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Safety data sheet according to Regulation (EC) No 1907/2006, Annex II  
Revised on / Version: 05.04.2011 / 0003  
Replaces revision of / Version: 19.01.2011 / 0002  
Valid from: 05.04.2011  
PDF print date: 16.01.2012  
Hako City Clean-S

## Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

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

#### 1.1 Product identifier

### Hako City Clean-S

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

##### Relevant identified uses of the substance or mixture:

Cleaner

##### Uses advised against:

No information available at present.

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

Hako Werk GmbH, Hamburgerstraße 209-239, D-23843 Bad Oldesloe  
Telephone 04531 806309, Fax 04531 806338  
info@hako.com

HILCO Chemie B.V. , Postfach 105, NL-6674 ZJ HERVELD  
Telefon: 0031 488473330, Telefax.: 0031 488473331

E-mail address of the competent person: info@chemical-check.de, k.schnurbusch@chemical-check.de

#### 1.4 Emergency telephone

##### Advisory office in case of poisoning:

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##### Telephone number of the company in case of emergencies:

Tel.: 0031 488473330

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

##### 2.1.1 Classification according to Regulation (EC) 1272/2008 (CLP)

Not determined

##### 2.1.2 Classification according to Directives 67/548/EEC and 1999/45/EC (including amendments).

Xi, Irritant, R41

#### 2.2 Label elements

##### 2.2.1 Labeling according to Regulation (EC) 1272/2008 (CLP)

Not determined

##### 2.2.2 Labeling according to Directives 67/548/EEC and 1999/45/EC (including amendments).

Symbols: Xi

Indications of danger:

Irritant

R-phrases:

41 Risk of serious damage to eyes.

S-phrases:

24/25 Avoid contact with skin and eyes.

26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

35 This material and its container must be disposed of in a safe way.



39 Wear eye/face protection.

Additions:

Contains

(R)-p-mentha-1,8-diene

May produce an allergic reaction.

### 2.3 Other hazards

The mixture does not contain any vPvB substance (vPvB = very persistent, very bioaccumulative) or is not included under XIII of the regulation (EC) 1907/2006.

The mixture does not contain any PBT substance (PBT = persistent, bioaccumulative, toxic) or is not included under XIII of the regulation (EC) 1907/2006.

May produce an allergic reaction.

## REGULATION (EC) No 648/2004

5 % or over but less than 15 %

non-ionic surfactants

less than 5 %

phosphates

perfumes

CITRAL

LIMONENE

(Ethylenedioxy)dimethanol

METHYLCHLOROISOTHIAZOLINONE/ METHYLISOTHIAZOLINONE

FORMALDEHYDE

## SECTION 3: Composition/information on ingredients

### 3.1 Substance

n.a.

### 3.2 Mixture

Propan-2-ol	
Registration number (ECHA)	--
Index	603-117-00-0
EINECS, ELINCS	200-661-7
CAS	CAS 67-63-0
content %	1-<15
Symbol	F/Xi
R-phrases	11-36-67
Classification categories / Indications of danger	Highly flammable, Irritant
Hazard class/Hazard category	<b>Hazard statement</b>
Flam. Liq./2	H225
Eye Irrit./2	H319
STOT SE/3	H336

Ethoxylated isotridecanol	
Registration number (ECHA)	--
Index	---
EINECS, ELINCS	-
CAS	CAS n.v.
content %	5-10
Symbol	Xi
R-phrases	41
Classification categories / Indications of danger	Irritant
Hazard class/Hazard category	<b>Hazard statement</b>
Eye Dam./1	H318

sodium cumenesulfonate	
Registration number (ECHA)	--
Index	---
EINECS, ELINCS	248-983-7

<b>CAS</b>	CAS 28348-53-0
<b>content %</b>	1-10
<b>Symbol</b>	Xi
<b>R-phrases</b>	36
<b>Classification categories / Indications of danger</b>	Irritant
<b>Hazard class/Hazard category</b>	<b>Hazard statement</b>
Eye Irrit./2	H319

<b>Fatty alcohol ethoxylates</b>	
<b>Registration number (ECHA)</b>	--
<b>Index</b>	---
<b>EINECS, ELINCS</b>	-
<b>CAS</b>	CAS n.v.
<b>content %</b>	1-5
<b>Symbol</b>	Xn/Xi
<b>R-phrases</b>	22-41
<b>Classification categories / Indications of danger</b>	Harmful, Irritant
<b>Hazard class/Hazard category</b>	<b>Hazard statement</b>
Acute Tox./4	H302
Eye Dam./1	H318

<b>(R)-p-mentha-1,8-diene</b>	
<b>Registration number (ECHA)</b>	--
<b>Index</b>	601-029-00-7
<b>EINECS, ELINCS</b>	227-813-5
<b>CAS</b>	CAS 5989-27-5
<b>content %</b>	0,1-<0,25
<b>Symbol</b>	Xi/N
<b>R-phrases</b>	10-38-43-50-53
<b>Classification categories / Indications of danger</b>	Dangerous for the environment, Flammable, Irritant, Sensitizing
<b>Hazard class/Hazard category</b>	<b>Hazard statement</b>
Flam. Liq./3	H226
Skin Irrit./2	H315
Skin Sens./1	H317
Aquatic Acute/1	H400
Aquatic Chronic/1	H410

For the text of the R-phrases / H-phrases and classification codes (GHS/CLP), see Section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### Inhalation

Remove person from danger area.

Supply person with fresh air and consult doctor according to symptoms.

#### Skin contact

Wash thoroughly using copious water - remove contaminated clothing immediately. If skin irritation occurs (redness etc.), consult doctor.

#### Eye contact

Remove contact lenses.

Wash thoroughly for several minutes using copious water - call doctor immediately, have Data Sheet available.

Protect uninjured eye.

Follow-up examination by an ophthalmologist

#### Ingestion

Rinse the mouth thoroughly with water.

Do not induce vomiting - give copious water to drink. Consult doctor immediately.

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

If applicable delayed symptoms and effects can be found in section 11 and the absorption route in section 4.1.

With long-term contact:

Drying of the skin.

Dermatitis (skin inflammation)

Sensitive individuals:  
Allergic reaction possible.

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

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

#### **5.1 Extinguishing media**

##### **Suitable extinguishing media**

Water jet spray/foam/CO<sub>2</sub>/dry extinguisher  
Cool container at risk with water.

##### **Unsuitable extinguishing media**

High volume water jet

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

In case of fire the following can develop:

Oxides of carbon  
Oxides of phosphorus  
Oxides of sulphur  
Toxic pyrolysis products.  
Flammable vapour/air mixtures

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

In case of fire and/or explosion do not breathe fumes.  
Protective respirator with independent air supply.  
According to size of fire  
Full protection, if necessary  
Dispose of contaminated extinction water according to official regulations.

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

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

Remove possible causes of ignition - do not smoke.  
Ensure sufficient supply of air.  
Avoid contact with eyes or skin.  
If applicable, caution - risk of slipping

#### **6.2 Environmental precautions**

If leakage occurs, dam up.  
Prevent surface and ground-water infiltration, as well as ground penetration.  
Prevent from entering drainage system.  
If accidental entry into drainage system occurs, inform responsible authorities.

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

Soak up with absorbent material (e.g. universal binding agent, sand, diatomaceous earth, sawdust) and dispose of according to Section 13.  
Flush residue using copious water.

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

For personal protective equipment see Section 8 and for disposal instructions see Section 13.

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

In addition to information given in this section, relevant information can also be found in section 8 and 6.1.

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

##### **7.1.1 General recommendations**

Ensure good ventilation.  
Keep away from sources of ignition - Do not smoke.  
Avoid contact with eyes or skin.  
Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.  
Observe directions on label and instructions for use.  
Use working methods according to operating instructions.

##### **7.1.2 Notes on general hygiene measures at the workplace**

General hygiene measures for the handling of chemicals are applicable.

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Wash hands before breaks and at end of work.  
 Keep away from food, drink and animal feedingstuffs.  
 Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

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

Keep out of access to unauthorised individuals.  
 Store product closed and only in original packing.  
 Not to be stored in gangways or stair wells.  
 Store at room temperature.  
 Protect from frost.

**7.3 Specific end use(s)**

No information available at present.

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

**8.1 Control parameters**

Chemical Name	Propan-2-ol		Content %:1- <15
WEL-TWA: 400 ppm (999 mg/m3)	WEL-STEL: 500 ppm (1250 mg/m3)	---	
BMGV: ---	Other information: ---		

WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period) EH40. AGW = "Arbeitsplatzgrenzwert" (workplace limit value, Germany). | WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period). | BMGV = Biological monitoring guidance value EH40. BGW = "Biologischer Grenzwert" (biological limit value, Germany) | Other information: Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage.  
 \*\* = The exposure limit for this substance is repealed through the TRGS 900 (Germany) of January 2006 with the goal of revision.

Propan-2-ol						
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
Workers / employees	Human - dermal	Long term	DNEL	888	mg/kg	(1 d)
Workers / employees	Human - inhalation	Long term	DNEL	500	mg/m3	
Consumer	Human - dermal	Long term	DNEL	319	mg/kg	(1 d)
Consumer	Human - inhalation	Long term	DNEL	89	mg/m3	
Consumer	Human - oral	Long term	DNEL	26	mg/kg	(1 d)
	Environment - freshwater		PNEC	140,9	mg/l	
	Environment - marine		PNEC	140,9	mg/l	
	Environment - sediment, freshwater		PNEC	552	mg/kg	
	Environment - sediment, marine		PNEC	552	mg/kg	
	Environment - soil		PNEC	28	mg/kg	

**8.2 Exposure controls**

**8.2.1 Appropriate engineering controls**

Ensure good ventilation. This can be achieved by local suction or general air extraction.  
 If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn.  
 Applies only if maximum permissible exposure values are listed here.

**8.2.2 Individual protection measures, such as personal protective equipment**

General hygiene measures for the handling of chemicals are applicable.  
 Wash hands before breaks and at end of work.  
 Keep away from food, drink and animal feedingstuffs.  
 Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

Eye/face protection:  
 Tight fitting protective goggles with side protection (EN 166).  
 If applicable

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Face protection (EN 166)

Skin protection - Hand protection:  
 Chemical resistant protective gloves (EN 374).  
 If applicable  
 Safety gloves made of butyl (EN 374)  
 Protective Neopren gloves (EN 374).  
 Protective nitrile gloves (EN 374)  
 Protective hand cream recommended.

Skin protection - Other:  
 Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments)

Respiratory protection:  
 Normally not necessary.  
 If OES or MEL is exceeded.  
 Gas mask filter A (EN 14387), code colour brown  
 Observe wearing time limitations for respiratory protection equipment.

Thermal hazards:  
 If applicable, these are included in the individual protective measures (eye/face protection, skin protection, respiratory protection).

Additional information on hand protection - No tests have been performed.  
 In the case of mixtures, the selection has been made according to the knowledge available and the information about the contents.  
 Selection of materials derived from glove manufacturer's indications.  
 Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account.  
 Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer.  
 In the case of mixtures, the resistance of glove materials cannot be predicted and must therefore be tested before use.  
 The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

### 8.2.3 Environmental exposure controls

No information available at present.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	Colourless
Colour:	Turbid
Odour:	Characteristic
Odour threshold:	Not determined
pH-value:	9,5
Melting point/freezing point:	Not determined
Initial boiling point and boiling range:	Not determined
Flash point:	~65 °C
Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined
Lower explosive limit:	2,02 Vol-% (20°C, Propan-2-ol)
Upper explosive limit:	12 Vol-% (20°C, Propan-2-ol)
Vapour pressure:	Not determined
Vapour density (air = 1):	Not determined
Density:	1,04 g/ml
Bulk density:	Not determined
Solubility(ies):	Not determined
Water solubility:	Mixable
Partition coefficient (n-octanol/water):	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	Not determined
Explosive properties:	Not determined
Oxidising properties:	No

### 9.2 Other information

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Miscibility: Not determined  
 Fat solubility / solvent: Not determined  
 Conductivity: Not determined  
 Surface tension: Not determined  
 Solvents content: Not determined

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

See also Subsection 10.4 to 10.6.  
 The product has not been tested.

### 10.2 Chemical stability

See also Subsection 10.4 to 10.6.  
 Stable with proper storage and handling.

### 10.3 Possibility of hazardous reactions

See also Subsection 10.4 to 10.6.  
 No decomposition if used as intended.

### 10.4 Conditions to avoid

See also section 7.  
 Heating, open flame, ignition sources

### 10.5 Incompatible materials

See also section 7.  
 Avoid contact with strong oxidizing agents.

### 10.6 Hazardous decomposition products

See also Subsection 10.4 to 10.6.  
 See also section 5.2  
 No decomposition when used as directed.

## SECTION 11: Toxicological information

Hako City Clean-S						
Toxicity/effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:						n.d.a.
Acute toxicity, by dermal route:						n.d.a.
Acute toxicity, by inhalation:						n.d.a.
Skin corrosion/irritation:						n.d.a.
Serious eye damage/irritation:						n.d.a.
Respiratory or skin sensitisation:						n.d.a.
Germ cell mutagenicity:						n.d.a.
Carcinogenicity:						n.d.a.
Reproductive toxicity:						n.d.a.
Specific target organ toxicity - single exposure (STOT-SE):						n.d.a.
Specific target organ toxicity - repeated exposure (STOT-RE):						n.d.a.
Aspiration hazard:						n.d.a.
Respiratory tract irritation:						n.d.a.
Repeated dose toxicity:						n.d.a.
Symptoms:						n.d.a.

Propan-2-ol						
Toxicity/effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	4570	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	12800	mg/kg	Rabbit		



Persistence and degradability:							The surfactant(s) contained in this mixture complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents., Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.
Bioaccumulative potential:							n.d.a.
Mobility in soil:							n.d.a.
Results of PBT and vPvB assessment							n.d.a.
Other adverse effects:							n.d.a.
Other ecotoxicological data:							According to the recipe, contains no AOX.

<b>Propan-2-ol</b>							
Toxicity/effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to fish:	LC50	96h	9640	mg/l	(Pimephales promelas)		
Toxicity to daphnia:	EC50	48h	>100	mg/l	(Daphnia magna)		References
Toxicity to daphnia:	LC50	48h	13.299	mg/l	(Daphnia magna)		References
Toxicity to algae:	EC50	72h	>1000	mg/l	(Scenedesmus subspicatus)		
Persistence and degradability:		21d	95	%		OECD 301 E (Ready Biodegradability - Modified OECD Screening Test)	
Bioaccumulative potential:	Log Pow		0,05			OECD 107 (Partition Coefficient (n-octanol/water) - Shake Flask Method)	
Toxicity to bacteria:	EC10	18h	5175	mg/l	(Pseudomonas putida)	DIN 38412 T.8	
Water solubility:							

<b>sodium cumenesulfonate</b>							
Toxicity/effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to fish:	LC50	96h	>100	mg/l	(Cyprinus caprio)	OECD 203 (Fish, Acute Toxicity Test)	
Toxicity to daphnia:	EC50	48h	>100	mg/l	(Daphnia magna)	OECD 202 (Daphnia sp. Acute Immobilisation Test)	

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Toxicity to algae:	EC50	72h	>100	mg/l	(Desmodesmus subspicatus)	OECD 201 (Alga, Growth Inhibition Test)	
Persistence and degradability:		6d	>60	%		OECD 301 B (Ready Biodegradability - Co2 Evolution Test)	Readily biodegradable

Fatty alcohol ethoxylates							
Toxicity/effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to fish:	LC50	96h	10-100	mg/l	(Leuciscus idus)		
Toxicity to daphnia:	EC50	48h	10-100	mg/l			
Toxicity to algae:	EC50	96h	10-100	mg/l			
Persistence and degradability:			>90	%		OECD 301 E (Ready Biodegradability - Modified OECD Screening Test)	
Persistence and degradability:			>60	%		OECD 301 B (Ready Biodegradability - Co2 Evolution Test)	
Other ecotoxicological data:	COD		2,5	g/g			

(R)-p-mentha-1,8-diene							
Toxicity/effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to fish:	LC50	96h	0,70	mg/l	(Pimephales promelas)		
Toxicity to daphnia:	EC50	48h	0,42	mg/l	(Daphnia magna)		
Persistence and degradability:		28d	92	%		OECD 301 D (Ready Biodegradability - Closed Bottle Test)	

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### For the substance / mixture / residual amounts

EC disposal code no.:

The waste codes are recommendations based on the scheduled use of this product. Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances. (2001/118/EC, 2001/119/EC, 2001/573/EC)

07 06 01 aqueous washing liquids and mother liquors

20 01 29 detergents containing dangerous substances

Recommendation:

Pay attention to local and national official regulations

E.g. suitable incineration plant.

E.g. dispose at suitable refuse site.

#### For contaminated packing material

Pay attention to local and national official regulations

Empty container completely.

Untamminated packaging can be recycled.

Dispose of packaging that cannot be cleaned in the same manner as the substance.

Recommended cleaner:

Water

## SECTION 14: Transport information

### General statements

UN number: n.a.

### Transport by road/by rail (ADR/RID)

UN proper shipping name:  
 Transport hazard class(es): n.a.  
 Packing group: n.a.  
 Classification code: n.a.  
 LQ (ADR 2011): n.a.  
 LQ (ADR 2009): n.a.  
 Environmental hazards: Not applicable  
 Tunnel restriction code:

### Transport by sea (IMDG-code)

UN proper shipping name:  
 Transport hazard class(es): n.a.  
 Packing group: n.a.  
 Marine Pollutant: n.a.  
 Environmental hazards: Not applicable

### Transport by air (IATA)

UN proper shipping name:  
 Transport hazard class(es): n.a.  
 Packing group: n.a.  
 Environmental hazards: Not applicable

### Special precautions for user

Unless specified otherwise, general measures for safe transport must be followed.

### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Non-dangerous material according to Transport Regulations.

## SECTION 15: Regulatory information

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

For classification and labelling see Section 2.

Observe restrictions: Yes

Comply with trade association/occupational health regulations.

Observe youth employment law (German regulation).

Regulation (EC) No 1907/2006, Annex XVII

VOC (1999/13/EC): ~ 8% w/w

### 15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

## SECTION 16: Other information

These details refer to the product as it is delivered.

Revised sections: 3, 8, 11, 12

The following statements are the indicated R-phrases / H-phrases and classification codes (GHS/CLP) for the ingredients (listed in Section 3).

- 11 Highly flammable.
- 36 Irritating to eyes.
- 38 Irritating to skin.
- 41 Risk of serious damage to eyes.
- 10 Flammable.
- 43 May cause sensitization by skin contact.
- 50 Very toxic to aquatic organisms.
- 53 May cause long-term adverse effects in the aquatic environment.
- 67 Vapours may cause drowsiness and dizziness.
- 22 Harmful if swallowed.
- H225 Highly flammable liquid and vapour.
- H226 Flammable liquid and vapour.

H302 Harmful if swallowed.  
 H315 Causes skin irritation.  
 H317 May cause an allergic skin reaction.  
 H318 Causes serious eye damage.  
 H319 Causes serious eye irritation.  
 H336 May cause drowsiness or dizziness.  
 H400 Very toxic to aquatic life.  
 H410 Very toxic to aquatic life with long lasting effects.

Flam. Liq.-Flammable liquid  
 Eye Irrit.-Eye irritation  
 STOT SE-Specific target organ toxicity - single exposure - narcotic effects  
 Eye Dam.-Serious eye damage  
 Acute Tox.-Acute toxicity - oral  
 Skin Irrit.-Skin irritation  
 Skin Sens.-Skin sensitization  
 Aquatic Acute-Hazardous to the aquatic environment - acute  
 Aquatic Chronic-Hazardous to the aquatic environment - chronic

**Any abbreviations and acronyms used in this document:**

AC Article Categories  
 acc., acc. to according, according to  
 ACGIH American Conference of Governmental Industrial Hygienists  
 ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road)  
 AOEL Acceptable Operator Exposure Level  
 AOX Adsorbable organic halogen compounds  
 approx. approximately  
 Art., Art. no. Article number  
 ATE Acute Toxicity Estimate according to Regulation (EC) 1272/2008 (CLP)  
 BAM Bundesanstalt für Materialforschung und -prüfung (Federal Institute for Materials Research and Testing, Germany)  
 BAuA Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health and Safety, Germany)  
 BCF Bioconcentration factor  
 BGV Berufsgenossenschaftliche Vorschrift (= Accident Prevention Regulation)  
 BHT Butylhydroxytoluol (= 2,6-Di-t-butyl-4-methyl-phenol)  
 BMGV Biological monitoring guidance value (EH40, UK)  
 BOD Biochemical oxygen demand  
 BSEF Bromine Science and Environmental Forum  
 bw body weight  
 CAS Chemical Abstracts Service  
 CESIO Comité Européen des Agents de Surface et de leurs Intermédiaires Organiques  
 CIPAC Collaborative International Pesticides Analytical Council  
 CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)  
 CMR carcinogenic, mutagenic, reproductive toxic  
 COD Chemical oxygen demand  
 CTFA Cosmetic, Toiletry, and Fragrance Association  
 DMEL Derived Minimum Effect Level  
 DNEL Derived No Effect Level  
 DOC Dissolved organic carbon  
 DT50 Dwell Time - 50% reduction of start concentration  
 DVS Deutscher Verband für Schweißen und verwandte Verfahren e.V. (= German Association for Welding and Allied Processes)  
 dw dry weight  
 e.g. for example (abbreviation of Latin 'exempli gratia'), for instance  
 EC European Community  
 ECHA European Chemicals Agency  
 EEA European Economic Area  
 EEC European Economic Community  
 EINECS European Inventory of Existing Commercial Chemical Substances  
 ELINCS European List of Notified Chemical Substances  
 EN European Norms  
 EPA United States Environmental Protection Agency (United States of America)

- ERC Environmental Release Categories
- ES Exposure scenario
- etc. et cetera
- EU European Union
- EWC European Waste Catalogue
- Fax. Fax number
- gen. general
- GHS Globally Harmonized System of Classification and Labelling of Chemicals
- GWP Global warming potential
- HET-CAM Hen's Egg Test - Chorionallantoic Membrane
- IARC International Agency for Research on Cancer
- IATA International Air Transport Association
- IBC Intermediate Bulk Container
- IBC (Code) International Bulk Chemical (Code)
- IC Inhibitory concentration
- IMDG-code International Maritime Code for Dangerous Goods
- incl. including, inclusive
- IUCLID International Uniform Chemical Information Database
- LC lethal concentration
- LC50 lethal concentration 50 percent kill
- LCLo lowest published lethal concentration
- LD Lethal Dose of a chemical
- LD50 Lethal Dose, 50% kill
- LDLo Lethal Dose Low
- LMBG Lebensmittel- und Bedarfsgegenständegesetz (= Foodstuffs and Commodities Law)
- LOAEL Lowest Observed Adverse Effect Level
- LOEC Lowest Observed Effect Concentration
- LOEL Lowest Observed Effect Level
- LQ Limited Quantities
- MARPOL International Convention for the Prevention of Marine Pollution from Ships
- n.a. not applicable
- n.av. not available
- n.c. not checked
- n.d.a. no data available
- NIOSH National Institute of Occupational Safety and Health (United States of America)
- NOAEC No Observed Adverse Effective Concentration
- NOAEL No Observed Adverse Effect Level
- NOEC No Observed Effect Concentration
- NOEL No Observed Effect Level
- ODP Ozone Depletion Potential
- OECD Organisation for Economic Co-operation and Development
- org. organic
- PAH polycyclic aromatic hydrocarbon
- PBT persistent, bioaccumulative and toxic
- PC Chemical product category
- PE Polyethylene
- PNEC Predicted No Effect Concentration
- POCP Photochemical ozone creation potential
- ppm parts per million
- PROC Process category
- PTFE Polytetrafluorethylene
- REACH Registration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals)
- RID Règlement concernant le transport International ferroviaire de marchandises Dangereuses (= Regulation concerning the International Carriage of Dangerous Goods by Rail)
- SADT Self-Accelerating Decomposition Temperature
- SAR Structure Activity Relationship
- SU Sector of use
- SVHC Substances of Very High Concern
- Tel. Telephone
- ThOD Theoretical oxygen demand
- TOC Total organic carbon
- TRGS Technische Regeln für Gefahrstoffe (= Technical Regulations for Hazardous Substances)
- VbF Verordnung über brennbare Flüssigkeiten (= Regulation for flammable liquids (Austria))

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Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

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Hako City Clean-S

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VOC Volatile organic compounds

vPvB very persistent and very bioaccumulative

WEL-TWA, WEL-STEL WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period), WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period) (EH40, UK).

WHO World Health Organization

wwt wet weight

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge.

No responsibility.

These statements were made by:

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