



## Safety Data Sheet according to Regulation (EC) No 1907/2006

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TEROSON VR 4600 AE

SDS No. : 76286  
V012.0

Revision: 20.03.2017

printing date: 26.11.2020

Replaces version from: 14.12.2016

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

#### 1.1. Product identifier

TEROSON VR 4600 AE

#### Contains:

n-Butyl acetate  
Acetone

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

Intended use:  
Aerosol

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

Henkel Ltd  
Wood Lane End  
HP2 4RQ Hemel Hempstead

Great Britain

Phone: +44 1442 278000  
Fax-no.: +44 1442 278071

ua-productsafety.uk@henkel.com

#### 1.4. Emergency telephone number

24 Hours Emergency Tel: +44 0 8701 906777 - For further general health & safety, technical and practical advice on this product, please call +44 (0) 1606 593933 or write to: Technical Services; Henkel Limited; Road 5; Winsford Industrial Estate; Winsford; Cheshire; CW7 3QY- Email: technical.services@henkel.co.uk

### SECTION 2: Hazards identification

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

##### Classification (CLP):

Aerosols	Category 1
H222 Extremely flammable aerosol.	
H229 Pressurised container: May burst if heated.	
Serious eye irritation	Category 2
H319 Causes serious eye irritation.	
Specific target organ toxicity - single exposure	Category 3
H336 May cause drowsiness or dizziness.	
Target organ: Central Nervous System	
Chronic hazards to the aquatic environment	Category 2
H411 Toxic to aquatic life with long lasting effects.	

#### 2.2. Label elements

##### Label elements (CLP):

**Hazard pictogram:**



**Signal word:**

Danger

**Hazard statement:**

H222 Extremely flammable aerosol.  
H229 Pressurised container: May burst if heated.  
H319 Causes serious eye irritation.  
H336 May cause drowsiness or dizziness.  
H411 Toxic to aquatic life with long lasting effects.

**Supplemental information**

EUH066 Repeated exposure may cause skin dryness or cracking.

**Precautionary statement:  
Prevention**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.  
No smoking.  
P251 Do not pierce or burn, even after use.  
P261 Avoid breathing vapours.  
P273 Avoid release to the environment.  
P280 Wear eye protection/face protection.

**Precautionary statement:  
Response**

P370+P378 In case of fire: Use CO<sub>2</sub>, dry chemical, or foam for extinction.

**Precautionary statement:  
Storage**

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.

**2.3. Other hazards**

The aerosol container is under pressure. Do not expose to high temperatures.  
Solvents contained in the product evaporate during processing and their vapors can form explosive/highly inflammable air/vapor mixtures.  
The solvent vapors are heavier than air and may collect in high concentrations at floor level.  
Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

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

**3.2. Mixtures**

**General chemical description:**

Coating

**Base substances of preparation:**

Corrosion inhibitor

**Declaration of the ingredients according to CLP (EC) No 1272/2008:**

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
zinc powder - zinc dust (stabilized) 7440-66-6	231-175-3 01-2119467174-37	20- < 25 %	Aquatic Acute 1 H400 Aquatic Chronic 1 H410
n-Butyl acetate 123-86-4	204-658-1 01-2119485493-29	12,5- < 20 %	Flam. Liq. 3 H226 STOT SE 3 H336
Propane 74-98-6	200-827-9 01-2119486944-21	12,5- < 20 %	Flam. Gas 1 H220 Press. Gas
Butane, n- (< 0.1 % butadiene) 106-97-8	203-448-7 01-2119474691-32	10- < 12,5 %	Flam. Gas 1 H220 Press. Gas
Acetone 67-64-1	200-662-2 01-2119471330-49	10- < 12,5 %	Flam. Liq. 2 H225 Eye Irrit. 2 H319 STOT SE 3 H336
Solvent naphtha (petroleum), light arom., <0.1% Benzene 64742-95-6	265-199-0 01-2119486773-24	5- < 10 %	Aquatic Chronic 2 H411 Flam. Liq. 3 H226 Asp. Tox. 1; Oral H304 STOT SE 3 H335 STOT SE 3 H336
Xylene - mixture of isomers 1330-20-7	215-535-7 01-2119488216-32	5- < 10 %	Asp. Tox. 1 H304 Acute Tox. 4; Inhalation H332 Acute Tox. 4; Dermal H312 Skin Irrit. 2 H315 Flam. Liq. 3 H226 Eye Irrit. 2 H319 STOT SE 3 H335 STOT RE 2 H373
Hydrocarbons, C9, aromatics 128601-23-0	01-2119455851-35	2,5- < 5 %	Flam. Liq. 3 H226 Asp. Tox. 1 H304 STOT SE 3 H335 STOT SE 3 H336 Aquatic Chronic 2 H411
Isobutane 75-28-5	200-857-2 01-2119485395-27	2,5- < 5 %	Flam. Gas 1 H220 Press. Gas
zinc oxide 1314-13-2	215-222-5 01-2119463881-32	< 2,5 %	Aquatic Acute 1 H400 Aquatic Chronic 1 H410

**For full text of the H - statements and other abbreviations see section 16 "Other information".  
Substances without classification may have community workplace exposure limits available.**

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

Inhalation:

Move to fresh air, consult doctor if complaint persists.

Skin contact:

Rinse with running water and soap. Apply replenishing cream. Change all contaminated clothing.

Eye contact:

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Ingestion:

not relevant.

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

EYE: Irritation, conjunctivitis.

Repeated exposure may cause skin dryness or cracking.

Vapors may cause drowsiness and dizziness.

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

See section: Description of first aid measures

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

**Suitable extinguishing media:**

All common extinguishing agents are suitable.

**Extinguishing media which must not be used for safety reasons:**

Water jet (solvent-containing product).

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

In case of fire toxic gases can be released.

### 5.3. Advice for firefighters

Wear protective equipment.

Wear self-contained breathing apparatus.

## SECTION 6: Accidental release measures

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

Wear protective equipment.

Avoid contact with skin and eyes.

Keep unprotected persons away.

Danger of slipping on spilled product.

### 6.2. Environmental precautions

Do not empty into drains / surface water / ground water.

Inform authorities in the event of product spillage to water courses or sewage systems.

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

Remove with liquid-absorbing material (sand, peat, sawdust).  
Dispose of contaminated material as waste according to Section 13.

**6.4. Reference to other sections**

See advice in section 8

**SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

Avoid open flames and sources of ignition.  
Ground/bond container and receiving equipment.  
Use explosion proof electric equipment.  
Use only non-sparking tools.  
Take precautionary measures against static discharge.

Hygiene measures:

Do not eat, drink or smoke while working.  
Wash hands before work breaks and after finishing work.

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

Ensure good ventilation/extraction.  
Protect from direct sunlight and temperatures above 50°C. The storage regulations for aerosols apply.  
Storage at 15 to 20°C is recommended.

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

Aerosol

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Occupational Exposure Limits

Valid for  
Great Britain

Ingredient [Regulated substance]	ppm	mg/m <sup>3</sup>	Value type	Short term exposure limit category / Remarks	Regulatory list
n-Butyl acetate 123-86-4 [BUTYL ACETATE]	200	966	Short Term Exposure Limit (STEL):		EH40 WEL
n-Butyl acetate 123-86-4 [BUTYL ACETATE]	150	724	Time Weighted Average (TWA):		EH40 WEL
Butane 106-97-8 [BUTANE]	750	1.810	Short Term Exposure Limit (STEL):		EH40 WEL
Butane 106-97-8 [BUTANE]	600	1.450	Time Weighted Average (TWA):		EH40 WEL
Acetone 67-64-1 [ACETONE]	1.500	3.620	Short Term Exposure Limit (STEL):		EH40 WEL
Acetone 67-64-1 [ACETONE]	500	1.210	Time Weighted Average (TWA):		EH40 WEL
Acetone 67-64-1 [ACETONE]	500	1.210	Time Weighted Average (TWA):	Indicative	ECTLV
Xylene 1330-20-7 [XYLENE, O-, M-, P- OR MIXED ISOMERS]			Skin designation:	Can be absorbed through the skin.	EH40 WEL
Xylene 1330-20-7 [XYLENE, O-, M-, P- OR MIXED ISOMERS]	100	441	Short Term Exposure Limit (STEL):		EH40 WEL
Xylene 1330-20-7 [XYLENE, O-, M-, P- OR MIXED ISOMERS]	50	220	Time Weighted Average (TWA):		EH40 WEL
Xylene 1330-20-7 [XYLENE, MIXED ISOMERS, PURE]	50	221	Time Weighted Average (TWA):	Indicative	ECTLV
Xylene 1330-20-7 [XYLENE, MIXED ISOMERS, PURE]	100	442	Short Term Exposure Limit (STEL):	Indicative	ECTLV

#### Occupational Exposure Limits

Valid for  
Ireland

Ingredient [Regulated substance]	ppm	mg/m <sup>3</sup>	Value type	Short term exposure limit category / Remarks	Regulatory list
n-Butyl acetate 123-86-4 [BUTYL ACETATE]	150	710	Time Weighted Average (TWA):		IR_OEL
n-Butyl acetate 123-86-4 [BUTYL ACETATE]	200	950	Short Term Exposure Limit (STEL):		IR_OEL
Propane 74-98-6 [PROPANE]	1.000		Time Weighted Average (TWA):		IR_OEL
Butane 106-97-8 [BUTANE]	1.000		Time Weighted Average (TWA):		IR_OEL
Acetone 67-64-1	500	1.210	Time Weighted Average (TWA):	Indicative OELV	IR_OEL

[ACETONE]					
Acetone 67-64-1 [ACETONE]	500	1.210	Time Weighted Average (TWA):	Indicative	ECLTV
Xylene 1330-20-7 [XYLENE, MIXED ISOMERS]	100	442	Short Term Exposure Limit (STEL):	Indicative OELV	IR_OEL
Xylene 1330-20-7 [XYLENE, MIXED ISOMERS]			Skin designation:	Can be absorbed through the skin.	IR_OEL
Xylene 1330-20-7 [XYLENE, MIXED ISOMERS]	50	221	Time Weighted Average (TWA):	Indicative OELV	IR_OEL
Xylene 1330-20-7 [XYLENE, MIXED ISOMERS, PURE]	50	221	Time Weighted Average (TWA):	Indicative	ECLTV
Xylene 1330-20-7 [XYLENE, MIXED ISOMERS, PURE]	100	442	Short Term Exposure Limit (STEL):	Indicative	ECLTV
Zinc oxide 1314-13-2 [ZINC OXIDE, FUME (RESPIRABLE FRACTION)]		2	Time Weighted Average (TWA):		IR_OEL
Zinc oxide 1314-13-2 [ZINC OXIDE, FUME (RESPIRABLE FRACTION)]		10	Short Term Exposure Limit (STEL):		IR_OEL

**Predicted No-Effect Concentration (PNEC):**

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
Zinc 7440-66-6	aqua (freshwater)					20,6 µg/L	
Zinc 7440-66-6	aqua (marine water)					6,1 µg/L	
Zinc 7440-66-6	sewage treatment plant (STP)					100 µg/L	
Zinc 7440-66-6	sediment (freshwater)				118 mg/kg		
Zinc 7440-66-6	sediment (marine water)				56,5 mg/kg		
Zinc 7440-66-6	soil				35,6 mg/kg		
n-Butyl acetate 123-86-4	aqua (freshwater)		0,18 mg/l				
n-Butyl acetate 123-86-4	aqua (marine water)		0,018 mg/l				
n-Butyl acetate 123-86-4	aqua (intermittent releases)		0,36 mg/l				
n-Butyl acetate 123-86-4	sewage treatment plant (STP)		35,6 mg/l				
n-Butyl acetate 123-86-4	sediment (freshwater)				0,981 mg/kg		
n-Butyl acetate 123-86-4	sediment (marine water)				0,0981 mg/kg		
n-Butyl acetate 123-86-4	soil				0,0903 mg/kg		
n-Butyl acetate 123-86-4	Air						
n-Butyl acetate 123-86-4	Predator						
Acetone 67-64-1	aqua (intermittent releases)		21 mg/l				
Acetone 67-64-1	sewage treatment plant (STP)		100 mg/l				
Acetone 67-64-1	sediment (freshwater)				30,4 mg/kg		
Acetone 67-64-1	sediment (marine water)				3,04 mg/kg		
Acetone 67-64-1	soil				29,5 mg/kg		
Acetone 67-64-1	aqua (freshwater)		10,6 mg/l				
Acetone 67-64-1	aqua (marine water)		1,06 mg/l				
Xylene - mixture of isomers 1330-20-7	aqua (freshwater)		0,327 mg/l				
Xylene - mixture of isomers 1330-20-7	sediment (freshwater)				12,46 mg/kg		
Xylene - mixture of isomers 1330-20-7	soil				2,31 mg/kg		
Xylene - mixture of isomers 1330-20-7	aqua (marine water)		0,327 mg/l				
Xylene - mixture of isomers 1330-20-7	aqua (intermittent releases)		0,327 mg/l				
Xylene - mixture of isomers 1330-20-7	sewage treatment plant (STP)		6,58 mg/l				
Xylene - mixture of isomers 1330-20-7	sediment (marine water)				12,46 mg/kg		
zinc oxide 1314-13-2	aqua (freshwater)		20,6 µg/l				
zinc oxide 1314-13-2	aqua (marine water)		6,1 µg/l				



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zinc oxide 1314-13-2	sewage treatment plant (STP)		100 µg/l				
zinc oxide 1314-13-2	sediment (freshwater)				117,8 mg/kg		
zinc oxide 1314-13-2	sediment (marine water)				56,5 mg/kg		
zinc oxide 1314-13-2	soil				35,6 mg/kg		

**Derived No-Effect Level (DNEL):**

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Zinc 7440-66-6	Workers	Inhalation	Long term exposure - systemic effects		5 mg/m <sup>3</sup>	
Zinc 7440-66-6	Workers	dermal	Long term exposure - systemic effects		83 mg/kg	
Zinc 7440-66-6	General population	Inhalation	Long term exposure - systemic effects		2,5 mg/m <sup>3</sup>	
Zinc 7440-66-6	General population	dermal	Long term exposure - systemic effects		83 mg/kg	
Zinc 7440-66-6	General population	oral	Long term exposure - systemic effects		0,83 mg/kg	
n-Butyl acetate 123-86-4	Workers	inhalation	Long term exposure - systemic effects		48 mg/m <sup>3</sup>	
n-Butyl acetate 123-86-4	Workers	dermal	Long term exposure - systemic effects		7 mg/kg	
n-Butyl acetate 123-86-4	General population	inhalation	Long term exposure - systemic effects		12 mg/m <sup>3</sup>	
n-Butyl acetate 123-86-4	General population	dermal	Long term exposure - systemic effects		3,4 mg/kg	
n-Butyl acetate 123-86-4	General population	oral	Long term exposure - systemic effects		3,4 mg/kg	
Acetone 67-64-1	Workers	Inhalation	Acute/short term exposure - local effects		2420 mg/m <sup>3</sup>	
Acetone 67-64-1	Workers	dermal	Long term exposure - systemic effects		186 mg/kg	
Acetone 67-64-1	Workers	Inhalation	Long term exposure - systemic effects		1210 mg/m <sup>3</sup>	
Acetone 67-64-1	General population	dermal	Long term exposure - systemic effects		62 mg/kg	
Acetone 67-64-1	General population	Inhalation	Long term exposure - systemic effects		200 mg/m <sup>3</sup>	
Acetone 67-64-1	General population	oral	Long term exposure - systemic effects		62 mg/kg	
Xylene - mixture of isomeres 1330-20-7	Workers	Inhalation	Acute/short term exposure - systemic effects		289 mg/m <sup>3</sup>	
Xylene - mixture of isomeres 1330-20-7	Workers	Inhalation	Acute/short term exposure - local effects		289 mg/m <sup>3</sup>	
Xylene - mixture of isomeres 1330-20-7	Workers	dermal	Long term exposure - systemic effects		180 mg/kg	
Xylene - mixture of isomeres 1330-20-7	Workers	Inhalation	Long term exposure - systemic effects		77 mg/m <sup>3</sup>	
Xylene - mixture of isomeres 1330-20-7	General population	Inhalation	Acute/short term exposure - systemic effects		174 mg/m <sup>3</sup>	
Xylene - mixture of isomeres 1330-20-7	General population	Inhalation	Acute/short term exposure - local effects		174 mg/m <sup>3</sup>	
Xylene - mixture of isomeres 1330-20-7	General population	dermal	Long term exposure - systemic effects		108 mg/kg	
Xylene - mixture of isomeres 1330-20-7	General population	Inhalation	Long term exposure -		14,8 mg/m <sup>3</sup>	

			systemic effects			
Xylene - mixture of isomers 1330-20-7	Workers	Inhalation	Long term exposure - local effects		77 mg/m <sup>3</sup>	
Xylene - mixture of isomers 1330-20-7	General population	oral	Long term exposure - systemic effects		1,6 mg/kg	
Hydrocarbons, C9, aromatics 128601-23-0	Workers	dermal	Long term exposure - systemic effects		25 mg/kg	
Hydrocarbons, C9, aromatics 128601-23-0	Workers	inhalation	Long term exposure - systemic effects		150 mg/m <sup>3</sup>	
Hydrocarbons, C9, aromatics 128601-23-0	General population	dermal	Long term exposure - systemic effects		11 mg/kg	
Hydrocarbons, C9, aromatics 128601-23-0	General population	inhalation	Long term exposure - systemic effects		32 mg/m <sup>3</sup>	
Hydrocarbons, C9, aromatics 128601-23-0	General population	oral	Long term exposure - systemic effects		11 mg/kg	
zinc oxide 1314-13-2	Workers	Inhalation	Long term exposure - systemic effects		5 mg/m <sup>3</sup>	
zinc oxide 1314-13-2	Workers	dermal	Long term exposure - systemic effects		83 mg/kg	
zinc oxide 1314-13-2	Workers	inhalation	Long term exposure - local effects		0,5 mg/m <sup>3</sup>	
zinc oxide 1314-13-2	General population	Inhalation	Long term exposure - systemic effects		2,5 mg/m <sup>3</sup>	
zinc oxide 1314-13-2	General population	dermal	Long term exposure - systemic effects		83 mg/kg	
zinc oxide 1314-13-2	General population	oral	Long term exposure - systemic effects		0,83 mg/kg	

**Biological Exposure Indices:**

Ingredient [Regulated substance]	Parameters	Biological specimen	Sampling time	Conc.	Basis of biol. exposure index	Remark	Additional Information
Xylene 1330-20-7 [XYLENE O-, M-, P-, OR MIXED ISOMERS]	Methylhippuric acids	Creatinine in urine	Sampling time: End of shift.		UKEH40BMG V		

**8.2. Exposure controls:**

Engineering controls:

In case of aerosol forming ensure sufficient suction and ventilation.

Respiratory protection:

In case of aerosol formation, we recommend wearing of appropriate respiratory protection equipment with ABEK P2 filter (EN 14387).

This recommendation should be matched to local conditions.

**Hand protection:**

Chemical-resistant protective gloves (EN 374). Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374): Isobutylene-isoprene rubber (IIR;  $\geq 0.7$  mm thickness) Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374): Isobutylene-isoprene rubber (IIR;  $\geq 0.7$  mm thickness) This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

**Eye protection:**

Goggles which can be tightly sealed.  
Protective eye equipment should conform to EN166.

**Skin protection:**

Wear protective equipment.  
Protective clothing that covers arms and legs.  
Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

**Advices to personal protection equipment:**

Use only personal protection that's CE-labelled according to Directive 89/686/EEC (Europe) or to Regulation No. 819 of 19 August 1994 (Norway).  
The information provided on personal protective equipment is for guidance purposes only. A full risk assessment should be conducted prior to using this product to determine the appropriate personal protective equipment to suit local conditions.  
Personal protective equipment should conform to the relevant EN standard.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Appearance	aerosol aerosol
Odor	characteristic
Odour threshold	No data available / Not applicable
pH	No data available / Not applicable
Initial boiling point	No data available / Not applicable
Flash point	-20,00 °C (-4 °F)
Decomposition temperature	No data available / Not applicable
Vapour pressure (20 °C (68 °F))	8300,0 hPa
Density (20 °C (68 °F))	1,03 g/cm <sup>3</sup>
Bulk density	No data available / Not applicable
Viscosity	No data available / Not applicable
Viscosity (kinematic)	No data available / Not applicable
Explosive properties	No data available / Not applicable
Solubility (qualitative) (20 °C (68 °F); Solvent: Water)	Not miscible or difficult to mix
Solidification temperature	No data available / Not applicable
Melting point	No data available / Not applicable
Flammability	No data available / Not applicable
Auto-ignition temperature	No data available / Not applicable
Explosive limits	
lower	1,20 %(V)
upper	13,0 %(V)
Partition coefficient: n-octanol/water	No data available / Not applicable
Evaporation rate	No data available / Not applicable
Vapor density	No data available / Not applicable
Oxidising properties	No data available / Not applicable

**9.2. Other information**

Ignition temperature 365 °C (689 °F)

**SECTION 10: Stability and reactivity****10.1. Reactivity**

Strong oxidizing agents.

**10.2. Chemical stability**

Stable under recommended storage conditions.

**10.3. Possibility of hazardous reactions**

See section reactivity

**10.4. Conditions to avoid**

Temperatures over appr. 50 °C

Heat, flames, sparks and other sources of ignition.

**10.5. Incompatible materials**

See section reactivity.

**10.6. Hazardous decomposition products**

None if used for intended purpose.

**SECTION 11: Toxicological information****11.1. Information on toxicological effects****General toxicological information:**

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation (EC) No 1272/2008. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

**STOT-single exposure:**

May cause drowsiness or dizziness.

**Skin irritation:**

Repeated exposure may cause skin dryness or cracking.

**Eye irritation:**

Causes serious eye irritation.

**Acute oral toxicity:**

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
zinc powder - zinc dust (stabilized) 7440-66-6	LD50	> 2.000 mg/kg	oral		rat	OECD Guideline 401 (Acute Oral Toxicity)
n-Butyl acetate 123-86-4	LD50	> 8.800 mg/kg	oral		rat	BASF Test
Acetone 67-64-1	LD50	5.800 mg/kg	oral		rat	not specified
Xylene - mixture of isomeres 1330-20-7	LD50	3.523 mg/kg	oral		rat	EU Method B.1 (Acute Toxicity (Oral))
Hydrocarbons, C9, aromatics 128601-23-0	LD50	6.984 mg/kg	oral		rat	Limit Test
zinc oxide 1314-13-2	LD50	> 5.000 mg/kg	oral		rat	OECD Guideline 401 (Acute Oral Toxicity)

**Acute inhalative toxicity:**

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
n-Butyl acetate 123-86-4	LC50	> 23,4 mg/l		4 h	rat	OECD Guideline 403 (Acute Inhalation Toxicity)
Propane 74-98-6	LC50	> 800000 ppm	gas	15 min	rat	not specified
Butane, n- (< 0.1 % butadiene) 106-97-8	LC50	274200 ppm	gas	4 h	rat	not specified
Acetone 67-64-1	LC50	76 mg/l		4 h	rat	not specified
Xylene - mixture of isomeres 1330-20-7	LC50	11 mg/l	Vapor.	4 h	rat	not specified
Isobutane 75-28-5	LC50	260200 ppm	gas	4 h	mouse	not specified
zinc oxide 1314-13-2	LC50	> 5,7 mg/l	aerosol	4 h	rat	OECD Guideline 403 (Acute Inhalation Toxicity)

**Acute dermal toxicity:**

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
n-Butyl acetate 123-86-4	LD50	> 14.112 mg/kg	dermal		rabbit	OECD Guideline 402 (Acute Dermal Toxicity)
Acetone 67-64-1	LD50	> 15.688 mg/kg	dermal		rabbit	Draize Test
Hydrocarbons, C9, aromatics 128601-23-0	LD50	> 3.160 mg/kg	dermal		rabbit	OECD Guideline 402 (Acute Dermal Toxicity)
zinc oxide 1314-13-2	LD50	> 2.000 mg/kg	dermal		rat	OECD Guideline 402 (Acute Dermal Toxicity)

**Skin corrosion/irritation:**

Hazardous components CAS-No.	Result	Exposure time	Species	Method
zinc powder - zinc dust (stabilized) 7440-66-6	not irritating	24 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
n-Butyl acetate 123-86-4	not irritating		rabbit	BASF Test
Acetone 67-64-1	not irritating		guinea pig	not specified
Xylene - mixture of isomeres 1330-20-7	moderately irritating		rabbit	not specified
zinc oxide 1314-13-2	not irritating		rabbit	not specified

**Serious eye damage/irritation:**

Hazardous components CAS-No.	Result	Exposure time	Species	Method
zinc powder - zinc dust (stabilized) 7440-66-6	slightly irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
n-Butyl acetate 123-86-4	not irritating		rabbit	BASF Test
Acetone 67-64-1	irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Xylene - mixture of isomeres 1330-20-7	slightly irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
zinc oxide 1314-13-2	slightly irritating		rabbit	not specified

**Respiratory or skin sensitization:**

<b>Hazardous components CAS-No.</b>	<b>Result</b>	<b>Test type</b>	<b>Species</b>	<b>Method</b>
zinc powder - zinc dust (stabilized) 7440-66-6	not sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)
n-Butyl acetate 123-86-4	not sensitising	Guinea pig maximisation test	guinea pig	not specified
Acetone 67-64-1	not sensitising	Guinea pig maximisation test	guinea pig	not specified
Xylene - mixture of isomers 1330-20-7	not sensitising	Mouse local lymphnode assay (LLNA)	mouse	OECD Guideline 429 (Skin Sensitisation: Local Lymph Node Assay)
zinc oxide 1314-13-2	not sensitising	Guinea pig maximisation test	guinea pig	OECD Guideline 406 (Skin Sensitisation)

**Germ cell mutagenicity:**

<b>Hazardous components CAS-No.</b>	<b>Result</b>	<b>Type of study / Route of administration</b>	<b>Metabolic activation / Exposure time</b>	<b>Species</b>	<b>Method</b>
zinc powder - zinc dust (stabilized) 7440-66-6	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
	negative	mammalian cell gene mutation assay	without		not specified
zinc powder - zinc dust (stabilized) 7440-66-6	negative	intraperitoneal		mouse	OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)
n-Butyl acetate 123-86-4	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		Ames Test
Propane 74-98-6	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Propane 74-98-6	negative			Drosophila melanogaster	not specified
Butane, n- (< 0.1 % butadiene) 106-97-8	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Butane, n- (< 0.1 % butadiene) 106-97-8	negative			Drosophila melanogaster	not specified
Acetone 67-64-1	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
	negative	mammalian cell gene mutation assay	without		OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Acetone 67-64-1	negative	oral: drinking water		mouse	not specified
Xylene - mixture of isomers 1330-20-7	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
	negative	in vitro mammalian chromosome aberration test	with and without		EU Method B.10 (Mutagenicity)
	negative	sister chromatid exchange assay in mammalian cells	with and without		EU Method B.19 (Sister Chromatid Exchange Assay In Vitro)
Xylene - mixture of isomers 1330-20-7	negative	intraperitoneal		rat	OECD Guideline 478 (Genetic Toxicology: Rodent Dominant Lethal Test)
Isobutane 75-28-5	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
	negative	in vitro mammalian chromosome aberration test	with and without		OECD Guideline 473 (In vitro Mammalian Chromosome Aberration Test)
Isobutane 75-28-5	negative			Drosophila melanogaster	not specified
zinc oxide 1314-13-2	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		not specified



**Carcinogenicity:**

Hazardous components CAS-No.	Result	Species	Sex	Exposure time Frequency of treatment	Route of application	Method
zinc powder - zinc dust (stabilized) 7440-66-6	not carcinogenic	mouse	male/female	1 y daily	oral: drinking water	not specified
Acetone 67-64-1	not carcinogenic	mouse	female	424 d 3 times per week	dermal	not specified
Xylene - mixture of isomeres 1330-20-7	not carcinogenic	rat	male/female	103 w 5 d/w	oral: gavage	EU Method B.32 (Carcinogenicity Test)

**Reproductive toxicity:**

Hazardous substances CAS-No.	Result / Classification	Species	Exposure time	Species	Method
zinc powder - zinc dust (stabilized) 7440-66-6	NOAEL F1 = 7,2 mg/kg	Two generation study oral: gavage		rat	OECD Guideline 416 (Two- Generation Reproduction Toxicity Study)
Butane, n- (< 0.1 % butadiene) 106-97-8	NOAEL P = 21,4 mg/l NOAEL F1 = 21,4 mg/l			rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)

**Repeated dose toxicity**

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
zinc powder - zinc dust (stabilized) 7440-66-6	NOAEL=> 104 mg/kg	oral: feed	13 w daily	mouse	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
Propane 74-98-6		inhalation: gas	28 d	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
Butane, n- (< 0.1 % butadiene) 106-97-8		inhalation: gas	28 d	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
Acetone 67-64-1	NOAEL=900 mg/kg	oral: drinking water	13 w daily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
Xylene - mixture of isomeres 1330-20-7	NOAEL=150 mg/kg	oral: gavage	90 d daily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
Xylene - mixture of isomeres 1330-20-7	LOAEL=150 mg/kg	oral: gavage	90 d daily	rat	OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
Isobutane 75-28-5		inhalation: gas	28 d	rat	OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)

**SECTION 12: Ecological information****General ecological information:**

The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation (EC) No 1272/2008. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.  
Do not empty into drains, soil or bodies of water.

**12.1. Toxicity**

**Ecotoxicity:**

Toxic to aquatic life with long lasting effects.

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
zinc powder - zinc dust (stabilized) 7440-66-6	LC50	0,8 mg/l	Fish	96 h	Salmo gairdneri (new name: Oncorhynchus mykiss)	OECD Guideline 203 (Fish, Acute Toxicity Test)
n-Butyl acetate 123-86-4	LC50	18 mg/l	Fish	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
n-Butyl acetate 123-86-4	EC50	44 mg/l	Daphnia	48 h	Daphnia sp.	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
n-Butyl acetate 123-86-4	EC50	674,7 mg/l	Algae	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
	EC10	295,5 mg/l	Algae	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
n-Butyl acetate 123-86-4	IC50	356 mg/l	Bacteria	40 h	Ciliate (Tetrahymena pyriformis)	other guideline:
n-Butyl acetate 123-86-4	NOEC	23,2 mg/l	chronic Daphnia	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test) not specified
Butane, n- (< 0.1 % butadiene) 106-97-8	LC50	27,98 mg/l	Fish	96 h		not specified
Butane, n- (< 0.1 % butadiene) 106-97-8	EC50	14,22 mg/l	Daphnia	48 h		not specified
Butane, n- (< 0.1 % butadiene) 106-97-8	EC50	7,71 mg/l	Algae	96 h		not specified
Acetone 67-64-1	LC50	8.120 mg/l	Fish	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
Acetone 67-64-1	EC50	8.800 mg/l	Daphnia	48 h	Daphnia pulex	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Acetone 67-64-1	NOEC	530 mg/l	Algae	8 d	Microcystis aeruginosa	DIN 38412-09
Acetone 67-64-1	EC10	1.000 mg/l	Bacteria	30 min	Pseudomonas putida	DIN 38412, part 27 (Bacterial oxygen consumption test)
Acetone 67-64-1	NOEC	2.212 mg/l	chronic Daphnia	28 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
Solvent naphtha (petroleum), light arom., <0.1% Benzene 64742-95-6	LC50	18 mg/l	Fish	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Solvent naphtha (petroleum), light arom., <0.1% Benzene 64742-95-6	EC50	21,3 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Solvent naphtha (petroleum), light arom., <0.1% Benzene 64742-95-6	EC50	> 1 - 10 mg/l	Algae			OECD Guideline 201 (Alga, Growth Inhibition Test)
Xylene - mixture of isomeres 1330-20-7	LC50	86 mg/l	Fish		Leuciscus idus	OECD Guideline 203 (Fish, Acute Toxicity Test)
Xylene - mixture of isomeres 1330-20-7	EC50	3,1 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Xylene - mixture of isomeres 1330-20-7	EC50	2,2 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Xylene - mixture of isomeres 1330-20-7	EC 50	> 1 - 10 mg/l	Bacteria			not specified
Hydrocarbons, C9, aromatics 128601-23-0	LC50	9,2 mg/l	Fish	96 h	Oncorhynchus mykiss	OECD Guideline 203 (Fish, Acute Toxicity Test)
Hydrocarbons, C9, aromatics 128601-23-0	EC50	3,2 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation

Hydrocarbons, C9, aromatics 128601-23-0	NOEC	1 mg/l	Algae	72 h	Pseudokirchnerella subcapitata	Test) OECD Guideline 201 (Alga, Growth Inhibition Test)
	EC50	2,9 mg/l	Algae	72 h	Pseudokirchnerella subcapitata	OECD Guideline 201 (Alga, Growth Inhibition Test) not specified
Isobutane 75-28-5	EC50	7,71 mg/l	Algae	96 h		
zinc oxide 1314-13-2	LC50	> 1.000 mg/l	Fish		Leuciscus idus	OECD Guideline 203 (Fish, Acute Toxicity Test)
zinc oxide 1314-13-2	NOEC	0,017 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test)
	EC50	0,17 mg/l	Algae	72 h	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)	OECD Guideline 201 (Alga, Growth Inhibition Test) not specified
zinc oxide 1314-13-2	NOEC	500 mg/l	Bacteria			

## 12.2. Persistence and degradability

Hazardous components CAS-No.	Result	Route of application	Degradability	Method
n-Butyl acetate 123-86-4	readily biodegradable	aerobic	83 %	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Acetone 67-64-1	readily biodegradable	aerobic	81 - 92 %	EU Method C.4-E (Determination of the "Ready" Biodegradability) Closed Bottle Test)
Solvent naphtha (petroleum), light arom., <0.1% Benzene 64742-95-6	readily biodegradable	aerobic	78 %	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
Xylene - mixture of isomeres 1330-20-7	readily biodegradable	aerobic	> 60 %	OECD 301 A - F
Hydrocarbons, C9, aromatics 128601-23-0		aerobic	78 %	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)

## 12.3. Bioaccumulative potential / 12.4. Mobility in soil

Hazardous components CAS-No.	LogPow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
n-Butyl acetate 123-86-4	2,3				25 °C	OECD Guideline 117 (Partition Coefficient (n- octanol / water), HPLC Method)
Acetone 67-64-1	-0,24					OECD Guideline 107 (Partition Coefficient (n- octanol / water), Shake Flask Method)
Solvent naphtha (petroleum), light arom., <0.1% Benzene 64742-95-6	> 3					OECD Guideline 107 (Partition Coefficient (n- octanol / water), Shake Flask Method)
Xylene - mixture of isomeres 1330-20-7		8,5	7 d	Oncorhynchus mykiss		not specified
Xylene - mixture of isomeres 1330-20-7	3,12					not specified
Isobutane 75-28-5	2,88				20 °C	OECD Guideline 107 (Partition Coefficient (n- octanol / water), Shake Flask Method)

## 12.5. Results of PBT and vPvB assessment

Hazardous components CAS-No.	PBT/vPvB

zinc powder - zinc dust (stabilized) 7440-66-6	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
n-Butyl acetate 123-86-4	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Propane 74-98-6	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Butane, n- (< 0.1 % butadiene) 106-97-8	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Acetone 67-64-1	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Xylene - mixture of isomers 1330-20-7	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Isobutane 75-28-5	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
zinc oxide 1314-13-2	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

#### 12.6. Other adverse effects

No data available.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Product disposal:

In consultation with the responsible local authority, must be subjected to special treatment.

Waste code

080111

150104

Waste code

The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you.

**SECTION 14: Transport information****14.1. UN number**

ADR	1950
RID	1950
ADN	1950
IMDG	1950
IATA	1950

**14.2. UN proper shipping name**

ADR	AEROSOLS
RID	AEROSOLS
ADN	AEROSOLS
IMDG	AEROSOLS (Zinc powder)
IATA	Aerosols, flammable

**14.3. Transport hazard class(es)**

ADR	2.1
RID	2.1
ADN	2.1
IMDG	2.1
IATA	2.1

**14.4. Packing group**

ADR  
RID  
ADN  
IMDG  
IATA

**14.5. Environmental hazards**

ADR	Environmentally Hazardous
RID	Environmentally Hazardous
ADN	Environmentally Hazardous
IMDG	Marine pollutant
IATA	not applicable

**14.6. Special precautions for user**

ADR	not applicable Tunnelcode: (D)
RID	not applicable
ADN	not applicable
IMDG	IMDG-Code: Segregation group 7- Heavy metals and their salts
IATA	not applicable

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

not applicable

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

VOC content 69,8 %  
(VOCV 814.018 VOC regulation  
CH)

**VOC Paints and Varnishes (EU):**

Regulatory Basis:	Directive 2004/42/EC
Product (sub)category:	Special finishes
Phase I (from 1.1.2007):	840 g/l
max. VOC content:	719,1 g/l

**15.2. Chemical safety assessment**

A chemical safety assessment has not been carried out.

**SECTION 16: Other information**

The labelling of the product is indicated in Section 2. The full text of all abbreviations indicated by codes in this safety data sheet are as follows:

- H220 Extremely flammable gas.
- H225 Highly flammable liquid and vapor.
- H226 Flammable liquid and vapor.
- H304 May be fatal if swallowed and enters airways.
- H312 Harmful in contact with skin.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H335 May cause respiratory irritation.
- H336 May cause drowsiness or dizziness.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.
- H411 Toxic to aquatic life with long lasting effects.

**Further information:**

This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

**Relevant changes in this safety data sheet are indicated by vertical lines at the left margin in the body of this document. Corresponding text is displayed in a different color on shadowed fields.**