

**SECTION 1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING** \*

**1.1. Product identifier**

Product name : STAR BRITE TOILET TREATMENT PINE  
Product code : 717-PIN, 71718; 71734

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

Application : SU21 Consumer product. Boat maintenance.

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

Supplier : Star Brite Europe Inc.  
Kryptonweg 7  
NL-3812 RZ Amersfoort, The Netherlands  
Telephone : +31 970 10255575  
E-mail : europe@starbrite.com  
Website : www.starbrite.com

**1.4. Emergency telephone number**

EMERGENCY TELEPHONE NUMBER, for DOCTORS/FIRE BRIGADE/POLICE only:  
NL - Telephone : 703-527-3887 (24/7)

**SECTION 2 HAZARDS IDENTIFICATION**

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

CLP classification : Skin irritation, category 2. Serious eye damage, category 1. Hazardous to the aquatic environment (1272/2008/EC) — Acute category 1. Hazardous to the aquatic environment — Chronic category 2.  
Human health hazards : Causes skin irritation. Causes serious eye damage.  
Physical/chemical hazards : Not classified as dangerous according to statutory EC-Directives.  
Environmental hazards : Very toxic to aquatic organisms. Toxic to aquatic life with long lasting effects.

**2.2. Label elements**

Label elements (1272/2008/EC):

Hazard pictograms :



Signal word : Danger

H- and P-phrases	: H315 Causes skin irritation. : H318 Causes serious eye damage. : H400 Very toxic to aquatic life. : H411 Toxic to aquatic life with long lasting effects. : P101 If medical advice is needed, have product container or label at hand. : P102 Keep out of reach of children. : P280 hands eyes : P305+P351 +P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. : P310 Immediately call a POISON CENTER/doctor. : P273 Avoid release to the environment.
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P391 Collect spillage.  
P501 Dispose of contents/container to an official chemical waste depot.

Labelling of packagings where the contents do not exceed 125 ml and it is technically impossible to list all phrases:  
Hazard pictograms :



Signal word : Danger

H- and P-phrases :

H318	Causes serious eye damage.
P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P280 eyes only	Wear eye protection.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor.

Additional labelling (for all packaging sizes)  
: Contains: Quaternary ammonium compounds, benzyl-C12-18-alkyldimethyl, chlorides .

**2.3. Other hazards**

Other information : Does not contain PBT or vPvB substances.

**SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS**

**3.2. Mixtures**

Product description : Mixture.

Information on hazardous substances:

Substance name	Concentration (w/w) (%)	CAS nr.	EC number	Remark	REACH nr.
Quaternary ammonium compounds, benzyl-C12-18-alkyldimethyl, chlorides	5 - < 10	68391-01-5	269-919-4		
Propan-2-ol	1 - < 5	67-63-0	200-661-7		

Substance name	Hazard Class	H-phrases	Pictograms	
Quaternary ammonium compounds, benzyl-C12-18-alkyldimethyl, chlorides	Acute Tox. 4; Skin Corr. 1B; Eye Dam. 1; Aquatic Acute 1; Aquatic Chronic 1	H302; H314; H318; H400; H410	GHS05; GHS07; GHS09	M (acute) = 10 M (chronic) = 1
Propan-2-ol	Flam. Liq. 2; Eye Irrit. 2; STOT SE 3	H225; H319; H336	GHS02; GHS07	

Occupational exposure limit(s), if relevant, are listed in section 8.

Reference is made to chapter 16 for full text of each relevant H phrase.

**SECTION 4 FIRST-AID MEASURES**

**4.1. Description of first aid measures**

First aid measures

Inhalation : Move victim into fresh air. Consult a doctor if victim feels unwell.  
Skin contact : Take off contaminated clothing. Wash off skin with plenty of water and soap before product dries up. Consult a doctor if irritation persists.

- Eye contact : Wash out with (lukewarm) water for at least 15 minutes. Remove contact lenses. Consult a doctor immediately.
- Ingestion : Do not induce vomiting. Do rinse the mouth. Give one glass of water. Never give anything by mouth to an unconscious person. Consult a doctor if victim feels unwell.

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

##### Effects and symptoms

- Inhalation : Irritant. May cause headache, dizziness and a feeling of sickness.
- Skin contact : Irritant. May cause dry skin and redness.
- Eye contact : Strongly irritant. Irreversible effects on the eye/serious damage to eyes. May cause redness and severe pain.
- Ingestion : Irritant. May cause a feeling of sickness, vomiting and diarrhoea.

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

- Note to physicians : None known.

### SECTION 5 FIRE-FIGHTING MEASURES

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#### 5.1. Extinguishing media

##### Extinguishing media

- Suitable : Carbondioxide (CO<sub>2</sub>). Foam. Dry chemical. Water fog.
- Not suitable : Use of heavy stream of water may spread fire.

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

- Special exposure hazards : None known.
- Hazardous thermal decomposition products : Carbon monoxide may be evolved if incomplete combustion occurs.

#### 5.3. Advice for firefighters

- Special protective equipment for fire-fighters : Use adequate respiratory equipment in case of insufficient ventilation.

### SECTION 6 ACCIDENTAL RELEASE MEASURES

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

- Personal precautions : Danger of slipping. Clean up spills immediately. Wear shoes with non-slip soles. Avoid contact with spilled or released material.

#### 6.2. Environmental precautions

- Environmental precautions : Avoid release of product into sewers, surface water and/or ground water. In case of large spills: contain with dike. Waste product should not be allowed to contaminate soil or water.
- Other information : Notify authorities if any exposure to the general public or the environment occurs or is likely to occur.

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

- Methods for cleaning up : Collect spilled material in containers. Absorb residues in sand or other inert material. Dispose at an authorised waste collection point. Wash away remainder with plenty of water and soap.

#### 6.4. Reference to other sections

- Reference to other sections : See also section 8.

### SECTION 7 HANDLING AND STORAGE

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**7.1. Precautions for safe handling**

Handling : Handle in accordance with good occupational hygiene and safety practices in well-ventilated areas.  
Do not breathe vapour. Avoid contact with skin and eyes. Avoid splashing. Wear protective clothing.

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

Storage : Keep frost-free, in a cool, dry and well-ventilated place. Keep away from oxidizing agents.  
Recommended packaging : Keep only in the original container.  
Non recommended packaging : Steel (except stainless steel).

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

Use : Use only as directed.

<b>SECTION 8</b>	<b>EXPOSURE CONTROLS/PERSONAL PROTECTION</b>	*
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**8.1. Control parameters**

Occupational exposure limits : Occupational exposure limits have not been established for this product. Derived no-effect levels (DNEL) have not been established for this product. Predicted no-effect concentrations (PNEC) have not been established for this product.

Workplace exposure limits (mg/m<sup>3</sup>):

Chemical name	Country	TWA 8 hour (mg/m <sup>3</sup> )	STEL 15 min (mg/m <sup>3</sup> )	Comments	Source
Propan-2-ol	GB	999	1250	-	

Biological limit values (BMGV):

Substance	Country	Determinant	BMG-value	Specimen/Sampling Time/Remarks
			None known.	

Abbreviations BMG-list : B = Blood. U = Urine. b = At the end of the period of exposure. d = pre-shift.  
Source : EH40/2005 (Fourth edition, 2020).

Derived no-effect level (DNEL) for workers:

Chemical name	Route of exposure	DNEL, short-term		DNEL, long-term	
		Local effect	Systemic effect	Local effect	Systemic effect
Propan-2-ol	Dermal Inhalation				888 mg/kg bw/day 500 mg/m <sup>3</sup>

Derived no-effect level (DNEL) for consumers:

Chemical name	Route of exposure	DNEL, short-term		DNEL, long-term	
		Local effect	Systemic effect	Local effect	Systemic effect
Propan-2-ol	Dermal Inhalation Oral				319 mg/kg bw/day 89 mg/m <sup>3</sup> 26 mg/kg bw/day

Predicted no-effect concentration (PNEC):

Chemical name	Route of exposure	Fresh water	Marine water	
Propan-2-ol	Water	140,9 mg/l	140,9 mg/l	
	Sediment	552 mg/kg	552 mg/kg	
	Intermittent water			140,9 mg/l
	STP			2251 mg/l
	Soil			28 mg/kg
	Oral			160 mg/kg food

## 8.2. Exposure controls

Engineering measures : Use only in well-ventilated areas. Comply with standard precautionary measures for working with chemicals.

Hygienic measures : When using do not eat, drink or smoke.

Personal protective equipment:

The efficiency of personal protective equipment depends among other things on temperature and degree of ventilation. Always get professional advice for the particular local situation.



- Body protection : Use of specific protective industrial clothing is not required for momentary use. Wear suitable protective clothing, overalls or suit, and similar boots in accordance with EN 365/367 resp. 345 in case of frequent or prolonged use and in case of large scale exposure. Suitable material: nitril. Indication of permeation breakthrough time: 6 hours.
- Respiratory protection : Take care of sufficient ventilation. Wear suitable respiratory protection in case of large scale exposure. Suitable: gas filter type A (brown), class I or higher on e.g. a facemask in accordance with EN 140.
- Hand protection : Wear appropriate safety gloves in accordance with EN 374. Suitable material: nitril. ± 0,5 mm. Indication of permeation breakthrough time: 6 hours.
- Eye protection : Wear appropriate safety glasses with side shields, in accordance with EN 166.

<b>SECTION 9</b>	<b>PHYSICAL AND CHEMICAL PROPERTIES</b>	*
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### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid.	
Colour	: Green.	
Odour	: Perfumed.	
Odour threshold	: Not known.	
pH	: 7	
Solubility in water	: Soluble.	
Partition coefficient (n-octanol/water)	: Not applicable.	Not measured. Not relevant for mixtures.
Flash point	: > 100 °C	
Flammability (solid, gas)	: Not applicable.	Liquid. See flashpoint.
Auto ignition temperature	: > 258 °C	
Boiling point/boiling range	: 100 °C	
Melting point/melting range	: 0 °C	
Explosive properties	: Not an explosive.	
Explosion limits (% in air)	: Not known.	Lower explosion limit in air (%): 2 ( Propan-2-ol ) Upper explosion limit in air (%): 12 ( Propan-2-ol )
Oxidising properties	: Not applicable.	Does not contain oxidizing substances.
Decomposition temperature	: Not applicable.	
Viscosity (20°C)	: Not known.	
Viscosity (40°C)	: Not relevant.	The product contains < 10% substances having an aspiration hazard.
Vapour pressure (20°C)	: Not known.	
Relative vapour density	: > 1	(air = 1)
Relative density (20°C)	: 0,99 g/ml	
Particle characteristics	: Not applicable.	Liquid.

### 9.2. Other information

Other information : Not relevant.

**SECTION 10 STABILITY AND REACTIVITY**

**10.1. Reactivity**

Reactivity : See sub-sections below.

**10.2. Chemical stability**

Stability : Stable under normal conditions.

**10.3. Possibility of hazardous reactions**

Reactivity : No other hazardous reactions known.

**10.4. Conditions to avoid**

Conditions to avoid : See section 7.

**10.5. Incompatible materials**

Materials to avoid : Keep away from oxidizing agents.

**10.6. Hazardous decomposition products**

Hazardous decomposition products : Not known.

**SECTION 11 TOXICOLOGICAL INFORMATION**

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

Inhalation

- Acute toxicity : Calculated LC50: 10 mg/l. Ingredients of unknown toxicity: 7 %. ATE: > 5 mg/l. Low toxicity. Not classified - based on available data, the classification criteria are not met. May cause headache, dizziness and a feeling of sickness.
- Corrosion/irritation : Not classified - based on available data, the classification criteria are not met.
- Sensitisation : Does not contain substances classified as respiratory sensitiser. Not classified - based on available data, the classification criteria are not met.
- Carcinogenicity : Does not contain carcinogenic substances. Not classified - based on available data, the classification criteria are not met.
- Mutagenicity : Does not contain mutagenic substances. Not classified - based on available data, the classification criteria are not met.

Skin contact

- Acute toxicity : Calculated LD50: > 5000 mg/kg.bw. Ingredients of unknown toxicity: < 1 %. ATE: > 5000 mg/kg.bw. Low toxicity. Not classified - based on available data, the classification criteria are not met.
- Corrosion/irritation : Irritant. May cause redness. Prolonged contact may dry out and defat the skin. Product is not classified as corrosive based on results of an in vitro test.
- Sensitisation : Does not contain skin sensitisers. Not classified - based on available data, the classification criteria are not met.
- Mutagenicity : Does not contain mutagenic substances. Not classified - based on available data, the classification criteria are not met.

Eye contact

- Corrosion/irritation : Risk of serious damage to eyes.

Ingestion

- Acute toxicity : Calculated LD50: > 5000 mg/kg.bw. Ingredients of unknown toxicity: < 1 %. ATE: > 2000 mg/kg.bw. Low toxicity. Not classified - based on available data, the classification criteria are not met.
- Aspiration : Not expected to be an aspiration hazard. Contains a substance/substances with an aspiration hazard. Not classified - based on available data, the classification criteria are not met.

- Corrosion/irritation : May cause a feeling of sickness, vomiting and diarrhoea.  
 Carcinogenicity : Does not contain carcinogenic substances. Not classified - based on available data, the classification criteria are not met.  
 Mutagenicity : Does not contain mutagenic substances. Not classified - based on available data, the classification criteria are not met.  
 Reprotoxicity : Development: Not expected to be reprotoxic. Development: Not classified - Based on available data, the classification criteria are not met. Fertility: not expected to be reprotoxic. Fertility: Not classified - based on available data, the classification criteria are not met.

Toxicological information:

Chemical name	Property		Method	Test animal
Quaternary ammonium compounds, benzyl-C12-18-alkyldimethyl, chlorides	Skin sensitisation - estimate	Not sensitizing	Read across	Guinea pig
	Genotoxicity - estimate	Not genotoxic	Read across	
	Mutagenicity - estimate	Negative	Read across	Salmonella typhimurium
	Skin irritation - estimate	Corrosive.	Read across	Rabbit
	Eye irritation - estimate	Corrosive.	Read across	Rabbit
	LD50 (dermal) - estimate	3340 mg/kg bw	Read across	Rabbit
	LD50 (oral) - estimate	344 mg/kg bw	Read across	Rat

**11.2. Information on other hazards**

- Endocrine disrupting properties : Not applicable.  
 Other information : Not applicable.

**SECTION 12 ECOLOGICAL INFORMATION**

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**12.1. Toxicity**

No ecotoxicological research has been carried out on this product.

- Ecotoxicity : Very toxic to aquatic organisms. Calculated LC50 (fish): 3 mg/l. Calculated EC50 (waterflea): < 1 mg/l. Contains 0 % of components with unknown hazards to the aquatic environment.

**12.2. Persistence and degradability**

Persistence – degradability : May cause long-term adverse effects in the aquatic environment. The surfactants contained in this preparation comply with the biodegradability criteria as laid down in Regulation (EC) 648/2004 on detergents.

**12.3. Bioaccumulative potential**

Bioaccumulative potential : No specific information known.

**12.4. Mobility in soil**

Mobility : If product enters soil, it will be highly mobile and may contaminate groundwater.

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

PBT/vPvB assessment : Does not contain PBT or vPvB substances.

**12.6. Endocrine disrupting properties**

Endocrine disrupting properties : Not applicable.

**12.7. Other adverse effects**

Other adverse effects : Not applicable.

Ecological information:

Chemical name	Property		Method	Test animal
Quaternary ammonium compounds, benzyl-C12-18-alkyldimethyl, chlorides	EC50 (waterflea)	0,016 mg/l	OECD 202	Daphnia magna
	IC50 (algae)	0,049 mg/l		Pseudokirchnerella subcapitata
	LC50 (fish)	0,28 mg/l		Pimephales promelas
	NOEC (fish)	0,032 mg/l.d		Pimephales promelas
	NOEC (waterflea) - chronic	0,0042 mg/l.d		Daphnia magna
	Primary aerobic biodegradation (%)	> 90 %	OECD 303 A	
	Ultimate aerobic biodegradation (%)	95,5 %	OECD 301 B	
	BCF	79		

**SECTION 13 DISPOSAL CONSIDERATIONS**

**13.1. Waste treatment methods**

- Product residues : Do not dispose empty pack with waste produced by households. Containers may be recycled. Treat product residues and non-empty pack as hazardous waste.
- Additional warning : None.
- Waste water discharge : Do not dispose of into the environment, drains, sewers or water courses.
- European waste catalogue : Dispose hazardous waste in accordance with Directive 91/689/EEC under acknowledgement of a waste code according to Commission Decision 2000/532/EC to an official chemical waste depot.
- Local legislation : Disposal should be in accordance with applicable regional, national, and local laws and regulations. Local regulations may be more stringent than regional or national requirements and must be complied with.

**SECTION 14 TRANSPORT INFORMATION**

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**14.1. UN number or ID number**

UN nr. : UN 3082

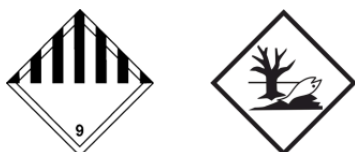
**14.2. UN proper shipping name**

- Transport name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ( Quaternary ammonium compounds, benzyl-C12-18-alkyldimethyl, chlorides )
- Transport name (IMDG, IATA) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. ( Quaternary ammonium compounds, benzyl-C12-18-alkyl dimethyl, chlorides )

**14.3/14.4/14.5. Transport hazard class(es)/Packing group/Environmental hazards**

ADR/RID/ADN (road/railway/inland waterways)

- Class : 9
- Classification code : M6
- Packaging group : III
- Danger label : 9 + the "environmentally hazardous substance" mark.
- Tunnel restriction code : (-)





Other information : Not intended for carriage by tank-vessels on inland waterways. This product is not regulated as a dangerous good when transported in sizes of <= 5 L or <= 5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8 (Special provisions 375).

**IMDG (sea)**

Class : 9  
 Packaging group : III  
 EmS (fire / spill) : F - A / S - F  
 Marine pollutant : Yes  
 Other information : This product is not regulated as a dangerous good when transported in sizes of <= 5 L or <= 5 kg, provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8 (IMDG code 37-14, 2.10.2.7).

**IATA (air)**

Class : 9  
 ERG code : 9L

**14.6. Special precautions for user**

Other information : Country specific variations may apply. It is possible that a "Limited Quantity" exemption applies to the transport of this product.

**14.7. Maritime transport in bulk according to IMO instruments**

Marpol : Not intended to be carried in bulk according to International Maritime Organisation (IMO) instruments. Packaged liquids are not considered bulk.

<b>SECTION 15</b>	<b>REGULATORY INFORMATION</b>	*
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**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Community regulations : Regulation (EU) No 2020/878 (REACH), Regulation (EC) No 1272/2008 (CLP) and other regulations. Directive 2008/98/EC (waste).

**15.2. Chemical safety assessment**

Chemical safety assessment : Not applicable.

<b>SECTION 16</b>	<b>OTHER INFORMATION</b>	*
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**16.1. Other information**

The information in this safety data sheet is compiled in compliance with Regulation (EU) No 2020/878 dated 18 June 2020 and accurate to the best of our knowledge and experience at the date of issue specified. It is the user's obligation to use this product safely and to comply with all applicable laws and regulations concerning the use of the product. This safety data sheet complements the technical information sheets but does not replace them and offers no warranty with regard to product properties.

Users are also forewarned for any hazards involved when the product is used for other purposes than those for which it is designed.

Changed or new information with regard to the previous release is indicated with an asterisk (\*).

List of abbreviations and acronyms that could be (but not necessarily are) used in this safety data sheet:

ADR : European Agreement concerning the International Carriage of Dangerous Goods by Road  
 ATE : Acute Toxicity Estimate  
 CLP : Classification, Labeling & Packaging  
 CMR : Carcinogenic, Mutagenic or toxic for Reproduction  
 EEC : European Economic Community  
 GHS : Globally Harmonized System of Classification and Labelling of Chemicals  
 IATA : International Air Transport Association

IBC code	: International Bulk Chemical Code
IMDG	: International Maritime Dangerous Goods Code
LD50/LC50	: Lethal Dose/Concentration for 50% of a population
MAC	: Maximum Allowable Concentration
MARPOL	: International Convention for the Prevention of Pollution From Ships
NO(A)EL	: No Observed (Adverse) Effect Level
OECD	: Organisation for Economic Co-operation and Development
PBT	: Persistent, Bioaccumulative and Toxic
PC	: Chemical product category
PT	: Product type
REACH	: Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	: Regulations concerning the International Carriage of Dangerous Goods by Rail
STP	: Sewage Treatment Plant
SU	: Sector of Use
TWA/STEL	: Time-Weighted Average/Short Term Exposure Limit
UN	: United Nations
UFI	: Unique formula identifier
VOC	: Volatile Organic Compounds
vPvB	: Very Persistent and Very Bioaccumulative

Key data used to compile the Safety Data Sheet are from, but not limited to, one or more sources of information e.g. toxicological data from material suppliers, CONCAWE, IFRA, CESIO, Regulation EG 1272/2008, etc.

Procedure used to derive the classification according to Regulation (EC) No. 1272/2008:

Skin Irrit. 2	: On basis of test data.
Eye Dam. 1	: Calculation method.
Aquatic Chronic 2	: Calculation method.
Aquatic Acute 1	: Calculation method.

Full text of hazard classes mentioned in section 3:

Flam. Liq. 2	: Flammable liquid, category 2.
Acute Tox. 4	: Acute toxicity, category 4.
Skin Corr. 1A/B/C	: Skin corrosive, category 1A/B/C.
Eye Dam. 1	: Serious eye damage, category 1.
Eye Irrit. 2	: Eye irritation, category 2.
STOT SE 3	: Specific target organ toxicity after single exposure, category 3.
Aquatic Chronic 1	: Hazardous to the aquatic environment — Chronic category 1.
Aquatic Acute 1	: Hazardous to the aquatic environment — Acute category 1.

Full text of H-phrases mentioned in section 3:

H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Advice on any training appropriate for workers: none.

Number format : ", " used as decimal separator.

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End of safety data sheet.