according to Regulation (EC) No. 1907/2006



### HHS CLEAN - 500 ML

Version Revision Date: SDS Number: Date of last issue: 20.10.2020 7.3 06.11.2020 506988-00007 Date of first issue: 11.06.2010

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

1.1 Product identifier

Trade name : HHS CLEAN - 500 ML

Product code : 089310610

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

Use of the Sub-: Cleaning agent, Detergent stance/Mixture Professional use product

1.3 Details of the supplier of the safety data sheet

Adolf Wuerth GmbH & Co. KG Company

Reinhold-Würth-Str. 12-17

74653 Künzelsau

Telephone : +49 794015 0

Telefax : +49 794015 10 00

E-mail address of person

responsible for the SDS

: prodsafe@wuerth.com

#### 1.4 Emergency telephone number

+49 (0)6132 - 84463

## **SECTION 2: Hazards identification**

## 2.1 Classification of the substance or mixture

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

Aerosols, Category 1 H222: Extremely flammable aerosol.

H229: Pressurised container: May burst if heated.

Skin irritation, Category 2 H315: Causes skin irritation.

Eye irritation, Category 2 H319: Causes serious eye irritation.

Specific target organ toxicity - single ex-

posure, Category 3

H336: May cause drowsiness or dizziness.

Long-term (chronic) aquatic hazard, Cat-

egory 3

H412: Harmful to aquatic life with long lasting ef-

fects.

#### 2.2 Label elements

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

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Hazard pictograms :





Signal word : Danger

Hazard statements : H222 Extremely flammable aerosol.

H229 Pressurised container: May burst if heated.

H315 Causes skin irritation.

H319 Causes serious eye irritation.H336 May cause drowsiness or dizziness.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements : Prevention:

P210 Keep away from heat, hot surfaces, sparks, open

flames and other ignition sources. No smoking.

P211 Do not spray on an open flame or other ignition source.

P251 Do not pierce or burn, even after use.

P261 Avoid breathing spray.

P273 Avoid release to the environment.

Storage:

P410 + P412 Protect from sunlight. Do not expose to tem-

peratures exceeding 50 °C/ 122 °F.

#### Hazardous components which must be listed on the label:

Propan-2-ol

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane

Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics

#### 2.3 Other hazards

May displace oxygen and cause rapid suffocation.

#### **SECTION 3: Composition/information on ingredients**

# 3.2 Mixtures

Components

Chemical name	CAS-No.	Classification	Concentration
	EC-No.		(% w/w)
	Index-No.		
	Registration number		
Propan-2-ol	67-63-0	Flam. Liq. 2; H225	>= 50 - < 70
	200-661-7	Eye Irrit. 2; H319	
	603-117-00-0	STOT SE 3; H336	
	01-2119457558-25		
Hydrocarbons, C6-C7, n-alkanes,	92128-66-0	Flam. Liq. 2; H225	>= 10 - < 20
isoalkanes, cyclics, <5% n-	295-763-1	Skin Irrit. 2; H315	
hexane	01-2119475514-35	STOT SE 3; H336	
		Asp. Tox. 1; H304	
		Aquatic Chronic 2;	

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		H411			
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	64742-49-0	Flam. Liq. 2; H225 Skin Irrit. 2; H315	>= 10 - < 20		
, ,	601-008-00-2	STOT SE 3; H336			
	01-2119475515-33	Asp. Tox. 1; H304 Aquatic Chronic 2; H411			
Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2%	Not Assigned	Flam. Liq. 3; H226 STOT SE 3; H336	>= 2,5 - < 10		
aromatics	01-2119471843-32	Asp. Tox. 1; H304 Aquatic Chronic 3; H412			
Hydrocarbons, C9-C11, n-	64742-48-9	Flam. Liq. 3; H226	>= 1 - < 10		
alkanes, isoalkanes, cyclics, <2%		STOT SE 3; H336			
aromatics	01-2119463258-33	Asp. Tox. 1; H304			
n-Hexane	110-54-3 203-777-6 601-037-00-0	Flam. Liq. 2; H225 Skin Irrit. 2; H315 Repr. 2; H361f STOT SE 3; H336 STOT RE 2; H373 (Central nervous system) Asp. Tox. 1; H304 Aquatic Chronic 2; H411	>= 0,25 - < 1		
Substances with a workplace exposure limit :					
Carbon dioxide	124-38-9 204-696-9	Press. Gas Liquefied gas; H280	>= 1 - < 10		

For explanation of abbreviations see section 16.

# **SECTION 4: First aid measures**

### 4.1 Description of first aid measures

General advice : In the case of accident or if you feel unwell, seek medical ad-

vice immediately.

When symptoms persist or in all cases of doubt seek medical

advice.

Protection of first-aiders : First Aid responders should pay attention to self-protection,

and use the recommended personal protective equipment when the potential for exposure exists (see section 8).

If inhaled : If inhaled, remove to fresh air.

Get medical attention.

In case of skin contact : In case of contact, immediately flush skin with plenty of water

for at least 15 minutes while removing contaminated clothing

and shoes.

Get medical attention. Wash clothing before reuse.

Thoroughly clean shoes before reuse.

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In case of eye contact In case of contact, immediately flush eyes with plenty of water

for at least 15 minutes.

If easy to do, remove contact lens, if worn.

Get medical attention.

If swallowed If swallowed, DO NOT induce vomiting.

Get medical attention.

Rinse mouth thoroughly with water.

4.2 Most important symptoms and effects, both acute and delayed

Risks Causes skin irritation.

> Causes serious eye irritation. May cause drowsiness or dizziness.

4.3 Indication of any immediate medical attention and special treatment needed

**Treatment** : Treat symptomatically and supportively.

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

5.1 Extinguishing media

Suitable extinguishing media : Water spray

> Alcohol-resistant foam Carbon dioxide (CO2)

Dry chemical

Unsuitable extinguishing

media

None known.

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-

fighting

Flash back possible over considerable distance. Vapours may form explosive mixtures with air.

Exposure to combustion products may be a hazard to health. If the temperature rises there is danger of the vessels bursting

due to the high vapor pressure.

Hazardous combustion prod: :

ucts

Carbon oxides

5.3 Advice for firefighters

Special protective equipment:

for firefighters

In the event of fire, wear self-contained breathing apparatus.

Use personal protective equipment.

Specific extinguishing meth-

ods

Use extinguishing measures that are appropriate to local cir-

cumstances and the surrounding environment. Use water spray to cool unopened containers.

Remove undamaged containers from fire area if it is safe to do

SO.

Evacuate area.

according to Regulation (EC) No. 1907/2006



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

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

Personal precautions : Evacuate personnel to safe areas.

Remove all sources of ignition.

Ventilate the area.

Use personal protective equipment.

Follow safe handling advice (see section 7) and personal pro-

tective equipment recommendations (see section 8).

#### 6.2 Environmental precautions

Environmental precautions : Avoid release to the environment.

Prevent further leakage or spillage if safe to do so.

Prevent spreading over a wide area (e.g. by containment or oil

barriers).

Retain and dispose of contaminated wash water.

Local authorities should be advised if significant spillages

cannot be contained.

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

Methods for cleaning up : Non-sparking tools should be used.

Soak up with inert absorbent material.

Suppress (knock down) gases/vapours/mists with a water

spray jet.

For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can be pumped, store recovered material in appropriate container. Clean up remaining materials from spill with suitable absor-

bent.

Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in the cleanup of releases. You will need to deter-

mine which regulations are applicable.

Sections 13 and 15 of this SDS provide information regarding

certain local or national requirements.

#### 6.4 Reference to other sections

See sections: 7, 8, 11, 12 and 13.

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

#### 7.1 Precautions for safe handling

Technical measures : See Engineering measures under EXPOSURE

CONTROLS/PERSONAL PROTECTION section.

Local/Total ventilation : If sufficient ventilation is unavailable, use with local exhaust

ventilation.

If advised by assessment of the local exposure potential, use

according to Regulation (EC) No. 1907/2006



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only in an area equipped with explosion-proof exhaust ventila-

tion.

Advice on safe handling : Do not get on skin or clothing.

Avoid breathing spray.

Do not swallow. Do not get in eyes.

Wash skin thoroughly after handling.

Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure as-

sessment

Keep away from heat, hot surfaces, sparks, open flames and

other ignition sources. No smoking.

Take precautionary measures against static discharges.

Take care to prevent spills, waste and minimize release to the environment.

Do not spray on an open flame or other ignition source.

Hygiene measures : If exposure to chemical is likely during typical use, provide eye

flushing systems and safety showers close to the working place. When using do not eat, drink or smoke. Wash contami-

nated clothing before re-use.

## 7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers

Store locked up. Keep in a cool, well-ventilated place. Store in accordance with the particular national regulations. Do not pierce or burn, even after use. Keep cool. Protect from sun-

light.

Advice on common storage : Do not store with the following product types:

Self-reactive substances and mixtures

Organic peroxides Oxidizing agents Flammable solids Pyrophoric liquids Pyrophoric solids

Self-heating substances and mixtures

Substances and mixtures, which in contact with water, emit

flammable gases

Explosives

Storage class (TRGS 510) : 2B, Aerosol cans and lighters

Recommended storage tem: :

perature

10 - 40 °C

### 7.3 Specific end use(s)

Specific use(s) : No data available

according to Regulation (EC) No. 1907/2006



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

# 8.1 Control parameters

## **Occupational Exposure Limits**

Propan-2-ol 67-63-0 AGW 200 ppm 900  Peak-limit: excursion factor (category): 2;(II)  Further information: Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission)., When there is compliance with the OEL and biological tolerance values, there is no risk of har ing the unborn child  Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane  Peak-limit: excursion factor (category): 2;(II)  Further information: Group exposure limit for hydrocarbon solvent mixtures  Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics  Further information: Indicative  AGW 500 ppm 2000/39/E0  Peak-limit: excursion factor (category): 1;(I)  Further information: Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission).  AGW 700 mg/m3 DE TRGS 900  Peak-limit: excursion factor (category): 2;(II)  Further information: Group exposure limit for hydrocarbon solvent mixtures Commission for dangerous substances, See also No. 2.9 of the TRGS 900  Peak-limit: excursion factor (category): 2;(II)  Further information: Group exposure limit for hydrocarbon solvent mixtures Commission for dangerous substances, See also No. 2.9 of the TRGS 900  Hydrocarbons, C9-C11, n-alkanes, soalkanes, cyclics, <2% aromatics	Components	CAS-No.	Value type (Form	Control parameters	Basis	
Peak-limit: excursion factor (category): 2;(II) Further information: Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission)., When there is con pliance with the OEL and biological tolerance values, there is no risk of han ing the unborn child Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane  Peak-limit: excursion factor (category): 2;(II) Further information: Group exposure limit for hydrocarbon solvent mixtures Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics Further information: Indicative  AGW 500 ppm 2000/39/E0 2.085 mg/m3 Entry 100 mg/m3 900  Peak-limit: excursion factor (category): 1;(I) Further information: Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission).  AGW 700 mg/m3 DE TRGS 900  Peak-limit: excursion factor (category): 2;(II) Further information: Group exposure limit for hydrocarbon solvent mixtures Commission for dangerous substances, See also No. 2.9 of the TRGS 900  Peak-limit: excursion factor (category): 2;(II) Further information: Group exposure limit for hydrocarbon solvent mixtures Commission for dangerous substances, See also No. 2.9 of the TRGS 900  Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	· 		of exposure)			
Peak-limit: excursion factor (category): 2;(II) Further information: Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission)., When there is conpliance with the OEL and biological tolerance values, there is no risk of harming the unborn child Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane  Peak-limit: excursion factor (category): 2;(II) Further information: Group exposure limit for hydrocarbon solvent mixtures Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics Further information: Indicative  AGW 500 ppm 2000/39/E0 2.085 mg/m3 Entry 100 ppm 2000/39/E0 2.085 mg/m3 Entry 100 ppm 2000/39/E0 2.085 mg/m3 Entry 100 ppm 2000/39/E0 2.095 mg/m3  Peak-limit: excursion factor (category): 1;(I) Further information: Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission).  AGW 700 mg/m3 DE TRGS 900  Peak-limit: excursion factor (category): 2;(II) Further information: Group exposure limit for hydrocarbon solvent mixtures Commission for dangerous substances, See also No. 2.9 of the TRGS 900  Peak-limit: excursion factor (category): 2;(II) Further information: Group exposure limit for hydrocarbon solvent mixtures Commission for dangerous substances, See also No. 2.9 of the TRGS 900  Hydrocarbons, C9-C11, n-alkanes, slocalkanes, cyclics, <2% aromatics	Propan-2-ol	67-63-0	AGW			
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work place dangerous for the health (MAK-commission)., When there is conpliance with the OEL and biological tolerance values, there is no risk of harring the unborn child  Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane  Peak-limit: excursion factor (category): 2;(II)  Further information: Group exposure limit for hydrocarbon solvent mixtures  Hydrocarbons, C7, n-alkanes, isoal-kanes, cyclics  Further information: Indicative  AGW 500 ppm 2.085 mg/m3  Peak-limit: excursion factor (category): 1;(I)  Further information: Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission).  AGW 700 mg/m3 DE TRGS 900  Peak-limit: excursion factor (category): 2;(II)  Further information: Group exposure limit for hydrocarbon solvent mixtures Commission for dangerous substances, See also No. 2.9 of the TRGS 900  Peak-limit: excursion factor (category): 2;(II)  Further information: Group exposure limit for hydrocarbon solvent mixtures Commission for dangerous substances, See also No. 2.9 of the TRGS 900  Peak-limit: excursion factor (category): 2;(II)  Further information: Group exposure limit for hydrocarbon solvent mixtures Commission for dangerous substances, See also No. 2.9 of the TRGS 900  Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics						
pliance with the OEL and biological tolerance values, there is no risk of han ing the unborn child  Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane  Peak-limit: excursion factor (category): 2;(II)  Further information: Group exposure limit for hydrocarbon solvent mixtures  Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics  Further information: Indicative  AGW 500 ppm 2.085 mg/m3 2000/39/E0 2.085 mg/m3  Peak-limit: excursion factor (category): 1;(I)  Further information: Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission).  AGW 700 mg/m3 DE TRGS 900  Peak-limit: excursion factor (category): 2;(II)  Further information: Group exposure limit for hydrocarbon solvent mixtures Commission for dangerous substances, See also No. 2.9 of the TRGS 900  Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics						
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane						
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C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane	Hydrocarbons C6-			700 mg/m3	DE TRGS	
isoalkanes, cyclics, <5% n-hexane  Peak-limit: excursion factor (category): 2;(II)  Further information: Group exposure limit for hydrocarbon solvent mixtures  Hydrocarbons, C7, n-alkanes, isoal-kanes, cyclics  Further information: Indicative  AGW 500 ppm 2.085 mg/m3  Peak-limit: excursion factor (category): 1;(I)  Further information: Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission).  AGW 700 mg/m3 DE TRGS 900  Peak-limit: excursion factor (category): 2;(II)  Further information: Group exposure limit for hydrocarbon solvent mixtures Commission for dangerous substances, See also No. 2.9 of the TRGS 900  AGW 300 mg/m3 DE TRGS 900  Peak-limit: excursion factor (category): 2;(II)  Further information: Group exposure limit for hydrocarbon solvent mixtures Commission for dangerous substances, See also No. 2.9 of the TRGS 900  Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics		32120 00 0	AOW	7 00 mg/m3		
Peak-limit: excursion factor (category): 2;(II)  Further information: Group exposure limit for hydrocarbon solvent mixtures  Hydrocarbons, C7, n-alkanes, isoal-kanes, cyclics  Further information: Indicative  AGW 500 ppm 2.085 mg/m3  Peak-limit: excursion factor (category): 1;(I)  Further information: Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission).  AGW 700 mg/m3 DE TRGS 900  Peak-limit: excursion factor (category): 2;(II)  Further information: Group exposure limit for hydrocarbon solvent mixtures Commission for dangerous substances, See also No. 2.9 of the TRGS 900  Peak-limit: excursion factor (category): 2;(III)  Further information: Group exposure limit for hydrocarbon solvent mixtures Commission for dangerous substances, See also No. 2.9 of the TRGS 900  Peak-limit: excursion factor (category): 2;(III)  Further information: Group exposure limit for hydrocarbon solvent mixtures Commission for dangerous substances, See also No. 2.9 of the TRGS 900  Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics						
Further information: Group exposure limit for hydrocarbon solvent mixtures						
Hydrocarbons, C7, n-alkanes, isoal-kanes, cyclics  Further information: Indicative  AGW 500 ppm 2.100 mg/m3 900  Peak-limit: excursion factor (category): 1;(I)  Further information: Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission).  AGW 700 mg/m3 DE TRGS 900  Peak-limit: excursion factor (category): 2;(II)  Further information: Group exposure limit for hydrocarbon solvent mixtures Commission for dangerous substances, See also No. 2.9 of the TRGS 900  Peak-limit: excursion factor (category): 2;(II)  Further information: Group exposure limit for hydrocarbon solvent mixtures Commission for dangerous substances, See also No. 2.9 of the TRGS 900  Peak-limit: excursion factor (category): 2;(II)  Further information: Group exposure limit for hydrocarbon solvent mixtures Commission for dangerous substances, See also No. 2.9 of the TRGS 900  Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics						
n-alkanes, isoal-kanes, cyclics  Further information: Indicative  AGW  Soo ppm 2.100 mg/m3  Peak-limit: excursion factor (category): 1;(I)  Further information: Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission).  AGW  Peak-limit: excursion factor (category): 2;(II)  Further information: Group exposure limit for hydrocarbon solvent mixtures Commission for dangerous substances, See also No. 2.9 of the TRGS 900  Peak-limit: excursion factor (category): 2;(II)  Further information: Group exposure limit for hydrocarbon solvent mixtures Commission for dangerous substances, See also No. 2.9 of the TRGS 900  Peak-limit: excursion factor (category): 2;(II)  Further information: Group exposure limit for hydrocarbon solvent mixtures Commission for dangerous substances, See also No. 2.9 of the TRGS 900  Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics  AGW  300 mg/m3  DE TRGS 900		Further inform	nation: Group exposi		ent mixtures	
kanes, cyclics  Further information: Indicative  AGW  Soo ppm 2.100 mg/m3  Peak-limit: excursion factor (category): 1;(I)  Further information: Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission).  AGW  700 mg/m3  DE TRGS 900  Peak-limit: excursion factor (category): 2;(II)  Further information: Group exposure limit for hydrocarbon solvent mixtures Commission for dangerous substances, See also No. 2.9 of the TRGS 900  AGW  300 mg/m3  DE TRGS 900  Peak-limit: excursion factor (category): 2;(II)  Further information: Group exposure limit for hydrocarbon solvent mixtures Commission for dangerous substances, See also No. 2.9 of the TRGS 900  Peak-limit: excursion factor (category): 2;(II)  Further information: Group exposure limit for hydrocarbon solvent mixtures Commission for dangerous substances, See also No. 2.9 of the TRGS 900  Hydrocarbons, C9- C11, n-alkanes, isoalkanes, cyclics, <2% aromatics  AGW  300 mg/m3  DE TRGS 900		64742-49-0	TWA		2000/39/EC	
Further information: Indicative  AGW  AGW  Soo ppm 2.100 mg/m3  900  Peak-limit: excursion factor (category): 1;(I)  Further information: Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission).  AGW  700 mg/m3  DE TRGS 900  Peak-limit: excursion factor (category): 2;(II)  Further information: Group exposure limit for hydrocarbon solvent mixtures Commission for dangerous substances, See also No. 2.9 of the TRGS 900  AGW  300 mg/m3  DE TRGS 900  Peak-limit: excursion factor (category): 2;(II)  Further information: Group exposure limit for hydrocarbon solvent mixtures Commission for dangerous substances, See also No. 2.9 of the TRGS 900  Peak-limit: excursion factor (category): 2;(II)  Further information: Group exposure limit for hydrocarbon solvent mixtures Commission for dangerous substances, See also No. 2.9 of the TRGS 900  Hydrocarbons, C9- C11, n-alkanes, isoalkanes, cyclics, <2% aromatics				2.085 mg/m3		
AGW 500 ppm 2.100 mg/m3 900  Peak-limit: excursion factor (category): 1;(I)  Further information: Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission).  AGW 700 mg/m3 DE TRGS 900  Peak-limit: excursion factor (category): 2;(II)  Further information: Group exposure limit for hydrocarbon solvent mixtures Commission for dangerous substances, See also No. 2.9 of the TRGS 900  AGW 300 mg/m3 DE TRGS 900  Peak-limit: excursion factor (category): 2;(II)  Further information: Group exposure limit for hydrocarbon solvent mixtures Commission for dangerous substances, See also No. 2.9 of the TRGS 900  Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	kanes, cyclics	Fth. a.v. i.a.f.a.v.a.	ation. Indicative			
Peak-limit: excursion factor (category): 1;(I)  Further information: Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission).  AGW 700 mg/m3 DE TRGS 900  Peak-limit: excursion factor (category): 2;(II)  Further information: Group exposure limit for hydrocarbon solvent mixtures Commission for dangerous substances, See also No. 2.9 of the TRGS 900  AGW 300 mg/m3 DE TRGS 900  Peak-limit: excursion factor (category): 2;(II)  Further information: Group exposure limit for hydrocarbon solvent mixtures Commission for dangerous substances, See also No. 2.9 of the TRGS 900  Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics  AGW 300 mg/m3 DE TRGS 900						
Peak-limit: excursion factor (category): 1;(I)  Further information: Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission).  AGW 700 mg/m3 DE TRGS 900  Peak-limit: excursion factor (category): 2;(II)  Further information: Group exposure limit for hydrocarbon solvent mixtures Commission for dangerous substances, See also No. 2.9 of the TRGS 900  AGW 300 mg/m3 DE TRGS 900  Peak-limit: excursion factor (category): 2;(II)  Further information: Group exposure limit for hydrocarbon solvent mixtures Commission for dangerous substances, See also No. 2.9 of the TRGS 900  Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics			AGW			
Further information: Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission).  AGW 700 mg/m3 DE TRGS 900  Peak-limit: excursion factor (category): 2;(II)  Further information: Group exposure limit for hydrocarbon solvent mixtures Commission for dangerous substances, See also No. 2.9 of the TRGS 900  AGW 300 mg/m3 DE TRGS 900  Peak-limit: excursion factor (category): 2;(II)  Further information: Group exposure limit for hydrocarbon solvent mixtures Commission for dangerous substances, See also No. 2.9 of the TRGS 900  Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics AGW 300 mg/m3 DE TRGS 900						
work place dangerous for the health (MAK-commission).  AGW 700 mg/m3 DE TRGS 900  Peak-limit: excursion factor (category): 2;(II)  Further information: Group exposure limit for hydrocarbon solvent mixtures Commission for dangerous substances, See also No. 2.9 of the TRGS 900  AGW 300 mg/m3 DE TRGS 900  Peak-limit: excursion factor (category): 2;(II)  Further information: Group exposure limit for hydrocarbon solvent mixtures Commission for dangerous substances, See also No. 2.9 of the TRGS 900  Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics  AGW 300 mg/m3 DE TRGS 900						
AGW 700 mg/m3 DE TRGS 900  Peak-limit: excursion factor (category): 2;(II)  Further information: Group exposure limit for hydrocarbon solvent mixtures Commission for dangerous substances, See also No. 2.9 of the TRGS 900  AGW 300 mg/m3 DE TRGS 900  Peak-limit: excursion factor (category): 2;(II)  Further information: Group exposure limit for hydrocarbon solvent mixtures Commission for dangerous substances, See also No. 2.9 of the TRGS 900  Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics DE TRGS						
Peak-limit: excursion factor (category): 2;(II)  Further information: Group exposure limit for hydrocarbon solvent mixtures Commission for dangerous substances, See also No. 2.9 of the TRGS 900  AGW 300 mg/m3 DE TRGS 900  Peak-limit: excursion factor (category): 2;(II)  Further information: Group exposure limit for hydrocarbon solvent mixtures Commission for dangerous substances, See also No. 2.9 of the TRGS 900  Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics  AGW 300 mg/m3 DE TRGS 900		AGW 700 mg/m3 DE TRGS				
Further information: Group exposure limit for hydrocarbon solvent mixtures Commission for dangerous substances, See also No. 2.9 of the TRGS 900  AGW 300 mg/m3 DE TRGS 900  Peak-limit: excursion factor (category): 2;(II)  Further information: Group exposure limit for hydrocarbon solvent mixtures Commission for dangerous substances, See also No. 2.9 of the TRGS 900  Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics  AGW 300 mg/m3 DE TRGS 900						
Commission for dangerous substances, See also No. 2.9 of the TRGS 900  AGW 300 mg/m3 DE TRGS 900  Peak-limit: excursion factor (category): 2;(II)  Further information: Group exposure limit for hydrocarbon solvent mixtures Commission for dangerous substances, See also No. 2.9 of the TRGS 900  Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics  AGW 300 mg/m3 DE TRGS 900  DE TRGS 900		Further information: Group exposure limit for hydrocarbon solvent mixtures, Commission for dangerous substances, See also No. 2.9 of the TRGS 900				
Peak-limit: excursion factor (category): 2;(II)  Further information: Group exposure limit for hydrocarbon solvent mixtures Commission for dangerous substances, See also No. 2.9 of the TRGS 900  Hydrocarbons, C9- C11, n-alkanes, isoalkanes, cyclics, <2% aromatics  George Peak-limit: excursion factor (category): 2;(II)  Further information: Group exposure limit for hydrocarbon solvent mixtures Commission for dangerous substances, See also No. 2.9 of the TRGS 900  DE TRGS 900						
Further information: Group exposure limit for hydrocarbon solvent mixtures Commission for dangerous substances, See also No. 2.9 of the TRGS 900  Hydrocarbons, C9- C11, n-alkanes, isoalkanes, cyclics, <2% aromatics  Further information: Group exposure limit for hydrocarbon solvent mixtures and substances, See also No. 2.9 of the TRGS 900  DE TRGS 900  900			AGW	300 mg/m3		
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics  Commission for dangerous substances, See also No. 2.9 of the TRGS 900  AGW  300 mg/m3  DE TRGS 900  900						
Hydrocarbons, C9- C11, n-alkanes, isoalkanes, cyclics, <2% aromatics  64742-48-9 AGW 300 mg/m3 DE TRGS 900		Further information: Group exposure limit for hydrocarbon solvent mixtures,				
C11, n-alkanes, isoalkanes, cyclics, <2% aromatics		Commission for dangerous substances, See also No. 2.9 of the TRGS 900				
isoalkanes, cyclics, <2% aromatics		64742-48-9	AGW	300 mg/m3		
<2% aromatics					900	
	<2% aromatics	Pook limit: evaluation factor (actorics): 2:/II)				
		Peak-limit: excursion factor (category): 2;(II)  Further information: Group exposure limit for hydrocarbon solvent mixtures, Commission for dangerous substances, See also No. 2.9 of the TRGS 900				
Hydrocarbons, C9- Not As- AGW 300 mg/m3 DE TRGS	Hydrocarbons, C9-					
C10, n-alkanes, signed 900	•					
isoalkanes, cyclics,						
<2% aromatics						
Peak-limit: excursion factor (category): 2;(II)		Peak-limit: excursion factor (category): 2;(II)				
Further information: Group exposure limit for hydrocarbon solvent mixtures		Further inform	nation: Group exposi	ure limit for hydrocarbon solv	ent mixtures,	

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	Commission for dangerous substances, See also No. 2.9 of the TRGS 900			
Carbon dioxide	124-38-9	TWA	5.000 ppm 9.000 mg/m3	2006/15/EC
	Further inforr	nation: Indicative	, <u>.</u>	
		AGW	5.000 ppm 9.100 mg/m3	DE TRGS 900
	Peak-limit: ex	Peak-limit: excursion factor (category): 2;(II)		
n-Hexane	110-54-3 TWA 20 ppm 2006/15/EC 72 mg/m3			
	Further inforr	Further information: Indicative		
	AGW 50 ppm DE TRGS 180 mg/m3 900			
	Peak-limit: excursion factor (category): 8;(II)			
	Further information: Senate commission for the review of compounds at the work place dangerous for the health (MAK-commission)., European Union (The EU has established a limit value: deviations in value and peak limit are possible), When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			

## **Biological occupational exposure limits**

Substance name	CAS-No.	Control parameters	Sampling time	Basis
Propan-2-ol	67-63-0	Acetone: 25 mg/l (Blood)	Immediately after exposure or after working hours	TRGS 903
		Acetone: 25 mg/l (Urine)	Immediately after exposure or after working hours	TRGS 903
n-Hexane	110-54-3	2,5-hexanedione plus 4,5-dihydroxy- 2-hexanone: 5 mg/l (Urine)	Immediately after exposure or after working hours	TRGS 903

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

Substance name	End Use	Exposure routes	Potential health ef-	Value
Substance name	Liid Ose	Exposure routes	fects	value
Propan-2-ol	Workers	Inhalation	Long-term systemic effects	500 mg/m3
	Workers	Skin contact	Long-term systemic effects	888 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	89 mg/m3
	Consumers	Skin contact	Long-term systemic effects	319 mg/kg bw/day
	Consumers	Ingestion	Long-term systemic effects	26 mg/kg bw/day
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	Workers	Inhalation	Long-term systemic effects	2085 mg/m3
	Workers	Skin contact	Long-term systemic effects	300 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	447 mg/m3

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	Consumers	Skin contact	Long-term systemic effects	149 mg/kg bw/day
	Consumers	Ingestion	Long-term systemic effects	149 mg/kg bw/day
Hydrocarbons, C9- C11, n-alkanes, isoal- kanes, cyclics, <2% aromatics	Workers	Inhalation	Long-term systemic effects	1500 mg/m3
	Workers	Skin contact	Long-term systemic effects	300 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	900 mg/m3
	Consumers	Skin contact	Long-term systemic effects	300 mg/kg bw/day
	Consumers	Ingestion	Long-term systemic effects	300 mg/kg bw/day
n-Hexane	Workers	Skin contact	Long-term systemic effects	11 mg/kg bw/day
	Workers	Inhalation	Long-term systemic effects	75 mg/m3
	Consumers	Skin contact	Long-term systemic effects	5,3 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	16 mg/m3
	Consumers	Ingestion	Long-term systemic effects	4 mg/kg bw/day
Hydrocarbons, C6- C7, n-alkanes, isoal- kanes, cyclics, <5% n-hexane	Workers	Inhalation	Long-term systemic effects	2035 mg/m3
	Workers	Skin contact	Long-term systemic effects	773 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	608 mg/m3
	Consumers	Skin contact	Long-term systemic effects	699 mg/kg bw/day
	Consumers	Ingestion	Long-term systemic effects	699 mg/kg bw/day

## Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
Propan-2-ol	Fresh water	140,9 mg/l
	Marine water	140,9 mg/l
	Intermittent use/release	140,9 mg/l
	Sewage treatment plant	2251 mg/l
	Fresh water sediment	552 mg/kg dry weight (d.w.)
	Marine sediment	552 mg/kg dry weight (d.w.)
	Soil	28 mg/kg dry weight (d.w.)
	Oral (Secondary Poisoning)	160 mg/kg food

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#### 8.2 Exposure controls

#### **Engineering measures**

Minimize workplace exposure concentrations.

If sufficient ventilation is unavailable, use with local exhaust ventilation.

If advised by assessment of the local exposure potential, use only in an area equipped with explosion-proof exhaust ventilation.

#### Personal protective equipment

Eye protection : Wear the following personal protective equipment:

Safety goggles

Equipment should conform to DIN EN 166

Hand protection

Material : Nitrile rubber
Break through time : 480 min
Glove thickness : 0,45 mm

Directive : Equipment should conform to DIN EN 374

Remarks : Choose gloves to protect hands against chemicals depending

on the concentration and quantity of the hazardous substance and specific to place of work. For special applications, we recommend clarifying the resistance to chemicals of the aforementioned protective gloves with the glove manufacturer. Wash hands before breaks and at the end of workday.

Skin and body protection : Select appropriate protective clothing based on chemical

resistance data and an assessment of the local exposure

potential.

Wear the following personal protective equipment:

If assessment demonstrates that there is a risk of explosive atmospheres or flash fires, use flame retardant antistatic

protective clothing.

Skin contact must be avoided by using impervious protective

clothing (gloves, aprons, boots, etc).

Respiratory protection : If adequate local exhaust ventilation is not available or expo-

sure assessment demonstrates exposures outside the rec-

ommended guidelines, use respiratory protection.

Equipment should conform to DIN EN 137

Filter type : Self-contained breathing apparatus

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

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

Appearance : aerosol

Colour : green

Odour : characteristic

according to Regulation (EC) No. 1907/2006



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Odour Threshold : No data available

pH : No data available

Melting point/freezing point : No data available

Initial boiling point and boiling

range

51 °C

Flash point : Not applicable

Evaporation rate : Not applicable

Flammability (solid, gas) : Extremely flammable aerosol.

Upper explosion limit / Upper

flammability limit

12 %(V)

Lower explosion limit / Lower

flammability limit

0,6 %(V)

Vapour pressure : Not applicable

Relative vapour density : Not applicable

Density : 0,755 g/cm3 (20 °C)

Solubility(ies)

Water solubility : insoluble

Partition coefficient: n-

octanol/water

Not applicable

Auto-ignition temperature : 200 °C

Decomposition temperature : No data available

Viscosity

Viscosity, kinematic : < 7 mm2/s

Explosive properties : Not explosive

Oxidizing properties : The substance or mixture is not classified as oxidizing.

9.2 Other information

Particle size : Not applicable

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

### 10.1 Reactivity

Not classified as a reactivity hazard.

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#### 10.2 Chemical stability

Stable under normal conditions.

#### 10.3 Possibility of hazardous reactions

Hazardous reactions : Extremely flammable aerosol.

Vapours may form explosive mixture with air.

If the temperature rises there is danger of the vessels bursting

due to the high vapor pressure. Can react with strong oxidizing agents.

10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

10.5 Incompatible materials

Materials to avoid : Oxidizing agents

### 10.6 Hazardous decomposition products

No hazardous decomposition products are known.

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

## 11.1 Information on toxicological effects

Information on likely routes of : Inhalation

exposure Skin contact

Ingestion Eye contact

#### **Acute toxicity**

Not classified based on available information.

#### **Components:**

Propan-2-ol:

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

Acute inhalation toxicity : LC50 (Rat): > 25 mg/l

Exposure time: 6 h
Test atmosphere: vapour

Acute dermal toxicity : LD50 (Rabbit): > 5.000 mg/kg

### Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane:

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

Acute inhalation toxicity : LC50 (Rat): > 5,61 mg/l

Exposure time: 4 h
Test atmosphere: vapour

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

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Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics:

Acute oral toxicity : LD50 (Rat): > 5.840 mg/kg

Remarks: Based on data from similar materials

Acute inhalation toxicity : LC50 (Rat): > 23,3 mg/l

Exposure time: 4 h
Test atmosphere: vapour

Remarks: Based on data from similar materials

Acute dermal toxicity : LD50 (Rat): > 2.800 mg/kg

Assessment: The substance or mixture has no acute dermal

toxicity

Remarks: Based on data from similar materials

Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics:

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

Remarks: Based on data from similar materials

Acute inhalation toxicity : LC50 (Rat): > 4.951 mg/m3

Exposure time: 4 h Test atmosphere: vapour

Assessment: The substance or mixture has no acute inhala-

tion toxicity

Remarks: Based on data from similar materials

Acute dermal toxicity : LD50 (Rabbit): > 3.160 mg/kg

Assessment: The substance or mixture has no acute dermal

toxicity

Remarks: Based on data from similar materials

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics:

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

Method: OECD Test Guideline 401

Remarks: Based on data from similar materials

Acute inhalation toxicity : LC50 (Rat): > 5.600 mg/m3

Exposure time: 4 h

Test atmosphere: dust/mist

Assessment: The substance or mixture has no acute inhala-

tion toxicity

Remarks: Based on data from similar materials

Acute dermal toxicity : LD50 (Rabbit): > 5.000 mg/kg

Remarks: Based on data from similar materials

n-Hexane:

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

Acute inhalation toxicity : LC50 (Rat): > 31,86 mg/l

Exposure time: 4 h
Test atmosphere: vapour

Assessment: The substance or mixture has no acute inhala-

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tion toxicity

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

Assessment: The substance or mixture has no acute dermal

toxicity

Carbon dioxide:

LC50 (Rat): 40000 - 50000 ppm Acute inhalation toxicity

> Exposure time: 30 min Test atmosphere: vapour

Skin corrosion/irritation

Causes skin irritation.

**Components:** 

Propan-2-ol:

**Species** Rabbit

Result No skin irritation

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane:

**Species** Rabbit

**OECD Test Guideline 404** Method

Result Skin irritation

Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics:

**Species** Rabbit Result

Skin irritation

Based on data from similar materials Remarks

Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics:

**Species** Rabbit

Result Mild skin irritation

Assessment Repeated exposure may cause skin dryness or cracking.

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics:

Result Mild skin irritation

Assessment Repeated exposure may cause skin dryness or cracking.

n-Hexane:

**Species** Rabbit Result Skin irritation

Remarks Based on data from similar materials

Serious eye damage/eye irritation

Causes serious eye irritation.

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#### **Components:**

Propan-2-ol:

Species : Rabbit

Result : Irritation to eyes, reversing within 21 days

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane:

Species : Rabbit

Result : No eye irritation

Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics:

Species : Rabbit

Result : No eye irritation

Remarks : Based on data from similar materials

Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics:

Species : Rabbit

Method : OECD Test Guideline 405

Result : No eye irritation

Remarks : Based on data from similar materials

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics:

Species : Rabbit

Method : OECD Test Guideline 405

Result : No eye irritation

Remarks : Based on data from similar materials

n-Hexane:

Species : Rabbit

Result : No eye irritation

## Respiratory or skin sensitisation

#### Skin sensitisation

Not classified based on available information.

#### Respiratory sensitisation

Not classified based on available information.

#### **Components:**

## Propan-2-ol:

Test Type : Buehler Test Exposure routes : Skin contact Species : Guinea pig

Method : OECD Test Guideline 406

Result : negative

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane:

Test Type : Buehler Test

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Exposure routes : Skin contact
Species : Guinea pig
Result : negative

## Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics:

Test Type : Maximisation Test
Exposure routes : Skin contact
Species : Guinea pig
Result : negative

Remarks : Based on data from similar materials

# Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics:

Test Type : Maximisation Test
Exposure routes : Skin contact
Species : Guinea pig
Result : negative

Remarks : Based on data from similar materials

#### Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics:

Test Type : Maximisation Test
Exposure routes : Skin contact
Species : Guinea pig
Result : negative

Remarks : Based on data from similar materials

n-Hexane:

Test Type : Local lymph node assay (LLNA)

Exposure routes : Skin contact Species : Mouse Result : negative

## Germ cell mutagenicity

Not classified based on available information.

#### Components:

Propan-2-ol:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)

Result: negative

Test Type: In vitro mammalian cell gene mutation test

Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo

cytogenetic assay) Species: Mouse

Application Route: Intraperitoneal injection

Result: negative

## Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane:

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Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)

Result: negative

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo

cytogenetic assay) Species: Rat

Application Route: inhalation (vapour)

Method: OPPTS 870.5395

Result: negative

Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics:

Genotoxicity in vitro : Test Type: Chromosome aberration test in vitro

Result: negative

Remarks: Based on data from similar materials

Test Type: Bacterial reverse mutation assay (AMES)

Result: negative

Remarks: Based on data from similar materials

Test Type: In vitro mammalian cell gene mutation test

Method: OECD Test Guideline 476

Result: negative

Remarks: Based on data from similar materials

Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics:

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test

Result: negative

Remarks: Based on data from similar materials

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo

cytogenetic assay) Species: Mouse

Application Route: Ingestion

Result: negative

Germ cell mutagenicity- As-

sessment

Classified based on benzene content < 0.1% (Regulation (EC)

1272/2008, Annex VI, Part 3, Note P)

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)

Method: OECD Test Guideline 471

Result: negative

Remarks: Based on data from similar materials

Genotoxicity in vivo : Test Type: Mammalian erythrocyte micronucleus test (in vivo

cytogenetic assay) Species: Mouse

**Application Route: Ingestion** 

Result: negative

Remarks: Based on data from similar materials

Germ cell mutagenicity- As- : Classified based on benzene content < 0.1% (Regulation (EC)

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sessment 1272/2008, Annex VI, Part 3, Note P)

n-Hexane:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)

Method: OECD Test Guideline 471

Result: negative

Test Type: In vitro mammalian cell gene mutation test

Method: OECD Test Guideline 476

Result: negative

Genotoxicity in vivo : Test Type: Rodent dominant lethal test (germ cell) (in vivo)

Species: Mouse

Application Route: inhalation (vapour)

Result: negative

Test Type: Mutagenicity (in vivo mammalian bone-marrow

cytogenetic test, chromosomal analysis)

Species: Rat

Application Route: inhalation (vapour)

Result: negative

Remarks: Based on data from similar materials

#### Carcinogenicity

Not classified based on available information.

#### Components:

## Propan-2-ol:

Species : Rat

Application Route : inhalation (vapour)

Exposure time : 104 weeks

Method : OECD Test Guideline 451

Result : negative

## Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane:

Species: MouseApplication Route: Skin contactExposure time: 102 weeksResult: negative

### Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics:

Species : Rat

Application Route : inhalation (vapour)

Exposure time : 105 weeks Result : negative

Remarks : Based on data from similar materials

Carcinogenicity - Assess- : Classified based on benzene content < 0.1% (Regulation (EC)

ment 1272/2008, Annex VI, Part 3, Note P)

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Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics:

Rat

**Application Route** inhalation (vapour)

Exposure time 105 weeks Result negative

Remarks Based on data from similar materials

Classified based on benzene content < 0.1% (Regulation (EC) Carcinogenicity - Assess-

1272/2008, Annex VI, Part 3, Note P) ment

n-Hexane:

**Species** Mouse

inhalation (vapour) **Application Route** 

Exposure time 2 Years

Method **OECD Test Guideline 451** 

Result negative

Remarks Based on data from similar materials

Reproductive toxicity

Not classified based on available information.

**Components:** 

Propan-2-ol:

Effects on fertility Test Type: Two-generation reproduction toxicity study

Species: Rat

Application Route: Ingestion

Result: negative

Effects on foetal develop-

Species: Rat ment

Application Route: Ingestion

Result: negative

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane:

Effects on fertility Test Type: Two-generation reproduction toxicity study

Species: Rat

Application Route: inhalation (vapour)

Test Type: Embryo-foetal development

Result: negative

Effects on foetal develop-

ment

Test Type: Embryo-foetal development

Species: Rat

Application Route: inhalation (vapour)

Result: negative

Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics:

Effects on fertility Test Type: Two-generation reproduction toxicity study

Species: Rat

Application Route: inhalation (vapour)

Result: negative

Remarks: Based on data from similar materials

according to Regulation (EC) No. 1907/2006



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Effects on foetal develop-

ment

Test Type: Fertility/early embryonic development

Species: Rat

Application Route: inhalation (vapour)

Result: negative

Remarks: Based on data from similar materials

Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics:

Effects on fertility : Test Type: Reproduction/Developmental toxicity screening

test

Species: Rat

Application Route: inhalation (vapour)

Result: negative

Effects on foetal develop-

ment

Test Type: Embryo-foetal development

Species: Rat

Application Route: inhalation (vapour)

Result: negative

Remarks: Based on data from similar materials

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics:

Effects on fertility : Test Type: One-generation reproduction toxicity study

Species: Rat

**Application Route: Ingestion** 

Result: negative

Remarks: Based on data from similar materials

Effects on foetal develop-

ment

Test Type: Embryo-foetal development

Species: Rat

Application Route: inhalation (vapour)

Result: negative

Remarks: Based on data from similar materials

n-Hexane:

Effects on fertility : Test Type: Fertility/early embryonic development

Application Route: inhalation (vapour)

Result: positive

Effects on foetal develop-

ment

Test Type: Embryo-foetal development

Species: Mouse

Application Route: inhalation (vapour)

Result: negative

Reproductive toxicity - As-

sessment

Some evidence of adverse effects on sexual function and

fertility, based on animal experiments.

STOT - single exposure

May cause drowsiness or dizziness.

according to Regulation (EC) No. 1907/2006



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**Components:** 

Propan-2-ol:

Assessment : May cause drowsiness or dizziness.

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane:

Assessment : May cause drowsiness or dizziness.

Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics:

Assessment : May cause drowsiness or dizziness.

Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics:

Assessment : May cause drowsiness or dizziness.

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics:

Assessment : May cause drowsiness or dizziness.

n-Hexane:

Assessment : May cause drowsiness or dizziness.

STOT - repeated exposure

Not classified based on available information.

**Components:** 

n-Hexane:

Exposure routes : inhalation (vapour)
Target Organs : Central nervous system

Assessment : May cause damage to organs through prolonged or repeated

exposure.

Repeated dose toxicity

**Components:** 

Propan-2-ol:

Species : Rat NOAEL : 12,5 mg/l

Application Route : inhalation (vapour)

Exposure time : 104 Weeks

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane:

Species : Rat NOAEL : > 20 mg/l

Application Route : inhalation (vapour)

Exposure time : 13 Weeks

Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics:

according to Regulation (EC) No. 1907/2006



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Species : Rat
NOAEL : 12,47 mg/l
Application Route : Inhalation
Exposure time : 90 Days

Remarks : Based on data from similar materials

## Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics:

Species : Rat

NOAEL : 10.186 mg/m3
Application Route : inhalation (vapour)

Exposure time : 13 Weeks

### Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics:

Species : Rat

NOAEL : >= 1.000 mg/kg
Application Route : Ingestion
Exposure time : 54 Days

Remarks : Based on data from similar materials

#### n-Hexane:

Species : Mouse LOAEL : 1,76 mg/l

Application Route : inhalation (vapour)

Exposure time : 13 Weeks

Species : Rat, male
NOAEL : 568 mg/kg
LOAEL : 3.973 mg/kg
Application Route : Ingestion
Exposure time : 90 Days

#### **Aspiration toxicity**

Not classified based on available information.

### **Components:**

#### Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane:

The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

#### Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics:

The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

## Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics:

The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

according to Regulation (EC) No. 1907/2006



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#### Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics:

The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

#### n-Hexane:

The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

#### **Experience with human exposure**

## **Components:**

n-Hexane:

Inhalation : Target Organs: Central nervous system

Symptoms: Central nervous system depression

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

# 12.1 Toxicity

#### **Components:**

Propan-2-ol:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 9.640 mg/l

Exposure time: 96 h

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): > 10.000 mg/l

Exposure time: 24 h

Toxicity to microorganisms : EC50 (Pseudomonas putida): > 1.050 mg/l

Exposure time: 16 h

## Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane:

Toxicity to fish : LL50 (Pimephales promelas (fathead minnow)): 8,2 mg/l

Exposure time: 96 h

Test substance: Water Accommodated Fraction

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 4,5 mg/l

Exposure time: 48 h

Test substance: Water Accommodated Fraction

Method: OECD Test Guideline 202

Remarks: Based on data from similar materials

Toxicity to algae/aquatic

plants

EL50 (Pseudokirchneriella subcapitata (green algae)): 3,1

mg/l

Exposure time: 72 h

Test substance: Water Accommodated Fraction

Method: OECD Test Guideline 201

Remarks: Based on data from similar materials

NOELR (Pseudokirchneriella subcapitata (green algae)): 0,5

according to Regulation (EC) No. 1907/2006



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mg/l

Exposure time: 72 h

Test substance: Water Accommodated Fraction

Method: OECD Test Guideline 201

Remarks: Based on data from similar materials

Toxicity to daphnia and other : aquatic invertebrates (Chron-

ic toxicity)

NOELR: 2,6 mg/l Exposure time: 21 d

Species: Daphnia magna (Water flea) Method: OECD Test Guideline 211

## Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics:

Toxicity to fish LL50 (Oncorhynchus mykiss (rainbow trout)): > 13,4 mg/l

Exposure time: 96 h

Test substance: Water Accommodated Fraction

Method: OECD Test Guideline 203

Remarks: No toxicity at the limit of solubility

Toxicity to daphnia and other :

aquatic invertebrates

EL50 (Daphnia magna (Water flea)): 3 mg/l

Exposure time: 48 h

Test substance: Water Accommodated Fraction

Method: OECD Test Guideline 202

Remarks: Based on data from similar materials

Toxicity to algae/aquatic

plants

EL50 (Selenastrum capricornutum (green algae)): > 10 - 100

mg/l

Exposure time: 72 h

Test substance: Water Accommodated Fraction

Method: OECD Test Guideline 201

Remarks: Based on data from similar materials

NOELR (Selenastrum capricornutum (green algae)): 0,1 mg/l

Exposure time: 72 h

Test substance: Water Accommodated Fraction

Method: OECD Test Guideline 201

Remarks: Based on data from similar materials

Toxicity to daphnia and other : aquatic invertebrates (Chron-

ic toxicity)

NOEC: 0,17 mg/l Exposure time: 21 d

Species: Daphnia magna (Water flea)

Test substance: Water Accommodated Fraction

Method: OECD Test Guideline 211

Remarks: Based on data from similar materials

## Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics:

Toxicity to fish LL50 (Oncorhynchus mykiss (rainbow trout)): > 10 - 30 mg/l

Exposure time: 96 h

Test substance: Water Accommodated Fraction

Method: OECD Test Guideline 203

Remarks: Based on data from similar materials

Toxicity to daphnia and other :

aquatic invertebrates

EL50 (Daphnia magna (Water flea)): > 22 - 46 mg/l

Exposure time: 48 h

according to Regulation (EC) No. 1907/2006



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Test substance: Water Accommodated Fraction

Method: OECD Test Guideline 202

Remarks: Based on data from similar materials

Toxicity to algae/aquatic

plants

EL50 (Pseudokirchneriella subcapitata (green algae)): > 1.000

mg/l

Exposure time: 72 h

Test substance: Water Accommodated Fraction

Method: OECD Test Guideline 201

Remarks: Based on data from similar materials

NOELR (Pseudokirchneriella subcapitata (green algae)): 1

mg/l

Exposure time: 72 h

Test substance: Water Accommodated Fraction

Method: OECD Test Guideline 201

Remarks: Based on data from similar materials

### Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics:

Toxicity to fish : LL50 (Oncorhynchus mykiss (rainbow trout)): > 1.000 mg/l

Exposure time: 96 h

Test substance: Water Accommodated Fraction

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

EL50 (Daphnia magna (Water flea)): > 1.000 mg/l

Exposure time: 48 h

Test substance: Water Accommodated Fraction

Method: OECD Test Guideline 202

Toxicity to algae/aquatic

plants

EL50 (Pseudokirchneriella subcapitata (green algae)): > 1.000

mg/l

Exposure time: 72 h

Test substance: Water Accommodated Fraction

Method: OECD Test Guideline 201

NOELR (Pseudokirchneriella subcapitata (green algae)): 100

mg/l

Exposure time: 72 h

Test substance: Water Accommodated Fraction

Method: OECD Test Guideline 201

n-Hexane:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 2,5 mg/l

Exposure time: 96 h

Toxicity to daphnia and other :

aquatic invertebrates

EL50 (Daphnia magna (Water flea)): 3,88 mg/l

Exposure time: 48 h

Test substance: Water Accommodated Fraction

Toxicity to algae/aquatic

plants

EL50 (Pseudokirchneriella subcapitata (green algae)): 55 mg/l

Exposure time: 72 h

Test substance: Water Accommodated Fraction

Method: OECD Test Guideline 201

according to Regulation (EC) No. 1907/2006



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Remarks: Based on data from similar materials

NOEL (Pseudokirchneriella subcapitata (green algae)): 30

mg/l

Exposure time: 72 h

Test substance: Water Accommodated Fraction

Method: OECD Test Guideline 201

Remarks: Based on data from similar materials

Carbon dioxide:

Toxicity to fish NOEC (Lepomis macrochirus (Bluegill sunfish)): > 100 mg/l

Exposure time: 96 h

Remarks: Based on data from similar materials

Toxicity to daphnia and other :

aquatic invertebrates

NOEC (Daphnia magna (Water flea)): > 100 mg/l

Exposure time: 48 h

Remarks: Based on data from similar materials

## 12.2 Persistence and degradability

### Components:

Propan-2-ol:

Biodegradability Result: rapidly degradable

BOD/COD BOD: 1.19 (BOD5)

> COD: 2.23 BOD/COD: 53 %

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane:

Biodegradability Result: Readily biodegradable.

Biodegradation: 77,05 % Exposure time: 28 d

Method: OECD Test Guideline 301F

Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics:

Biodegradability Result: Readily biodegradable.

Method: OECD Test Guideline 301F

Remarks: Based on data from similar materials

Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, <2% aromatics:

Biodegradability Result: Readily biodegradable.

> Biodegradation: 89 % Exposure time: 28 d

Method: OECD Test Guideline 301F

Remarks: Based on data from similar materials

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics:

Biodegradability Result: Readily biodegradable.

Biodegradation: 80 %

according to Regulation (EC) No. 1907/2006



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Exposure time: 28 d

Method: OECD Test Guideline 301F

n-Hexane:

Biodegradability: Result: Readily biodegradable.

Method: OECD Test Guideline 301F

Remarks: Based on data from similar materials

### 12.3 Bioaccumulative potential

#### **Components:**

Propan-2-ol:

Partition coefficient: n-

octanol/water

log Pow: 0,05

#### Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane:

Partition coefficient: n- : log Pow: 4

octanol/water Remarks: Based on data from similar materials

### Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics:

Partition coefficient: n- : log Pow: > 4

octanol/water Remarks: Based on data from similar materials

n-Hexane:

Partition coefficient: n-

octanol/water

log Pow: 4

Carbon dioxide:

Partition coefficient: n-

octanol/water

log Pow: 0,83

### 12.4 Mobility in soil

No data available

## 12.5 Results of PBT and vPvB assessment

Not relevant

#### 12.6 Other adverse effects

No data available

### **SECTION 13: Disposal considerations**

# 13.1 Waste treatment methods

Product : Dispose of in accordance with local regulations.

According to the European Waste Catalogue, Waste Codes

are not product specific, but application specific.

Waste codes should be assigned by the user, preferably in

discussion with the waste disposal authorities.

according to Regulation (EC) No. 1907/2006



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Contaminated packaging : Empty containers should be taken to an approved waste han-

dling site for recycling or disposal.

Empty containers retain residue and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition. They may explode and cause injury and/or death. If not otherwise specified: Dispose of as unused product. Please ensure aerosol cans are sprayed completely empty

(including propellant)

Waste Code : The following Waste Codes are only suggestions:

used product

16 05 04, gases in pressure containers (including halons)

containing hazardous substances

unused product

16 05 04, gases in pressure containers (including halons)

containing hazardous substances

uncleaned packagings

15 01 10, packaging containing residues of or contaminated

by hazardous substances

Acc. Packaging Act properly emptied packaging: Properly emptied, non-contaminated packaging of nonhazardous products can be supplied to a system for the col-

lection of sales packaging.

### **SECTION 14: Transport information**

#### 14.1 UN number

ADN : UN 1950
ADR : UN 1950
RID : UN 1950
IMDG : UN 1950
IATA : UN 1950

14.2 UN proper shipping name

ADN : AEROSOLS
ADR : AEROSOLS
RID : AEROSOLS
IMDG : AEROSOLS

IATA : Aerosols, flammable

#### 14.3 Transport hazard class(es)

according to Regulation (EC) No. 1907/2006



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ADN : 2
ADR : 2
RID : 2
IMDG : 2.1
IATA : 2.1

## 14.4 Packing group

ADN

Packing group : Not assigned by regulation

Classification Code : 5F Labels : 2.1

**ADR** 

Packing group : Not assigned by regulation

Classification Code : 5F Labels : 2.1 Tunnel restriction code : (D)

**RID** 

Packing group : Not assigned by regulation

Classification Code : 5F Hazard Identification Number : 23 Labels : 2.1

**IMDG** 

Packing group : Not assigned by regulation

Labels : 2.1 EmS Code : F-D, S-U

IATA (Cargo)

Packing instruction (cargo : 203

aircraft)

Packing instruction (LQ) : Y203

Packing group : Not assigned by regulation

Labels : Flammable Gas

IATA (Passenger)

Packing instruction (passen: 203

ger aircraft)

Packing instruction (LQ) : Y203

Packing group : Not assigned by regulation

Labels : Flammable Gas

14.5 Environmental hazards

**ADN** 

Environmentally hazardous : no

ADR

Environmentally hazardous : no

RID

Environmentally hazardous : no

**IMDG** 

Marine pollutant : no

according to Regulation (EC) No. 1907/2006



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#### 14.6 Special precautions for user

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

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

Not applicable for product as supplied. Remarks

#### **SECTION 15: Regulatory information**

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

REACH - Restrictions on the manufacture, placing on

the market and use of certain dangerous substances,

preparations and articles (Annex XVII)

REACH - Candidate List of Substances of Very High

Concern for Authorisation (Article 59).

Not applicable

REACH - List of substances subject to authorisation

(Annex XIV)

Not applicable

Not applicable

Regulation (EC) No 1005/2009 on substances that de-

plete the ozone layer

Not applicable

Regulation (EU) 2019/1021 on persistent organic pollu-

tants (recast)

Not applicable

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

of dangerous chemicals

Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

Quantity 1 Quantity 2 FLAMMABLE AEROSOLS P3b 5.000 t 50.000 t

34 Petroleum products: (a) 2.500 t 25.000 t

> gasolines and naphthas. (b) kerosenes (including jet fuels), (c) gas oils (including diesel fuels, home heating oils and gas oil blending streams),(d) heavy fuel oils (e) alternative fuels serving the same purposes and with similar properties as regards flammability and environmental hazards as the products referred to in

points (a) to (d)

according to Regulation (EC) No. 1907/2006



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Water contaminating class

WGK 2 obviously hazardous to water

(Germany)

Classification according to AwSV, Annex 1 (5.2)

Volatile organic compounds

Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control) Volatile organic compounds (VOC) content: 95,44 %, 669,96

g/l

Remarks: VOC content excluding water

Regulation (EC) No. 648/2004, as amended

30 % and more: Aliphatic hydrocarbons

Other constituents: Perfumes

#### Other regulations:

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

#### 15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

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

Other information : Items where changes have been made to the previous version

are highlighted in the body of this document by two vertical

lines.

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

H225 : Highly flammable liquid and vapour.

H226 : Flammable liquid and vapour.

H280 : Contains gas under pressure; may explode if heated.

H304 : May be fatal if swallowed and enters airways.

H315 : Causes skin irritation.

H319 : Causes serious eye irritation.
H336 : May cause drowsiness or dizziness.
H361f : Suspected of damaging fertility.

H373 : May cause damage to organs through prolonged or repeated

exposure.

H411 : Toxic to aquatic life with long lasting effects.
H412 : Harmful to aquatic life with long lasting effects.

#### Full text of other abbreviations

Aquatic Chronic : Long-term (chronic) aquatic hazard

Asp. Tox. : Aspiration hazard
Eye Irrit. : Eye irritation
Flam. Liq. : Flammable liquids
Press. Gas : Gases under pressure
Repr. : Reproductive toxicity
Skin Irrit. : Skin irritation

STOT RE : Specific target organ toxicity - repeated exposure STOT SE : Specific target organ toxicity - single exposure

2000/39/EC : Europe. Commission Directive 2000/39/EC establishing a first

list of indicative occupational exposure limit values

according to Regulation (EC) No. 1907/2006



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2006/15/EC Europe. Indicative occupational exposure limit values DE TRGS 900 Germany. TRGS 900 - Occupational exposure limit values.

**TRGS 903** TRGS 903 - Biological limit values

: Limit Value - eight hours 2000/39/EC / TWA : Limit Value - eight hours 2006/15/EC / TWA DE TRGS 900 / AGW Time Weighted Average

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

#### **Further information**

Sources of key data used to : Internal technical data, data from raw material SDSs, OECD compile the Safety Data

eChem Portal search results and European Chemicals Agen-

Classification procedure:

Sheet cy, http://echa.europa.eu/

#### Classification of the mixture:

Aerosol 1	H222, H229	Based on product data or assessment
Skin Irrit. 2	H315	Calculation method
Eye Irrit. 2	H319	Calculation method
STOT SE 3	H336	Calculation method
Aquatic Chronic 3	H412	Calculation method

according to Regulation (EC) No. 1907/2006



## HHS CLEAN - 500 ML

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