

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

#### 1.1. Product identifier

Product form : Mixture  
Product name : Protector  
Product code : 4000043

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

##### 1.2.1. Relevant identified uses

Main use category : Additive

##### 1.2.2. Uses advised against

No additional information available

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

Spirotech BV  
Churchill-laan 52  
5705 BK Helmond  
T 0031 492 57 89 89  
[www.spirotech.com](http://www.spirotech.com)

#### 1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Comment
Netherlands	Nationaal Vergiftigingen Informatie Centrum	Huispostnummer B.00.118 Postbus 85500 3508 GA Utrecht	+31 30 274 88 88	Only for the purpose of informing medical personnel in cases of acute intoxications

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP] Mixture/Substances: SDS EU > 2015: According to Regulation (EU) 2015/830, 2020/878 (REACH Annex II)

Corrosive to metals Not classified  
Skin corrosion/irritation, Category 2 H315  
Serious eye damage/eye irritation, Category 1 H318  
Skin sensitisation, Category 1 H317  
Hazardous to the aquatic environment — Chronic Hazard, Category 3 H412  
Full text of H-statements: see section 16

#### Adverse physicochemical, human health and environmental effects

No additional information available

#### 2.2. Label elements

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

Hazard pictograms (CLP) :



GHS05

GHS07

Signal word (CLP) :

Danger

Contains

: 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); Hydroxyphosphonoacetic acid

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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Hazard statements (CLP)	: H315 - Causes skin irritation. H317 - May cause an allergic skin reaction. H318 - Causes serious eye damage. H412 - Harmful to aquatic life with long lasting effects.
Precautionary statements (CLP)	: P280 - Wear eye protection, face protection, protective clothing, protective gloves. P302+P352 - IF ON SKIN: Wash with plenty of water. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P332+P313 - If skin irritation occurs: Get medical advice/attention. P362+P364 - Take off contaminated clothing and wash it before reuse. P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixture

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Disodium tetraborate decahydrate, borax decahydrate substance listed as REACH Candidate (Disodium tetraborate, anhydrous)	CAS-No.: 1303-96-4 EC-No.: 215-540-4 EC Index-No.: 005-011-01-1 REACH-no: 01-2119490790-32	5 – 15	Repr. 1B, H360FD
Sodium nitrate	CAS-No.: 7631-99-4 EC-No.: 231-554-3 REACH-no: 2119488221-41	< 5	Ox. Liq. 2, H272 Eye Irrit. 2, H319
Hydroxyphosphonoacetic acid	CAS-No.: 23783-26-8 EC-No.: 405-710-8 EC Index-No.: 015-159-00-1	< 5	Acute Tox. 4 (Oral), H302 STOT RE 2, H373 Skin Corr. 1B, H314 Skin Sens. 1, H317
Benzotriazole	CAS-No.: 95-14-7 EC-No.: 202-394-1 REACH-no: 01-2119979079-20	< 5	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318 Aquatic Chronic 2, H411
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)	CAS-No.: 55965-84-9 EC Index-No.: 613-167-00-5	< 0.5	Acute Tox. 2 (Inhalation), H330 Acute Tox. 2 (Dermal), H310 Acute Tox. 3 (Oral), H301 Skin Corr. 1C, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=100)

Full text of H-statements: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general : In all cases of doubt, or when symptoms persist, seek medical attention.

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First-aid measures after inhalation	: Remove to fresh air and keep at rest in a position comfortable for breathing. Transport to hospital immediately.
First-aid measures after skin contact	: Take off contaminated clothing. Rinse and then wash skin with water and soap. Transport to hospital immediately.
First-aid measures after eye contact	: First prolonged rinsing with water (contact lenses to be removed if this is easily done), then take to a doctor.

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

Symptoms/effects after inhalation	: Giddiness. Headache. Nausea.
Symptoms/effects after skin contact	: Irritation. Pain. Redness.
Symptoms/effects after eye contact	: Pungent. Pain. Redness. Blurred vision.
Symptoms/effects after ingestion	: Vomiting. abdominal cramps. Diarrhea. Headache.

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

None.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media	: Water spray, powder, foam, CO <sub>2</sub> .
Unsuitable extinguishing media	: None.

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

Fire hazard	: None.
Explosion hazard	: None.

### 5.3. Advice for firefighters

Precautionary measures fire	: No special precautions required.
Firefighting instructions	: No specific firefighting instructions required.
Other information	: None.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Do not touch spilled material. Do not breathe vapour. Do not breathe spray. Remove contaminated clothing and shoes.
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#### 6.1.1. For non-emergency personnel

No additional information available

#### 6.1.2. For emergency responders

No additional information available

### 6.2. Environmental precautions

Do not flush into surface water or sewer system.

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up	: Absorb spilled material with sand or earth.
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### 6.4. Reference to other sections

See Headings 8 and 13.

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### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling : Handle carefully. Avoid spillage.

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

Storage conditions : Keep container tightly closed and in well ventilated place. Keep out of frost.

#### 7.3. Specific end use(s)

Additive.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

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

No additional information available

##### 8.1.2. Recommended monitoring procedures

No additional information available

##### 8.1.3. Air contaminants formed

No additional information available

##### 8.1.4. DNEL and PNEC

No additional information available

##### 8.1.5. Control banding

No additional information available

#### 8.2. Exposure controls

##### 8.2.1. Appropriate engineering controls

No additional information available

##### 8.2.2. Personal protection equipment

###### 8.2.2.1. Eye and face protection

No additional information available

###### 8.2.2.2. Skin protection

**Other skin protection**

**Materials for protective clothing:**

Impermeable clothing

###### 8.2.2.3. Respiratory protection

No additional information available

###### 8.2.2.4. Thermal hazards

No additional information available

##### 8.2.3. Environmental exposure controls

No additional information available

### SECTION 9: Physical and chemical properties

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

Physical state : Liquid  
Appearance : Clear.  
Colour : Brown.

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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Odour	: odourless.
Odour threshold	: No data available.
pH	: 8 @ 20°C.
pH solution	: /.
Relative evaporation rate (butylacetate=1)	: 0.3
Melting point	: 0 °C
Freezing point	: No data available
Boiling point	: 100 °C
Flash point	: Not applicable.
Critical temperature	: /.
Auto-ignition temperature	: /.
Decomposition temperature	: /.
Flammability (solid, gas)	: Not applicable.
Vapour pressure	: 2332 Pa @ 20°C.
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 1.109 kg/l @ 20°C.
Solubility	: Completely soluble in water.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: 1 mm <sup>2</sup> /s @ 40°C.
Viscosity, dynamic	: 1 mPa·s @ 20°C.
Explosive properties	: Not applicable.
Oxidising properties	: Not applicable.
Lower explosive limit (LEL)	: /.
Upper explosive limit (UEL)	: /.

### 9.2. Other information

VOC content : 0 %

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Stable at ambient temperature and under normal conditions of use.

### 10.2. Chemical stability

Extremely high or low temperatures.

### 10.3. Possibility of hazardous reactions

None known.

### 10.4. Conditions to avoid

Protect from sunlight. Do not expose to temperatures exceeding 50 °C.

### 10.5. Incompatible materials

None.

### 10.6. Hazardous decomposition products

No hazardous decomposition products known.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

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Protector	
LD50 oral rat	/.
LD50 dermal rabbit	/.
Disodium tetraborate decahydrate, borax decahydrate (1303-96-4)	
LD50 oral rat	2500 mg/kg
LD50 dermal rabbit	≥ 5000 mg/kg
LC50 Inhalation - Rat (Dust/Mist)	≥ 50 mg/l/4h
Sodium nitrate (7631-99-4)	
LD50 oral rat	3430 mg/kg
LD50 dermal rat	> 5000 mg/kg
Benzotriazole (95-14-7)	
LD50 oral rat	560 mg/kg
LD50 dermal rabbit	> 5000 mg/kg
LC50 Inhalation - Rat	≥ 50 mg/l/4h
Skin corrosion/irritation	: Causes skin irritation. pH: 8 @ 20°C.
Serious eye damage/irritation	: Causes serious eye damage. pH: 8 @ 20°C.
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Hydroxyphosphonoacetic acid	
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Not classified
Protector	
Viscosity, kinematic	1 mm <sup>2</sup> /s @ 40°C.

## SECTION 12: Ecological information

### 12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Harmful to aquatic life with long lasting effects.

Disodium tetraborate decahydrate, borax decahydrate (1303-96-4)	
LC50 - Fish [1]	74 mg/l
Hydroxyphosphonoacetic acid	
EC50 - Crustacea [1]	140 mg/l 24 Hrs
Benzotriazole (95-14-7)	
LC50 - Fish [1]	240 mg/l (24 hrs).
EC50 - Crustacea [1]	15.8 mg/l

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### Benzotriazole (95-14-7)

EC50 72h - Algae [1]	75 mg/l
NOEC (acute)	940 mg/l (Daphnia, 3h)
NOEC chronic algae	10 mg/l (72h)

### 12.2. Persistence and degradability

No additional information available

### 12.3. Bioaccumulative potential

No additional information available

### 12.4. Mobility in soil

#### Protector

Ecology - soil	WGK 1. Soluble in water.
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### 12.5. Results of PBT and vPvB assessment

#### Component

Disodium tetraborate decahydrate, borax decahydrate (1303-96-4)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
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### 12.6. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Regional legislation (waste)	: Dispose of in accordance with relevant local regulations.
Waste treatment methods	: Do not flush into surface water or sewer system.
Product/Packaging disposal recommendations	: Disposal must be done according to official regulations.

## SECTION 14: Transport information

In accordance with ADR

### 14.1. UN number

UN-No. (ADR) : Not regulated

### 14.2. UN proper shipping name

Proper Shipping Name (ADR) : Not regulated

### 14.3. Transport hazard class(es)

#### ADR

Transport hazard class(es) (ADR) : Not regulated

### 14.4. Packing group

Packing group (ADR) : Not regulated

### 14.5. Environmental hazards

Dangerous for the environment	: No
Other information	: No supplementary information available

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### 14.6. Special precautions for user

#### Overland transport

Not regulated

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains a substance on the REACH candidate list in concentration  $\geq 0.1\%$  or with a lower specific limit: Disodium tetraborate, anhydrous (EC 215-540-4, CAS 1303-96-4)

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

VOC content : 0 %

#### 15.1.2. National regulations

##### Netherlands

SZW-lijst van kankerverwekkende stoffen : None of the components are listed

SZW-lijst van mutagene stoffen : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting : None of the components are listed

giftige stoffen – Borstvoeding

NIET-limitatieve lijst van voor de voortplanting : Disodium tetraborate decahydrate, borax decahydrate is listed

giftige stoffen – Vruchtbaarheid

NIET-limitatieve lijst van voor de voortplanting : Disodium tetraborate decahydrate, borax decahydrate is listed

giftige stoffen – Ontwikkeling

### 15.2. Chemical safety assessment

No additional information available

## SECTION 16: Other information

### Indication of changes

Section	Changed item	Change	Comments
2.1			
2.2			
3.2			

### Full text of H- and EUH-statements

Acute Tox. 2 (Dermal)	Acute toxicity (dermal), Category 2
Acute Tox. 2 (Inhalation)	Acute toxicity (inhal.), Category 2
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1



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Full text of H- and EUH-statements	
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Ox. Liq. 2	Oxidising Liquids, Category 2
Repr. 1B	Reproductive toxicity, Category 1B
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Corr. 1C	Skin corrosion/irritation, Category 1, Sub-Category 1C
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
Skin Sens. 1A	Skin sensitisation, category 1A
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
H272	May intensify fire; oxidiser.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H310	Fatal in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H360FD	May damage fertility. May damage the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
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.
H412	Harmful to aquatic life with long lasting effects.

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.