 0,6 % Skin Sens. 1A; H317 >= 0,0015 % Eye Dam. 1; H318 >= 0,6 %

For explanation of abbreviations see section 16.

## **SECTION 4: First aid measures**

# 4.1 Description of first aid measures

General advice : Move out of dangerous area.

Consult a physician.

Show this safety data sheet to the doctor in attendance.

Do not leave the victim unattended.

If inhaled : Move to fresh air.

If breathed in, move person into fresh air.

Keep patient warm and at rest.

If unconscious, place in recovery position and seek medical

advice.

If symptoms persist, call a physician.

In case of skin contact : Remove contaminated clothing. If irritation develops, get

medical attention.

If on skin, rinse well with water.

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Wash contaminated clothing before re-use.

In case of eye contact : In the case of contact with eyes, rinse immediately with plenty

of water and seek medical advice.

Continue rinsing eyes during transport to hospital.

Remove contact lenses. Protect unharmed eye.

If swallowed : Get medical attention immediately.

Do NOT induce vomiting. Rinse mouth with water.

Do not give milk or alcoholic beverages.

Never give anything by mouth to an unconscious person.

If symptoms persist, call a physician.

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

Symptoms : Signs and symptoms of exposure to this material through

breathing, swallowing, and/or passage of the material through

the skin may include:

stomach or intestinal upset (nausea, vomiting, diarrhea)

irritation (nose, throat, airways)

Cough

lung edema (fluid buildup in the lung tissue)

Risks : May cause an allergic skin reaction.

Causes serious eye damage.

Causes severe burns.

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

Treatment : No hazards which require special first aid measures.

## **SECTION 5: Firefighting measures**

## 5.1 Extinguishing media

Suitable extinguishing media : Use extinguishing measures that are appropriate to local

circumstances and the surrounding environment.

Water spray

Foam

Carbon dioxide (CO2)

Dry chemical

Unsuitable extinguishing

media

: High volume water jet

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# 5.2 Special hazards arising from the substance or mixture

Specific hazards during

firefighting

: Do not allow run-off from fire fighting to enter drains or water

courses.

Hazardous combustion

products

: Carbon monoxide Carbon dioxide (CO2) nitrogen oxides (NOx)

toxic fumes

Phosphorus compounds

potassium oxide Oxides of phosphorus

hydrogen cyanide in reducing atmospheres

#### 5.3 Advice for firefighters

for firefighters

Special protective equipment : In the event of fire, wear self-contained breathing apparatus.

Specific extinguishing

methods

: Product is compatible with standard fire-fighting agents.

Further information : Fire residues and contaminated fire extinguishing water must

be disposed of in accordance with local regulations.

## **SECTION 6: Accidental release measures**

## 6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.

Persons not wearing protective equipment should be excluded

from area of spill until clean-up has been completed.

Comply with all applicable federal, state, and local regulations.

## 6.2 Environmental precautions

**Environmental precautions** Prevent product from entering drains.

Prevent further leakage or spillage if safe to do so.

If the product contaminates rivers and lakes or drains inform

respective authorities.

## 6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Keep in suitable, closed containers for disposal.

#### 6.4 Reference to other sections

For further information see Section 8 and Section 13 of the safety data sheet.

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# **SECTION 7: Handling and storage**

## 7.1 Precautions for safe handling

Advice on safe handling : Do not breathe vapours/dust.

Do not smoke.

Container hazardous when empty.

Avoid exposure - obtain special instructions before use.

Avoid contact with skin and eyes.

Smoking, eating and drinking should be prohibited in the

application area.

For personal protection see section 8.

Dispose of rinse water in accordance with local and national

regulations.

Advice on protection against

fire and explosion

Normal measures for preventive fire protection.

Hygiene measures : Wash hands before breaks and at the end of workday. When

using do not eat or drink. Ensure that eyewash stations and safety showers are close to the workstation location. When

using do not smoke.

#### 7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

Keep container tightly closed in a dry and well-ventilated place. Observe label precautions. Electrical installations / working materials must comply with the technological safety

standards.

Further information on

storage stability

: No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s) : No data available

## **SECTION 8: Exposure controls/personal protection**

#### 8.1 Control parameters

## **Occupational Exposure Limits**

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
potassium hydroxide	1310-58-3	STEL	2 mg/m3	GB EH40
mixture of: 5- chloro-2-methyl-4-	55965-84-9	TWA	0,076 mg/m3	SUPLR EXP

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isothiazolin-3-one [EC no.247- 500-7] and 2-methyl-2H- isothiazol-3-one [EC no. 220-239-6] (3:1);				
		STEL	0,23 mg/m3	SUPLR EXP
	Further information: 5-chloro-2-methyl-2H-isothiazolin-3-one			
		TWA	1,5 mg/m3	SUPLR EXP
		STEL	4,5 mg/m3	SUPLR EXP
	Further information: 2-methyl-2H-isothiazolin-3-one			

## Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
potassium hydroxide	Workers	Inhalation	Long-term local effects	1 mg/m3
Remarks:	respiratory tract irritation			
	General population	Inhalation	Long-term local effects	1 mg/m3
Remarks:	respiratory tract	irritation		

## 8.2 Exposure controls

## **Engineering measures**

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

## Personal protective equipment

Eye protection : Wear chemical splash goggles and face shield when there is

potential for exposure of the eyes or face to liquid, vapor or

mist.

Maintain eye wash station in immediate work area.

Hand protection

Remarks : The suitability for a specific workplace should be discussed

with the producers of the protective gloves.

Skin and body protection : Wear as appropriate:

Impervious clothing Chemical resistant apron

Safety shoes

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Wear resistant gloves (consult your safety equipment

supplier).

Discard gloves that show tears, pinholes, or signs of wear.

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# **SECTION 9: Physical and chemical properties**

# 9.1 Information on basic physical and chemical properties

Physical state : liquid

Colour amber

Odour No data available

Odour Threshold No data available

< -4 °C Melting point/freezing point

Boiling point/boiling range > 100 °C

Flammability No data available

Upper explosion limit / Upper

flammability limit

No data available

Lower explosion limit / Lower : No data available

flammability limit

Flash point : Not applicable

Decomposition temperature : No data available

: > 11,8 рΗ

Viscosity

: No data available Viscosity, dynamic

Viscosity, kinematic No data available

Solubility(ies)

Water solubility completely miscible

Solubility in other solvents No data available

Partition coefficient: n-

octanol/water

: No data available

Vapour pressure : 24 hPa (20 °C)

Calculated Vapor Pressure

Relative density 1,23 (25 °C)

Density 1,23 g/cm3 (25 °C)

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Relative vapour density : No data available

Particle characteristics

Assessment : No data available

Particle size : No data available

Particle Size Distribution : No data available

Dustiness : No data available

Shape : No data available

Crystallinity : No data available

Surface treatment

/Coatings

No data available

9.2 Other information

Oxidizing properties : No data available

Self-ignition : No data available

Evaporation rate : No data available

# **SECTION 10: Stability and reactivity**

## 10.1 Reactivity

No decomposition if stored and applied as directed.

#### 10.2 Chemical stability

Stable under recommended storage conditions.

# 10.3 Possibility of hazardous reactions

Hazardous reactions : Product will not undergo hazardous polymerization.

10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

10.5 Incompatible materials

Materials to avoid : Acids

Alcohols Amines

chlorinated solvents halogenated hydrocarbons

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Metals

Reducing agents Strong oxidizing agents

This product should not be used in conjunction with trimethylol propane or trimethylol propane-derived products. There is a possibility that bicyclic phosphates or phosphites can be produced as a result of the thermal decomposition of this product in combination with trimethylol propane, trimethylol propane-derived products or their corresponding trimethylol propane alkane homologs. Bicyclic phosphates and phosphites are a class of materials with acute neurotoxic properties which produce characteristic convulsive seizures in

test animals.

## 10.6 Hazardous decomposition products

Hazardous decomposition

products

Carbon monoxide

Carbon dioxide (CO2) Nitrogen oxides (NOx)

toxic fumes potassium oxide Oxides of phosphorus

Hydrogen cyanide (hydrocyanic acid)

## **SECTION 11: Toxicological information**

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

## **Acute toxicity**

Not classified based on available information.

#### Components:

## Tripotassium orthophosphate:

Acute oral toxicity : LD50 (Rat): 4.260 mg/kg

Acute inhalation toxicity LC 50 (Rat): > 0.83 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Assessment: Not classified as acutely toxic by inhalation

under GHS.

Remarks: Information given is based on data obtained from

similar substances.

LD50 (Rabbit): > 7.970 mg/kg Acute dermal toxicity

Test substance: (as aqueous solution)

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Reaction mass of trisodium 2-(hydroxyphosphinato)succinate and pentasodium 1-(hydroxyphosphinato)butane-1,2,3,4-tetracarboxylate:

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg

Method: OECD Test Guideline 401

Acute dermal toxicity : LD50 (Rat): > 2.000 mg/kg

Method: OECD Test Guideline 402

**TOLYLTRIAZOLE, SODIUM SALT:** 

Acute oral toxicity : LD50 (Rat, female): 735 mg/kg

Acute dermal toxicity : LD50 (Rabbit): > 2.000 mg/kg

Assessment: Not classified as acutely toxic by dermal

absorption under GHS.

potassium hydroxide:

Acute oral toxicity : LD50 (Rat): 333 mg/kg

Acute dermal toxicity : LD50 (Rabbit): 1.260 mg/kg

Assessment: No adverse effect has been observed in acute

dermal toxicity tests.

mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no.247- 500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1);:

Acute oral toxicity : LD50 (Rat): > 66 mg/kg

Acute inhalation toxicity : LC 50 (Rat): 0,33 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Remarks: Aerosol

Assessment: Corrosive to the respiratory tract.

Acute dermal toxicity : LD50 (Rabbit): 141 mg/kg

Skin corrosion/irritation

Causes severe burns.

**Product:** 

Remarks : May cause skin irritation in susceptible persons.

Causes severe skin burns and eye damage. The feeling of irritation or pain may be delayed.

**Components:** 

**Tripotassium orthophosphate:** 

Species : reconstructed human epidermis (RhE)

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Method : OECD Test Guideline 439

Result : Not irritating to skin

Reaction mass of trisodium 2-(hydroxyphosphinato)succinate and pentasodium 1-(hydroxyphosphinato)butane-1,2,3,4-tetracarboxylate:

Species : Rabbit

Method : OECD Test Guideline 404
Result : Mildly irritating to skin

**TOLYLTRIAZOLE, SODIUM SALT:** 

Result : Causes burns.

potassium hydroxide:

Result : Corrosive to skin

Tetrapotassium pyrophosphate:

Result : Mildly irritating to skin

mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no.247- 500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1);:

Species : Rabbit

Result : Corrosive to skin

Serious eye damage/eye irritation

Causes serious eye damage.

Product:

Remarks : May cause irreversible eye damage.

**Components:** 

**Tripotassium orthophosphate:** 

Result : Corrosive to eyes

Reaction mass of trisodium 2-(hydroxyphosphinato)succinate and pentasodium 1-(hydroxyphosphinato)butane-1,2,3,4-tetracarboxylate:

Species : Rabbit

Result : Mildly irritating to eyes

**TOLYLTRIAZOLE, SODIUM SALT:** 

Result : Corrosive to eyes

potassium hydroxide:

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Result : Corrosive to eyes

#### Tetrapotassium pyrophosphate:

Result : Irritating to eyes

# mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no.247- 500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1);:

Species : Rabbit

Result : Corrosive to eyes

## Respiratory or skin sensitisation

#### Skin sensitisation

May cause an allergic skin reaction.

#### Respiratory sensitisation

Not classified based on available information.

**Product:** 

Remarks : May cause allergic skin reaction.

#### **Components:**

#### Tripotassium orthophosphate:

Test Type : Local lymph node assay (LLNA)

Species : Mouse

Method : OECD Test Guideline 429

Remarks : Information given is based on data obtained from similar

substances.

# Reaction mass of trisodium 2-(hydroxyphosphinato)succinate and pentasodium 1-(hydroxyphosphinato)butane-1,2,3,4-tetracarboxylate:

Test Type : Maximisation Test

Species : Guinea pig

Method : OECD Test Guideline 406

Result : May cause sensitisation by skin contact.

# mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no.247- 500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1);:

Result : Probability or evidence of high skin sensitisation rate in

humans

## Germ cell mutagenicity

Not classified based on available information.

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## **Components:**

Reaction mass of trisodium 2-(hydroxyphosphinato)succinate and pentasodium 1-(hydroxyphosphinato)butane-1,2,3,4-tetracarboxylate:

Genotoxicity in vitro : Test Type: Ames test

Test system: Salmonella typhimurium

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

GLP: yes

Genotoxicity in vivo : Test Type: chromosome aberration assay

Species: Mouse

Cell type: Bone marrow

Method: OECD Test Guideline 474

Result: negative

GLP: yes

#### Carcinogenicity

Not classified based on available information.

#### Reproductive toxicity

Not classified based on available information.

## STOT - single exposure

Not classified based on available information.

#### **Components:**

## **Tripotassium orthophosphate:**

Exposure routes : Inhalation

Target Organs : Respiratory Tract

Assessment : May cause respiratory irritation.

#### STOT - repeated exposure

Not classified based on available information.

## **Aspiration toxicity**

Not classified based on available information.

## 11.2 Information on other hazards

#### **Endocrine disrupting properties**

#### **Product:**

Assessment : The substance/mixture does not contain components

considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at

levels of 0.1% or higher.

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## **Further information**

**Product:** 

Remarks No data available

## **SECTION 12: Ecological information**

## 12.1 Toxicity

**Product:** 

Toxicity to fish LC50: 707 mg/l

Exposure time: 96 h

aquatic invertebrates

Toxicity to daphnia and other : EC0 (Daphnia (water flea)): 2.500 mg/l

Exposure time: 48 h

**Ecotoxicology Assessment** 

Chronic aquatic toxicity This product has no known ecotoxicological effects.

## **Components:**

## **Tripotassium orthophosphate:**

Toxicity to fish LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l

> Exposure time: 96 h Test Type: semi-static test

Method: OECD Test Guideline 203

GLP: yes

Remarks: Information given is based on data obtained from

similar substances.

aquatic invertebrates

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): > 100 mg/l

Exposure time: 48 h Test Type: static test

Method: OECD Test Guideline 202

GLP: yes

Remarks: Information given is based on data obtained from

similar substances.

Toxicity to algae/aquatic

plants

EC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l

End point: Growth inhibition

Exposure time: 72 h Test Type: static test

Method: OECD Test Guideline 201

GLP: yes

Remarks: Information given is based on data obtained from

similar substances.

NOEC (Desmodesmus subspicatus (green algae)): > 100 mg/l

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End point: Growth inhibition

Exposure time: 72 h Test Type: static test

Method: OECD Test Guideline 201

GLP: yes

Remarks: Information given is based on data obtained from

similar substances.

Reaction mass of trisodium 2-(hydroxyphosphinato)succinate and pentasodium 1-(hydroxyphosphinato)butane-1,2,3,4-tetracarboxylate:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l

> Exposure time: 96 h Test Type: semi-static test

Method: OECD Test Guideline 203

aquatic invertebrates

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): > 1.000 mg/l

Exposure time: 48 h Test Type: static test

Method: OECD Test Guideline 202

Toxicity to algae/aquatic

plants

EC50 (Pseudokirchneriella subcapitata (algae)): > 100 mg/l

End point: Growth inhibition

Exposure time: 72 h Test Type: static test

Method: OECD Test Guideline 201

Toxicity to daphnia and other : NOEC: 100 mg/l

aquatic invertebrates (Chronic toxicity)

Exposure time: 21 d

Species: Daphnia magna (Water flea)

Test Type: semi-static test

Method: OECD Test Guideline 211

#### **TOLYLTRIAZOLE, SODIUM SALT:**

: LC50 (Lepomis macrochirus (Bluegill sunfish)): > 173 mg/l Toxicity to fish

Exposure time: 96 h

LC50 (Oncorhynchus mykiss (rainbow trout)): ca. 25 mg/l

Exposure time: 96 h

aquatic invertebrates

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 280 mg/l

Exposure time: 48 h

Toxicity to algae/aquatic

plants

: ErC50 (Pseudokirchneriella subcapitata (green algae)): 26,2

mg/l

Exposure time: 72 h

Test Type: Growth inhibition

EbC50 (Pseudokirchneriella subcapitata (green algae)): 32

mg/l

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Exposure time: 96 h

Test Type: Growth inhibition

Toxicity to daphnia and other :

aquatic invertebrates (Chronic toxicity)

EC10: 0,4 mg/l Exposure time: 21 d

Species: Daphnia magna (Water flea)

Test Type: semi-static test

Method: OECD Test Guideline 211

Remarks: Information given is based on data obtained from

similar substances.

## potassium hydroxide:

**Ecotoxicology Assessment** 

Acute aquatic toxicity : This product has no known ecotoxicological effects.

Chronic aquatic toxicity : This product has no known ecotoxicological effects.

mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no.247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1);:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0,19 mg/l

Exposure time: 96 h

LC50 (Lepomis macrochirus (Bluegill sunfish)): 0,28 mg/l

Exposure time: 96 h

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 0,16 mg/l

Exposure time: 48 h

Toxicity to algae/aquatic

plants

: ErC50 (Pseudokirchneriella subcapitata (green algae)): 0,027

mg/l

Exposure time: 72 h

M-Factor (Acute aquatic

toxicity)

: 100

Toxicity to microorganisms : EC50 (activated sludge): 4,5 mg/l

Test Type: Respiration inhibition

M-Factor (Chronic aquatic

toxicity)

100

## 12.2 Persistence and degradability

**Product:** 

Biodegradability : Remarks: Not readily biodegradable.

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## **Components:**

# **Tripotassium orthophosphate:**

Biodegradability : Remarks: The methods for determining biodegradability are

not applicable to inorganic substances.

Reaction mass of trisodium 2-(hydroxyphosphinato)succinate and pentasodium 1-(hydroxyphosphinato)butane-1,2,3,4-tetracarboxylate:

Biodegradability : Result: Not readily biodegradable.

**TOLYLTRIAZOLE, SODIUM SALT:** 

Biodegradability : Result: Not readily biodegradable.

Method: OECD Test Guideline 301F

potassium hydroxide:

Biodegradability : Result: The methods for determining biodegradability are not

applicable to inorganic substances.

mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no.247- 500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1);:

Biodegradability : Biodegradation: 30 %

Exposure time: 28 d

Method: OECD Test Guideline 301B Remarks: Not readily biodegradable.

## 12.3 Bioaccumulative potential

**Product:** 

Bioaccumulation : Remarks: The bioaccumulation potential cannot be

determined.

## **Components:**

#### **TOLYLTRIAZOLE, SODIUM SALT:**

Partition coefficient: n-

octanol/water

: log Pow: 0,658

mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no.247- 500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1);:

Partition coefficient: n- : log Pow: <= 0,71

octanol/water Method: OECD Test Guideline 117

## 12.4 Mobility in soil

No data available

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#### 12.5 Results of PBT and vPvB assessment

**Product:** 

Assessment : This substance/mixture contains no components considered

to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of

0.1% or higher...

## 12.6 Endocrine disrupting properties

**Product:** 

Assessment : The substance/mixture does not contain components

considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at

levels of 0.1% or higher.

12.7 Other adverse effects

**Product:** 

Additional ecological

information

: No data available

## **SECTION 13: Disposal considerations**

#### 13.1 Waste treatment methods

Product : Do not dispose of waste into sewer.

Do not contaminate ponds, waterways or ditches with

chemical or used container.

Send to a licensed waste management company.

Dispose of in accordance with local regulations.

Contaminated packaging : Empty remaining contents.

Dispose of as unused product.

Empty containers should be taken to an approved waste

handling site for recycling or disposal.

Do not re-use empty containers.

## **SECTION 14: Transport information**

#### 14.1 UN number or ID number

**ADN:** UN3267

**ADR: UN3267** 

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IATA-DGR: UN3267

IMDG-Code: UN3267

**RID:** UN3267

## 14.2 UN proper shipping name

ADN: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (TRIAZOLE DERIVATIVE)
ADR: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (TRIAZOLE DERIVATIVE)
IATA-DGR: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (TRIAZOLE DERIVATIVE)
IMDG-Code: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (TRIAZOLE DERIVATIVE)

**RID**: Corrosive liquid, basic, organic, n.o.s. (TRIAZOLE DERIVATIVE)

## 14.3 Transport hazard class(es)

ADN: 8 ADR: 8 IATA-DGR: 8 IMDG-Code: 8

**RID**: 8

## 14.4 Packing group

ADN: III
ADR: III
IATA-DGR: III
IMDG-Code: III

RID: III

#### 14.5 Environmental hazards

ADN: Not applicable
ADR: Not applicable
IATA-DGR: Not applicable
IMDG-Code: Not applicable

RID: Not applicable

# 14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

## 14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

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Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

# **SECTION 15: Regulatory information**

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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances,

mixtures and articles (Annex XVII)

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).

REACH - List of substances subject to authorisation

(Annex XIV)

Regulation (EC) No 1005/2009 on substances that

deplete the ozone layer

Regulation (EU) 2019/1021 on persistent organic

pollutants (recast)

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the

control of major-accident hazards involving

dangerous substances.

Conditions of restriction for the following entries should be

considered: Number on list 3 Not applicable

Not applicable

Not applicable

Not applicable

Not applicable

Not applicable

# Other regulations:

Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.

## The components of this product are reported in the following inventories:

: On the inventory, or in compliance with the inventory **TCSI** 

**TSCA** Product contains substance(s) not listed on TSCA inventory.

AIIC Not in compliance with the inventory

DSL This product contains one or more components that are not on

the Canadian DSL and have annual quantity limits.

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ENCS : Not in compliance with the inventory

KECI : Not in compliance with the inventory

PICCS : On the inventory, or in compliance with the inventory

IECSC : On the inventory, or in compliance with the inventory

## 15.2 Chemical safety assessment

No data available

#### **SECTION 16: Other information**

#### Further information

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## Classification of the mixture: Classification procedure:

Skin Corr. 1 H314 Based on product data or assessment
Eye Dam. 1 H318 Based on product data or assessment

Skin Sens. 1 H317 Calculation method

## **Full text of H-Statements**

H290 : May be corrosive to metals.

H301 : Toxic if swallowed.
H302 : Harmful if swallowed.
H310 : Fatal in contact with skin.

H314 : Causes severe skin burns and eye damage.

H317 : May cause an allergic skin reaction.
H318 : Causes serious eye damage.
H319 : Causes serious eye irritation.

H330 : Fatal if inhaled.

H335 : May cause respiratory irritation.

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.

#### Full text of other abbreviations

Acute Tox. : Acute toxicity

Aquatic Acute : Short-term (acute) aquatic hazard Aquatic Chronic : Long-term (chronic) aquatic hazard

Eye Dam. : Serious eye damage

Eye Irrit. : Eye irritation

Met. Corr. : Corrosive to metals

Skin Corr. : Skin corrosion

Skin Sens. : Skin sensitisation

STOT SE : Specific target organ toxicity - single exposure

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GB EH40 : UK. EH40 WEL - Workplace Exposure Limits SUPLR EXP : Supplier-recommended exposure guidelines

GB EH40 / STEL : Short-term exposure limit (15-minute reference period)

SUPLR EXP / STEL : Short term exposure limit SUPLR EXP / TWA : Time weighted average

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN -Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx -Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx -Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA -International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO -International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID -Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Sources of key data used to compile the Safety Data Sheet Key literature references and sources of data SOLENIS Internal data

SOLENIS internal data including own and sponsored test reports

The UNECE administers regional agreements implementing harmonised classification for labelling (GHS) and transport.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is

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not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. This SDS has been prepared by the Solenis Environmental Health and Safety Department.

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