



## Safety Data Sheet according to Regulation (EC) No1907/2006

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SDS No. : 364093  
V001.4

BONDERITE L-GP 386 ACHESON known as DAG 386

Revision: 19.03.2014  
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### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

BONDERITE L-GP 386 ACHESON known as DAG 386

#### Contains:

Methanol

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

Intended use:  
Dry film lubricant

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

Henkel AG & Co. KGaA  
Henkelstr. 67  
40191 Düsseldorf

Germany

Phone: +49 (211) 797-0

ua-productsafety.de@henkel.com

#### 1.4. Emergency telephone number

The Henkel information service also provides an around-the-clock telephone service on phone no.+49-(0)211-797-3350 for exceptional cases.

### SECTION 2: Hazards identification

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

##### Classification (CLP):

Flammable liquids	Category 2
H225 Highly flammable liquid and vapor.	
Serious eye irritation	Category 2
H319 Causes serious eye irritation.	
Specific target organ toxicity - single exposure	Category 2
H371 May cause damage to organs.	

**Classification (DPD):**

- F - Highly flammable
- R11 Highly flammable.
- Xn - Harmful
- R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
- Xn - Harmful
- R68/20/21/22 Harmful: possible risk of irreversible effects through inhalation, in contact with skin and if swallowed.

**2.2. Label elements**

**Label elements (CLP):**

<b>Hazard pictogram:</b>	
<b>Signal word:</b>	Danger
<b>Hazard statement:</b>	H225 Highly flammable liquid and vapor. H371 May cause damage to organs. H319 Causes serious eye irritation.
<b>Precautionary statement:</b>	P260 Do not breathe vapours. P280 Wear protective gloves/protective clothing/eye protection/face protection.
<b>Precautionary statement: Prevention</b>	P201 Obtain special instructions before use. P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
<b>Precautionary statement: Response</b>	P370+P378 In case of fire: Use CO2, dry chemical, or foam for extinction.

**Label elements (DPD):**

- F - Highly flammable
- Xn - Harmful



**Risk phrases:**

- R11 Highly flammable.
- R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
- R68/20/21/22 Harmful: possible risk of irreversible effects through inhalation, in contact with skin and if swallowed.

**Safety phrases:**

- S16 Keep away from sources of ignition - No smoking.
- S23 Do not breathe vapour/spray.
- S36/37 Wear suitable protective clothing and gloves.
- S38 In case of insufficient ventilation, wear suitable respiratory equipment.

**Contains:**

Methanol

**2.3. Other hazards**

None if used properly.

**SECTION 3: Composition/information on ingredients****Base substances of preparation:**Pigment  
Solvent mixture**Declaration of the ingredients according to CLP (EC) No 1272/2008:**

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Ethanol 64-17-5	200-578-6 01-2119457610-43	> 50 %	Serious eye irritation 2 H319 Flammable liquids 2 H225
n-Butyl acetate 123-86-4	204-658-1 01-2119485493-29	1- 5 %	Flammable liquids 3 H226 Specific target organ toxicity - single exposure 3 H336
Methanol 67-56-1	200-659-6 01-2119433307-44	1- 5 %	Flammable liquids 2 H225 Specific target organ toxicity - single exposure 1 H370 Acute toxicity 3; Inhalation H331 Acute toxicity 3; Dermal H311 Acute toxicity 3; Oral H301
Acetone 67-64-1	200-662-2 01-2119471330-49	1- 5 %	Flammable liquids 2 H225 Serious eye irritation 2 H319 Specific target organ toxicity - single exposure 3 H336

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.

**Declaration of ingredients according to DPD (EC) No 1999/45:**

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Ethanol 64-17-5	200-578-6 01-2119457610-43	> 50 %	F - Highly flammable; R11
n-Butyl acetate 123-86-4	204-658-1 01-2119485493-29	1 - 5 %	R10 R67 R66
Methanol 67-56-1	200-659-6 01-2119433307-44	1 - 5 %	F - Highly flammable; R11 T - Toxic; R23/24/25, R39/23/24/25
Acetone 67-64-1	200-662-2 01-2119471330-49	1 - 5 %	F - Highly flammable; R11 Xi - Irritant; R36 R66 R67

For full text of the R-Phrases indicated by codes 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:

Fresh air, oxygen supply, warmth; seek specialist medical attention.

#### Skin contact:

Rinse with running water and soap.  
In case of adverse health effects seek medical advice.

#### Eye contact:

Rinse immediately with plenty of running water (for 10 minutes), seek medical attention from a specialist.

#### Ingestion:

Rinse mouth, drink 1-2 glasses of water, do not induce vomiting, consult a doctor.

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

EYE: Irritation, conjunctivitis.

### 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:

Carbon dioxide, foam, powder  
Fine water spray

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

High pressure waterjet

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

Formation of toxic gases is possible during heating or in fires.

### 5.3. Advice for firefighters

Wear protective equipment.  
Wear self-contained breathing apparatus.

#### Additional information:

Cool endangered containers with water spray jet.

## SECTION 6: Accidental release measures

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

Avoid skin and eye contact.  
Danger of slipping on spilled product.

### 6.2. Environmental precautions

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

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

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, 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**

- Ensure that workrooms are adequately ventilated.
- Avoid skin and eye contact.
- See advice in section 8
- Avoid open flames and sources of ignition.
- Take measures to prevent the build-up of electrostatic charges.

Hygiene measures:

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

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

- Ensure good ventilation/extraction.
- Temperatures between + 5 °C and + 30 °C

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

- Dry film lubricant

<b>SECTION 8: Exposure controls/personal protection</b>
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**8.1. Control parameters****Occupational Exposure Limits**Valid for  
Germany

Ingredient	ppm	mg/m <sup>3</sup>	Type	Category	Remarks
Ethanol 64-17-5	500	960	AGW:	2 If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
Ethanol 64-17-5			Short Term Exposure Classification:	Category II: substances with a resorptive effect.	TRGS 900
Graphite 7782-42-5			Short Term Exposure Classification:	Category II: substances with a resorptive effect.	TRGS 900
Graphite 7782-42-5			Short Term Exposure Classification:	Category II: substances with a resorptive effect.	TRGS 900
Graphite 7782-42-5		10	AGW:	2	TRGS 900
Graphite 7782-42-5		3	AGW:	2	TRGS 900
n-Butyl acetate 123-86-4	62	300	AGW:	2 If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
n-Butyl acetate 123-86-4			Short Term Exposure Classification:	Category II: substances with a resorptive effect.	TRGS 900
METHANOL 67-56-1	200	260	Time Weighted Average (TWA):	Indicative	ECLTV
Methanol 67-56-1			Skin designation:	Can be absorbed through the skin.	TRGS 900
Methanol 67-56-1	200	270	AGW:	4 If the AGW and BGW values are complied with, there should be no risk of reproductive damage (see Number 2.7).	TRGS 900
Methanol 67-56-1			Short Term Exposure Classification:	Category II: substances with a resorptive effect.	TRGS 900
ACETONE 67-64-1	500	1.210	Time Weighted Average (TWA):	Indicative	ECLTV
Acetone 67-64-1	500	1.200	AGW:	2	TRGS 900
Acetone 67-64-1			Short Term Exposure Classification:	Category I: substances for which the localized effect has an assigned OEL or for substances with a sensitizing effect in respiratory passages.	TRGS 900

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

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
Ethanol 64-17-5	aqua (freshwater)					0,96 mg/L	
Ethanol 64-17-5	aqua (marine water)					0,79 mg/L	
Ethanol 64-17-5	aqua (intermittent releases)					2,75 mg/L	
Ethanol 64-17-5	sediment (freshwater)				3,6 mg/kg		
Ethanol 64-17-5	soil				0,63 mg/kg		
Ethanol 64-17-5	STP					580 mg/L	
Ethanol 64-17-5	oral				720 mg/kg		
Ethanol 64-17-5	sediment (marine water)				2,9 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	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		
Methanol 67-56-1	aqua (freshwater)					154 mg/L	
Methanol 67-56-1	sediment (freshwater)				570,4 mg/kg		
Methanol 67-56-1	aqua (marine water)					15,4 mg/L	
Methanol 67-56-1	soil				23,5 mg/kg		
Methanol 67-56-1	STP					100 mg/L	
Acetone 67-64-1	aqua (intermittent releases)					21 mg/L	
Acetone 67-64-1	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	

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

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Ethanol 64-17-5	worker	inhalation	Acute/short term exposure - local effects		1900 mg/m <sup>3</sup>	
Ethanol 64-17-5	worker	Dermal	Long term exposure - systemic effects		343 mg/kg bw/day	
Ethanol 64-17-5	worker	inhalation	Long term exposure - systemic effects		950 mg/m <sup>3</sup>	
Ethanol 64-17-5	general population	inhalation	Acute/short term exposure - local effects		950 mg/m <sup>3</sup>	
Ethanol 64-17-5	general population	Dermal	Long term exposure - systemic effects		206 mg/kg bw/day	
Ethanol 64-17-5	general population	inhalation	Long term exposure - systemic effects		114 mg/m <sup>3</sup>	
Ethanol 64-17-5	general population	oral	Long term exposure - systemic effects		87 mg/kg bw/day	
n-Butyl acetate 123-86-4	worker	inhalation	Acute/short term exposure - systemic effects		960 mg/m <sup>3</sup>	
n-Butyl acetate 123-86-4	worker	inhalation	Acute/short term exposure - local effects		960 mg/m <sup>3</sup>	
n-Butyl acetate 123-86-4	worker	inhalation	Long term exposure - systemic effects		480 mg/m <sup>3</sup>	
n-Butyl acetate 123-86-4	worker	inhalation	Long term exposure - local effects		480 mg/m <sup>3</sup>	
n-Butyl acetate 123-86-4	general population	inhalation	Acute/short term exposure - systemic effects		859,7 mg/m <sup>3</sup>	
n-Butyl acetate 123-86-4	general population	inhalation	Acute/short term exposure - local effects		859,7 mg/m <sup>3</sup>	
n-Butyl acetate 123-86-4	general population	inhalation	Long term exposure - systemic effects		102,34 mg/m <sup>3</sup>	
n-Butyl acetate 123-86-4	general population	inhalation	Long term exposure - local effects		102,34 mg/m <sup>3</sup>	
Methanol 67-56-1	worker	Dermal	Acute/short term exposure - systemic effects		40 mg/kg bw/day	
Methanol 67-56-1	worker	inhalation	Acute/short term exposure - systemic effects		260 mg/m <sup>3</sup>	
Methanol 67-56-1	worker	inhalation	Acute/short term exposure - local effects		260 mg/m <sup>3</sup>	
Methanol 67-56-1	worker	Dermal	Long term exposure - systemic effects		40 mg/kg bw/day	
Methanol 67-56-1	worker	inhalation	Long term exposure - systemic effects		260 mg/m <sup>3</sup>	
Methanol 67-56-1	worker	inhalation	Long term exposure - local effects		260 mg/m <sup>3</sup>	
Methanol 67-56-1	general population	Dermal	Acute/short term exposure - systemic effects		8 mg/kg bw/day	
Methanol 67-56-1	general population	inhalation	Acute/short term exposure - systemic effects		50 mg/m <sup>3</sup>	
Methanol 67-56-1	general population	oral	Acute/short term exposure -		8 mg/kg bw/day	

			systemic effects			
Methanol 67-56-1	general population	inhalation	Acute/short term exposure - local effects		50 mg/m <sup>3</sup>	
Methanol 67-56-1	general population	Dermal	Long term exposure - systemic effects		8 mg/kg bw/day	
Methanol 67-56-1	general population	inhalation	Long term exposure - systemic effects		50 mg/m <sup>3</sup>	
Methanol 67-56-1	general population	oral	Long term exposure - systemic effects		8 mg/kg bw/day	
Methanol 67-56-1	general population	inhalation	Long term exposure - local effects		50 mg/m <sup>3</sup>	
Acetone 67-64-1	worker	inhalation	Acute/short term exposure - local effects		2420 mg/m <sup>3</sup>	
Acetone 67-64-1	worker	Dermal	Long term exposure - systemic effects		186 mg/kg bw/day	
Acetone 67-64-1	worker	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 bw/day	
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 bw/day	

**Biological Exposure Indices:**

Ingredient	Parameters	Biological specimen	Sampling time	Conc.	Basis of biol. exposure index	Remark	Additional Information
Methanol 67-56-1	methanol	Urine	Sampling time: End of shift at end of work week.	30 mg/l	DE BAT		
Acetone 67-64-1	acetone	Urine	Sampling time: End of shift.	80 mg/l	DE BAT		
Acetone 67-64-1	acetone	Urine	Sampling time: End of shift.	80 mg/l	DE BAT		

**8.2. Exposure controls:**

## Engineering controls:

Ensure good ventilation/extraction.

## Respiratory protection:

In case of aerosol formation, we recommend wearing of appropriate respiratory protection equipment with ABEK P2 filter. 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): Fluorinated rubber (FKM;  $\geq$  0.7 mm thickness) Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374): Fluorinated rubber (FKM;  $\geq$  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.

Skin protection:  
Wear suitable protective clothing.

## SECTION 9: Physical and chemical properties

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

Appearance	liquid liquid black
Odor	Solvent
Odour threshold	No data available / Not applicable
pH	Not applicable
Initial boiling point	80 °C (176 °F)
Flash point	12 °C (53.6 °F); no method
Decomposition temperature	No data available / Not applicable
Vapour pressure (20 °C (68 °F))	58,5 mbar
Density (20 °C (68 °F))	0,97 g/cm <sup>3</sup>
Bulk density	No data available / Not applicable
Viscosity (Brookfield; Instrument: RVT; 20 °C (68 °F); speed of rotation: 20 min <sup>-1</sup> )	100 - 400 mPa.s
Viscosity (kinematic)	No data available / Not applicable
Explosive properties	No data available / Not applicable
Solubility (qualitative) (Solvent: Water)	Partially miscible
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	3,4 %(V)
upper	19,0 %(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

No data available / Not applicable

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Reaction with strong oxidants.

### 10.2. Chemical stability

Stable under recommended storage conditions.

### 10.3. Possibility of hazardous reactions

See section reactivity

### 10.4. Conditions to avoid

No decomposition if used according to specifications.

### 10.5. Incompatible materials

See section reactivity

### 10.6. Hazardous decomposition products

None if used for intended purpose.  
In case of fire toxic gases can be released.

**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 1272/2008/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

**STOT-single exposure:**

May cause damage to organs.

**Eye irritation:**

Causes serious eye irritation.

**Acute oral toxicity:**

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Ethanol 64-17-5	LD50	13.700 mg/kg	oral		rat	
n-Butyl acetate 123-86-4	LD50	> 8.800 mg/kg	oral		rat	
Methanol 67-56-1	Acute toxicity estimate (ATE)	100 mg/kg	oral			Expert judgement
Acetone 67-64-1	LD50	5.800 mg/kg	oral		rat	

**Acute inhalative toxicity:**

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Ethanol 64-17-5	LC50	124,7 mg/l	inhalation	4 h	rat	
n-Butyl acetate 123-86-4	LC50	> 23,4 mg/l	inhalation	4 h	rat	OECD Guideline 403 (Acute Inhalation Toxicity)
Methanol 67-56-1	Acute toxicity estimate (ATE)	3 mg/l	inhalation			Expert judgement
Methanol 67-56-1	LC50	87,5 mg/l		6 h	rat	
Acetone 67-64-1	LC50	76 mg/l	inhalation	4 h	rat	

**Acute dermal toxicity:**

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Ethanol 64-17-5	LDLo	20.000 mg/kg	dermal		rabbit	
Acetone 67-64-1	LD50	> 15.688 mg/kg	dermal		rabbit	

**Skin corrosion/irritation:**

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Ethanol 64-17-5	not irritating		rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
n-Butyl acetate 123-86-4	not irritating		rabbit	
Methanol 67-56-1	not irritating		rabbit	

**Serious eye damage/irritation:**

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Ethanol 64-17-5	Category II		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
n-Butyl acetate 123-86-4	not irritating		rabbit	
Methanol 67-56-1	not irritating		rabbit	
Acetone 67-64-1	irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)

**Respiratory or skin sensitization:**

Hazardous components CAS-No.	Result	Test type	Species	Method
Ethanol 64-17-5	not sensitising	Guinea pig maximisation test	guinea pig	
n-Butyl acetate 123-86-4	not sensitising	Guinea pig maximisation test	guinea pig	
Methanol 67-56-1	not sensitising	Guinea pig maximisation test	guinea pig	

**Germ cell mutagenicity:**

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Ethanol 64-17-5	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	without		
n-Butyl acetate 123-86-4	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		
Acetone 67-64-1	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)

**Repeated dose toxicity**

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
Methanol 67-56-1	NOAEL=6,63 mg/l	inhalation	4 weeks 6 h/d, 5 d/w	rat	
Acetone 67-64-1	NOAEL=2500 ppm	oral: drinking water	13 weeks	rat	

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

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

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 1272/2008/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

**Other adverse effects:**

The product contains organic solvents which are insoluble in water. According to the requirements of the ATV regulations for the discharge of wastewater from commercial and industrial plant, organic solvents which are immiscible with water can only be discharged to an extent which corresponds to their solubility in water. The local discharge regulations take precedence.

**12.1. Toxicity**

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
Ethanol 64-17-5	LC50	14,2 g/l	Fish	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
Ethanol 64-17-5	EC50	9.268 - 14.221 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Ethanol 64-17-5	EC50	> 5.000 mg/l	Algae	7 d	Scenedesmus quadricauda	OECD Guideline 201 (Alga, Growth Inhibition Test)
Ethanol 64-17-5	NOEC	2 mg/l	chronic Daphnia Fish	10 d		
n-Butyl acetate 123-86-4	LC50	62 mg/l	Fish	96 h	Leuciscus idus	DIN 38412-15
n-Butyl acetate 123-86-4	EC50	72,8 mg/l	Daphnia	24 h	Daphnia magna	
n-Butyl acetate 123-86-4	EC10	295,5 mg/l	Algae	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
	EC50	674,7 mg/l	Algae	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Methanol 67-56-1	LC50	> 1.000 mg/l	Fish	48 h	Leuciscus idus	DIN 38412-15
	NOEC	7.900 mg/l	Fish	200 h	Oryzias latipes	OECD 210 (fish early lite stage toxicity test)
Methanol 67-56-1	EC50	> 10.000 mg/l	Daphnia	48 h	Daphnia magna	
Methanol 67-56-1	EC50	28,44 g/l	Algae		Chlorella pyrenoidosa	OECD Guideline 201 (Alga, Growth Inhibition Test)
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	6.098,4 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

**12.2. Persistence and degradability**

Hazardous components CAS-No.	Result	Route of application	Degradability	Method

Ethanol 64-17-5	readily biodegradable	aerobic	80 - 85 %	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
n-Butyl acetate 123-86-4	readily biodegradable	aerobic	98 %	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)
Methanol 67-56-1	readily biodegradable	aerobic	82 - 92 %	EU Method C.4-E (Determination of the "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)

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

Hazardous components CAS-No.	LogKow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
Ethanol 64-17-5	-0,31					
n-Butyl acetate 123-86-4	1,81				23 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
Methanol 67-56-1	-0,77					
Acetone 67-64-1	0,24					

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

Hazardous components CAS-No.	PBT/vPvB
Ethanol 64-17-5	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.
Methanol 67-56-1	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.

**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

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.

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

ADR	1263
RID	1263
ADNR	1263
IMDG	1263
IATA	1263

**14.2. UN proper shipping name**

ADR	PAINT
RID	PAINT
ADNR	PAINT
IMDG	PAINT
IATA	Paint

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

ADR	3
RID	3
ADNR	3
IMDG	3
IATA	3

**14.4. Packaging group**

ADR	II
RID	II
ADNR	II
IMDG	II
IATA	II

**14.5. Environmental hazards**

ADR	not applicable
RID	not applicable
ADNR	not applicable
IMDG	not applicable
IATA	not applicable

**14.6. Special precautions for user**

ADR	Special provision 640D Tunnelcode: (D/E)
RID	Special provision 640D
ADNR	Special provision 640D
IMDG	not applicable
IATA	not applicable

**14.7. Transport in bulk according to Annex II of MARPOL 73/78 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 70 %  
(1999/13/EC)**15.2. Chemical safety assessment**

A chemical safety assessment has not been carried out.

**National regulations/information (Germany):**

WGK:	WGK = 1, slightly water endangering product. Classification according to the mixture rules in German VwVwS regulation annex 4 from 27.July 2005 Classification in conformity with the calculation method
Storage class according to TRGS 510:	3
General remarks (DE):	This product is in scope of the German regulation "ChemikalienVerbotsVerordnung"

**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:

- R10 Flammable.
- R11 Highly flammable.
- R23/24/25 Toxic by inhalation, in contact with skin and if swallowed.
- R36 Irritating to eyes.
- R39/23/24/25 Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.
- R66 Repeated exposure may cause skin dryness or cracking.
- R67 Vapours may cause drowsiness and dizziness.
- H225 Highly flammable liquid and vapor.
- H226 Flammable liquid and vapor.
- H301 Toxic if swallowed.
- H311 Toxic in contact with skin.
- H319 Causes serious eye irritation.
- H331 Toxic if inhaled.
- H336 May cause drowsiness or dizziness.
- H370 Causes damage to organs.

**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.