

## Safety Data Sheet

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

### MANITOU ADDITIF POUR FREINS IMMERGES

### 332941MN

Version 1.0

Revision date 19/10/2017

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

##### 1.1. Product identifier

Product form : Mixture  
Trade name : MANITOU ADDITIF POUR FREINS IMMERGES

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

###### 1.2.1. Relevant identified uses

Main use category : Professional use, Consumer use  
Use of the substance/mixture : Additive

###### 1.2.2. Uses advised against

No additional information available

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

MANITOU  
430, rue de l'Aubinière  
44158 ANCENIS Cedex - France  
T +33 (0)2 40 09 10 11  
[contact\\_FDS\\_MSDS@manitou-group.com](mailto:contact_FDS_MSDS@manitou-group.com)

##### 1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Comment
United Kingdom	National Poisons Information Service (Cardiff Centre) Gwenwyn Ward, Llandough Hospital	Penarth CF64 2XX Cardiff	0344 892 0111	

#### SECTION 2: Hazards identification

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

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

Skin Sens. 1 H317  
Aquatic Acute 1 H400  
Aquatic Chronic 1 H410

Full text of hazard classes and H-statements : see section 16

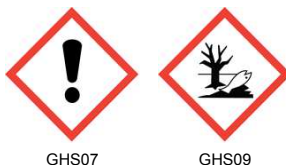
###### Adverse physicochemical, human health and environmental effects

No additional information available

##### 2.2. Label elements

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

Hazard pictograms (CLP) :



Signal word (CLP) :

Warning

Hazardous ingredients :

Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched); Oleic amine; Phenol, heptyl derivatives; Reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and phenol, heptyl derivatives

Hazard statements (CLP) :

H317 - May cause an allergic skin reaction.  
H410 - Very toxic to aquatic life with long lasting effects.

Precautionary statements (CLP) :

P102 - Keep out of reach of children.  
P272 - Contaminated work clothing should not be allowed out of the workplace.  
P273 - Avoid release to the environment.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P321 - Specific treatment (see supplemental first aid instruction on this label)  
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.

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P362+P364 - Take off contaminated clothing and wash it before reuse.

P391 - Collect spillage.

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. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched)	(EC-No.) 931-384-6 (REACH-no) 01-2119493620-38	10 - 20	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 2, H411
Oleic amine	(CAS-No.) 112-90-3 (EC-No.) 204-015-5	2.5 - 10	Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335 STOT RE 2, H373 Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10) Acute Tox. 4 (Oral), H302 Asp. Tox. 1, H304
Reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and phenol, heptyl derivatives	(EC-No.) 939-460-0 (REACH-no) 01-2119971727-23	0.1 - 2.5	Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 3, H412
Phenol, heptyl derivatives substance listed as REACH Candidate (4-heptylphenol, branched and linear [substances with a linear and/or branched alkyl chain with a carbon number of 7 covalently bound predominantly in position 4 to phenol, covering also UVCB- and well-defined substances which include any of the individual isomers or a combination thereof])	(CAS-No.) 72624-02-3 (EC-No.) 276-743-1 (REACH-no) 01-2119972228-30	< 1	Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

#### Specific concentration limits:

**Name**  
Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched)

**Product identifier**  
(EC-No.) 931-384-6  
(REACH-no) 01-2119493620-38

**Specific concentration limits**  
( 50 =<C < 100) Eye Dam. 1, H318

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.
First-aid measures after inhalation	: In the event of faintness in consequence of exposure, immediately transport the victim to the fresh air. Obtain medical attention if breathing difficulty persists.
First-aid measures after skin contact	: Wash contaminated clothing before reuse. Wash with plenty of water/.... Seek medical attention if ill effect or irritation develops.
First-aid measures after eye contact	: Contact ophthalmologist immediately. Remove contact lenses, if present and easy to do. Continue rinsing. In case of eye contact, immediately rinse with clean water for 10-15 minutes.
First-aid measures after ingestion	: Do not induce vomiting. If swallowed, rinse mouth with water (only if the person is conscious). Immediately call a POISON CENTER/doctor. Never give anything by mouth to an unconscious person.

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

Symptoms/effects after inhalation	: Symptoms may include dizziness, headache, nausea and loss of coordination.
Symptoms/effects after skin contact	: Prolonged or repeated contact with the skin may cause dermatitis. Skin rash/inflammation. Redness. Itching.
Symptoms/effects after eye contact	: May cause slight irritation. Redness. Pain.

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

Treat symptomatically.

### **SECTION 5: Firefighting measures**

#### **5.1. Extinguishing media**

Suitable extinguishing media : Dry powder. Foam. Sand. AFFF foam. Water spray. Carbon dioxide.  
Unsuitable extinguishing media : Do not use water jet.

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

Reactivity in case of fire : On burning: release of (highly) toxic gases/vapours. Carbon oxides (CO, CO<sub>2</sub>).

#### **5.3. Advice for firefighters**

Firefighting instructions : Use water spray or fog for cooling exposed containers. Prevent fire fighting water from entering the environment. Exercise caution when fighting any chemical fire.  
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Self-contained breathing apparatus.

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

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

##### **6.1.1. For non-emergency personnel**

Protective equipment : Concerning personal protective equipment to use, see section 8. Wear suitable protective clothing and gloves.  
Emergency procedures : Evacuate unnecessary personnel. Soak up with inert absorbent material (for example sand, sawdust, a universal binder, silica gel). Provide adequate ventilation.

##### **6.1.2. For emergency responders**

Protective equipment : Wear suitable protective clothing and gloves. Avoid breathing Aerosols, Vapours. Equip cleanup crew with proper protection.  
Emergency procedures : Ventilate area. Clean up any spills as soon as possible, using an absorbent material to collect it. Stop leak if safe to do so.

#### **6.2. Environmental precautions**

Prevent entry to sewers and public waters. Avoid release to the environment. Notify authorities if liquid enters sewers or public waters.

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

Methods for cleaning up : Clean up any spills as soon as possible, using an absorbent material to collect it. Collect all waste in suitable and labelled containers and dispose according to local legislation.

#### **6.4. Reference to other sections**

Concerning personal protective equipment to use, see section 8. For disposal of residues refer to section 13 : Disposal considerations" .

### **SECTION 7: Handling and storage**

#### **7.1. Precautions for safe handling**

Additional hazards when processed : Provide proper grounding.  
Precautions for safe handling : Provide good ventilation in process area to prevent formation of vapour. Keep away from sources of ignition - No smoking. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke in areas where product is used.  
Hygiene measures : Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Avoid contact with skin, eyes and clothing.

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

Technical measures : Comply with applicable regulations.  
Storage conditions : Keep away from sources of ignition - No smoking. Store in original container. Store in a dry, well ventilated place away from sources of heat, ignition and direct sunlight. Keep container tightly closed. Keep container closed when not in use.  
Heat and ignition sources : No flames, no sparks. Eliminate all sources of ignition.  
Information on mixed storage : Oxidation agents.  
Storage area : Store away from heat. Floors should be impervious, resistant to liquids and easy to clean.  
Special rules on packaging : Keep only in original container.

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

No additional information available

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

#### **8.1. Control parameters**

No additional information available

#### **8.2. Exposure controls**

Personal protective equipment : Avoid all unnecessary exposure.

Materials for protective clothing:

Separate working clothes from town clothes. Launder separately

Hand protection:

Wear suitable gloves resistant to chemical penetration. Chemical resistant gloves (according to European standard NF EN 374 or equivalent). Time of penetration is to be checked with the glove producer

Eye protection:

Eye protection, including both chemical splash goggles and face shield, must be worn when possibility exists for eye contact due to spraying liquid or airborne particles

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Avoid the formation of mists in the atmosphere. Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. respirator with combination filter for vapour/particles

Other information : Provide local exhaust or general room ventilation to minimize mist and/or vapour concentrations.

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

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

Physical state	: Liquid
Colour	: No data available
Odour	: No data available
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: > 200 °C
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: No data available
Log Pow	: No data available
Viscosity, kinematic	: 44.2 mm <sup>2</sup> /s (40°C)
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

#### **9.2. Other information**

No additional information available

### **SECTION 10: Stability and reactivity**

#### **10.1. Reactivity**

No additional information available

#### **10.2. Chemical stability**

Stable at ambient temperature and under normal conditions of use.

#### **10.3. Possibility of hazardous reactions**

No additional information available

#### **10.4. Conditions to avoid**

All heat sources, including direct sunlight. Sparks. Open flame.

#### **10.5. Incompatible materials**

Strong oxidizers. Strong acids. Strong bases.

#### **10.6. Hazardous decomposition products**

No additional information available

### **SECTION 11: Toxicological information**

#### **11.1. Information on toxicological effects**

Acute toxicity : Not classified

#### **Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched)**

LD50 oral rat : 2000 mg/kg (OECD 401 method)  
Skin corrosion/irritation : Not classified  
Serious eye damage/irritation : Not classified  
Respiratory or skin sensitisation : May cause an allergic skin reaction.  
Germ cell mutagenicity : Not classified  
Carcinogenicity - Description : Not classified  
Reproductive toxicity : Not classified  
STOT-single exposure : Not classified  
STOT-repeated exposure : Not classified  
Aspiration hazard : Not classified

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Viscosity, kinematic : 44.2 mm<sup>2</sup>/s (40°C)

### **SECTION 12: Ecological information**

#### **12.1. Toxicity**

#### **Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched)**

LC50 fish 1 : 24 mg/l (Oncorhynchus mykiss, 96h) (OECD 203 method)  
LC50 fish 2 : 8.5 mg/l (Pimephales promelas, 96h) (OECD 203 method)  
EC50 Daphnia 1 : 91.4 mg/l (Daphnia magna, 48h) (OECD 202 method)  
EC50 72h algae (1) : 6.4 mg/l (Pseudokirchnerella subcapitata, 96h) (OECD 201 method)  
NOEC chronic crustacea : 0.12 mg/l (Daphnia magna, 21d) (OECD 211 method)  
NOEC chronic algae : 1.7 mg/l (Pseudokirchnerella subcapitata, 96h) (OECD 201 method)

#### **Reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and phenol, heptyl derivatives**

LC50 fish 1 : 40 mg/l

#### **12.2. Persistence and degradability**

#### **Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched)**

Biodegradation : 3.6 % Sturm (28 d) [ASTM D-5864-95]

#### **Oleic amine (112-90-3)**

Biodegradation : 66 % Sturm (28d)

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**Phenol, heptyl derivatives (72624-02-3)**

Biodegradation 25.4 % Sturm (28d)

**Reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and phenol, heptyl derivatives**

Biodegradation 17.4 % (28d) [Sturm]

**12.3. Bioaccumulative potential**

**Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched)**

Log Pow < 0.3 (40°C) (OECD 117 method)

**Oleic amine (112-90-3)**

Bioconcentration factor (BCF REACH) 2.7 (0,1 d)

Log Kow 7.5

**Phenol, heptyl derivatives (72624-02-3)**

Bioconcentration factor (BCF REACH) 2.7 (0,1 d)

**Reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and phenol, heptyl derivatives**

Log Kow 9.4 (0.1d) [water/octanol]

**12.4. Mobility in soil**

No additional information available

**12.5. Results of PBT and vPvB assessment**

**Component**

Phenol, heptyl derivatives (72624-02-3) 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

**12.6. Other adverse effects**

Additional information : Do not discharge the product into the environment. Do not flush into surface water or sewer system

### SECTION 13: Disposal considerations

**13.1. Waste treatment methods**

Product/Packaging disposal recommendations : Do not discharge into drains or the environment. Dispose in a safe manner in accordance with local/national regulations.

### SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number</b>				
3082	3082	3082	3082	3082
<b>14.2. UN proper shipping name</b>				
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	Environmentally hazardous substance, liquid, n.o.s.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
<b>Transport document description</b>				
UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched) ; Oleic amine ; Phenol, heptyl derivatives ; Reaction products of bis(4-methylpentan-2-yl)dithiophosphoric acid with phosphorus oxide, propylene oxide and amines, C12-14-alkyl (branched) ; Oleic amine ; Reaction products of 1,3,4-thiadiazolidine-2,5-	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., 9, III, MARINE POLLUTANT	UN 3082 Environmentally hazardous substance, liquid, n.o.s., 9, III	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., 9, III	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., 9, III

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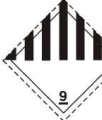
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ADR	IMDG	IATA	ADN	RID
dithione, formaldehyde and phenol, heptyl derivatives ; Phenol, heptyl derivatives), 9, III, (E)				
<b>14.3. Transport hazard class(es)</b>				
9	9	9	9	9
				
<b>14.4. Packing group</b>				
III	III	III	III	III
<b>14.5. Environmental hazards</b>				
Dangerous for the environment : Yes	Dangerous for the environment : Yes Marine pollutant : Yes	Dangerous for the environment : Yes	Dangerous for the environment : Yes	Dangerous for the environment : Yes
No supplementary information available				

#### 14.6. Special precautions for user

##### - Overland transport

Classification code (ADR) : M6  
 Special provisions (ADR) : 274, 335, 601, 375  
 Limited quantities (ADR) : 5I  
 Excepted quantities (ADR) : E1  
 Packing instructions (ADR) : P001, IBC03, LP01, R001  
 Mixed packing provisions (ADR) : MP19  
 Portable tank and bulk container instructions (ADR) : T4  
 Portable tank and bulk container special provisions (ADR) : TP1, TP29  
 Tank code (ADR) : LGBV  
 Vehicle for tank carriage : AT  
 Transport category (ADR) : 3  
 Special provisions for carriage - Packages (ADR) : V12  
 Special provisions for carriage - Loading, unloading and handling (ADR) : CV13  
 Hazard identification number (Kemler No.) : 90  
 Orange plates :



Tunnel restriction code (ADR) : E

##### - Transport by sea

Special provisions (IMDG) : 274, 335, 969  
 Limited quantities (IMDG) : 5L  
 Excepted quantities (IMDG) : E1  
 Packing instructions (IMDG) : P001, LP01  
 Special packing provisions (IMDG) : PP1  
 IBC packing instructions (IMDG) : IBC03  
 Tank instructions (IMDG) : T4  
 Tank special provisions (IMDG) : TP2, TP29  
 EmS-No. (Fire) : F-A  
 EmS-No. (Spillage) : S-F

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Stowage category (IMDG) : A

#### - Air transport

PCA Excepted quantities (IATA) : E1  
PCA Limited quantities (IATA) : Y964  
PCA limited quantity max net quantity (IATA) : 30kgG  
PCA packing instructions (IATA) : 964  
PCA max net quantity (IATA) : 450L  
CAO packing instructions (IATA) : 964  
CAO max net quantity (IATA) : 450L  
Special provisions (IATA) : A97, A158, A197  
ERG code (IATA) : 9L

#### - Inland waterway transport

Classification code (ADN) : M6  
Special provisions (ADN) : 274, 335, 375, 601  
Limited quantities (ADN) : 5 L  
Excepted quantities (ADN) : E1  
Carriage permitted (ADN) : T  
Equipment required (ADN) : PP  
Number of blue cones/lights (ADN) : 0

#### - Rail transport

Classification code (RID) : M6  
Special provisions (RID) : 274, 335, 375, 601  
Limited quantities (RID) : 5L  
Excepted quantities (RID) : E1  
Packing instructions (RID) : P001, IBC03, LP01, R001  
Special packing provisions (RID) : PP1  
Mixed packing provisions (RID) : MP19  
Portable tank and bulk container instructions (RID) : T4  
Portable tank and bulk container special provisions (RID) : TP1, TP29  
Tank codes for RID tanks (RID) : LGBV  
Transport category (RID) : 3  
Special provisions for carriage – Packages (RID) : W12  
Special provisions for carriage - Loading, unloading and handling (RID) : CW13, CW31  
Colis express (express parcels) (RID) : CE8  
Hazard identification number (RID) : 90

#### 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: 4-heptylphenol, branched and linear [substances with a linear and/or branched alkyl chain with a carbon number of 7 covalently bound predominantly in position 4 to phenol, covering also UVCB- and well-defined substances which include any of the individual isomers or a combination thereof] (EC 276-743-1, CAS 72624-02-3)

Contains no REACH Annex XIV substances

##### 15.1.2. National regulations

No additional information available



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#### 15.2. Chemical safety assessment

No additional information available

#### SECTION 16: Other information

Training advice : Not to be used for any purpose other than the one the product was designed for.

Full text of H- and EUH-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4	
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1	
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1	
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2	
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3	
Asp. Tox. 1	Aspiration hazard, Category 1	
Eye Dam. 1	Serious eye damage/eye irritation, Category 1	
Skin Corr. 1B	Skin corrosion/irritation, Category 1B	
Skin Irrit. 2	Skin corrosion/irritation, Category 2	
Skin Sens. 1	Skin sensitisation, Category 1	
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2	
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation	
H302	Harmful if swallowed.	
H304	May be fatal if swallowed and enters airways.	
H314	Causes severe skin burns and eye damage.	
H315	Causes skin irritation.	
H317	May cause an allergic skin reaction.	
H318	Causes serious eye damage	
H335	May cause respiratory irritation.	
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.	
Skin Sens. 1	H317	Calculation method
Aquatic Acute 1	H400	Calculation method
Aquatic Chronic 1	H410	Calculation method

*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*