



# Safety Data Sheet as per regulation (EC) 1907/2006

Commercial Product Name: DERBITECH FLEX Cleaner 5 ltr

Article-No.: 26090-002-152-C

Revision date: 11.02.2015

Version: 2/en



Print date: 10.06.2015

P-statement(s) P210: Keep away from heat/sparks/open flames/hot surfaces. – No smoking.  
P233: Keep container tightly closed.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.  
P312: Call a POISON CENTER or doctor/physician if you feel unwell.  
P337+P313: If eye irritation persists: Get medical advice/attention.

Further information EUH066: Repeated exposure may cause skin dryness or cracking.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Chemical characterization Ethyl acetate

Ingredient		Classification (EEC) No 67/548	Concentration
		Classification (EC) 1272/2008	
ethyl acetate	CAS No.: 141-78-6 EC-No.: 205-500-4 Index-No.: 607-022-00-5 REACH No.: 01-2119475103-46-XXXX	F; R11 Xi; R36 R66 R67 Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336	>= 95.0 % by weight

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

General advice Move out of dangerous area. Take off all contaminated clothing immediately. Do not leave the victim unattended. Show this safety data sheet to the doctor in attendance.

If inhaled Move to fresh air. If symptoms persist, call a physician. Show this safety data sheet to the doctor in attendance.

In case of skin contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation occurs, get medical advice/attention.

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

If swallowed Rinse mouth. Do NOT induce vomiting. Call a physician immediately.

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

Immediate medical attention Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media Carbon dioxide (CO<sub>2</sub>), Foam, Water spray, Dry powder

Extinguishing media which must not be used for safety reasons High volume water jet

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

Special exposure hazards arising from the substance or preparation itself, its combustion products, or released gases Vapours may form explosive mixtures with air. Provide sufficient air exchange and/or exhaust in work rooms.  
Fire will produce dense black smoke containing hazardous combustion products (see heading 10). Exposure to decomposition products may be a hazard to health.

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## 5.3 Advice for firefighters

Special protective equipment for firefighting

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

Additional information on firefighting

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. Do not allow run-off from fire fighting to enter drains or water courses.

## SECTION 6: Accidental release measures

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

Personal precautions

Ensure adequate ventilation. Pay attention to the spreading of gases especially at ground level (heavier than air) and to the direction of the wind. Use personal protective equipment.

### 6.2 Environmental precautions

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration.

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

Methods for cleaning up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Clean contaminated surface thoroughly.

### 6.5 Additional information

Other information

Treat recovered material as described in the section "Disposal considerations".

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Advice on safe handling

Processing may lead to evolution of flammable volatiles. In case of insufficient ventilation, wear suitable respiratory equipment. Handle and open container with care. Avoid contact with skin and eyes.

Precautions

Smoking, eating and drinking should be prohibited in the application area. For personal protection see section 8. Observe label precautions.

Advice on protection against fire and explosion

Take precautionary measures against static discharges. Vapours may form explosive mixture with air. Use water spray to cool unopened containers.

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

Storage space and container requirements

Storage must be in accordance with the BetrSichV (Germany). Keep in a cool, well-ventilated place. Keep in an area equipped with solvent resistant flooring. Keep in properly labelled containers. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

TRGS 510

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## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

**ETHYL ACETATE**

Belgium

Long-term exposure value/ ppm	Long-term exposure value/ mg/m <sup>3</sup>	Source
400	1 461	35

Source: 35 - Liste de valeurs limites d'expositions professionnelle aux agents chimiques (11.06.2009)

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## DNEL

Value	Target group	Exposure route	Exposure frequency	Source
734 mg/m <sup>3</sup>	Workers	Inhalation	Long term effects systemic	100
734 mg/m <sup>3</sup>	Workers	Inhalation	Long term effects Local	100
1486 mg/m <sup>3</sup>	Workers	Inhalation	Acute Local effects	100
63 mg/kg	Workers	dermal exposure	Long term effects systemic	100
367 mg/m <sup>3</sup>	Consumers	Inhalation	Long term effects systemic	100
367 mg/kg	Consumers	Inhalation	Long term effects Local	100
734 mg/m <sup>3</sup>	Consumers	Inhalation	Acute systemic	100
37 mg/kg	Consumers	dermal exposure	Long term effects systemic	100
4,5 mg/kg	Consumers	Oral	Long term effects systemic	100

Source: 100 - Firmendaten

## PNEC

Value	Exposure route	Source
0,26 mg/l	fresh water	100
0,22 mg/l	Soil	100
0,34 mg/kg	sediment	100
650 mg/l	Waste water pretreatment	100

Source: 100 - Firmendaten

## 8.2 Exposure controls

### Respiratory protection

Vapour during processing may be irritating to the respiratory tract and to the eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

#### Remarks:

Recommended Filter type: A2

Use the indicated respiratory protection if the occupational exposure limit is exceeded and/or in case of product release (dust).

### Hand protection

Protective gloves complying with EN 374. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

#### Suitable material:

Nitriles

#### Unsuitable material:

woven fabric, Leather gloves

#### Break through time:

<25 min

### Eye protection

Tightly fitting safety goggles

### Skin and body protection

Wear suitable protective equipment. Long sleeved clothing

### General protective and hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feedingstuffs. Wash hands before breaks and at the end of workday. Use protective skin cream before handling the product. Avoid contact with the skin and the eyes.

### Engineering measures

Ensure adequate ventilation, especially in confined areas. If these are not sufficient to maintain concentrations of particulates and solvent vapour below the OEL, suitable respiratory protection must be worn.

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

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

Physical state	liquid
Form	liquid
Odour	fruit-like
Melting point [°C] / Freezing point [°C]	appr. -84 °C
Boiling range [°C]	appr. 76 °C
Highest measured value:	78
Flash point [°C]	-4 °C
Evaporation rate [kg/(s*m <sup>2</sup> )]	not determined
Explosion limits [Vol-%]	
Lower limit:	< 2,1 % vol
Upper limit:	11,5 % vol
Vapour pressure [kPa]	100
Vapour density	not determined
Density [g/cm <sup>3</sup> ]	appr. 0,9 g/cm <sup>3</sup>
Temperature:	20 °C
Water solubility [g/l]	61 g/l
Partition coefficient n-octanol /water (log P O/W)	not determined
Autoignition temperature [°C]	not determined
Viscosity, dynamic [kg/(m*s)]	appr. 0,5 mPa.s
Temperature:	20 °C
Explosive properties	Not relevant
Oxidising properties	Not relevant

### **9.2 Other information**

Ignition temperature [°C]	appr. 460 °C
Evaporation rate (ether = 1) :	2,9

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

### **10.3 Possibility of hazardous reactions**

Hazardous reactions	Risk of violent reaction.
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### **10.4 Conditions to avoid**

Conditions to avoid	Heat, flames and sparks.
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### **10.5 Incompatible materials**

Materials to avoid	Strong oxidizing agents, Strong acids and strong bases, Alkali metals
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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### ETHYL ACETATE

Oral toxicity [mg/kg]	Test criterion	Test species	Source
5620 mg/kg	LD50	rat	100

Source: 100 - Firmendaten

Dermal toxicity [mg/kg]	Test criterion	Test species	Source
18000 mg/kg	LD50	rabbit	100

Source: 100 - Firmendaten

Inhalative toxicity [mg/l]	Test criterion	Test species	Exposure duration	Source
56 mg/l	LC50	rat	8 h	100

Source: 100 - Firmendaten

LC50 Inhalation 4h for vapours [mg/l]	Test criterion	Test species	Exposure duration	Source
56 mg/l	LC50	rat	4 h	100

Source: 100 - Firmendaten

Irritant effect on skin	No skin irritation
Test species	rabbit
Irritant effect on eyes	May irritate eyes.
Test species	rabbit
Sensitization	No sensitization responses were observed.
Measuring method	OECD Test Guideline 406
Test species	guinea pig

### 11.2 Additional information

Experience in practice	Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Irritating to eyes, respiratory system and skin. Irritating to mucous membranes
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## SECTION 12: Ecological information

### 12.1 Toxicity

#### ETHYL ACETATE

Toxicity to fish [mg/l]	Test criterion	Test species	Exposure duration	Source
230 mg/l	LC50	Oncorhynchus mykiss (rainbow trout)	96 h	100

Source: 100 - Firmendaten

Toxicity to daphnia [mg/l]	Test criterion	Test species	Exposure duration	Source
717 mg/l	EC 50	Daphnia magna (Water flea)	48 h	100

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Source: 100 - Firmendaten

Toxicity to algae [mg/l]	Source
3300 mg/l	100

Source: 100 - Firmendaten

NOEC (daphnia) [mg/l]	Test species	Exposure duration	Source
2,4	Daphnia magna (Water flea)	21 day(s)	100

Source: 100 - Firmendaten

NOEC (algae) [mg/l]	Test species	Measuring method	Source
> 101	Desmodesmus subspicatus	OECD Test Guideline 201	100

Source: 100 - Firmendaten

Biodegradability Readily biodegradable.

Bioaccumulation Bioaccumulation slight

## 12.5 Results of PBT and vPvB assessment

Results of PBT characteristics determination This preparation contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

## 12.6 Other adverse effects

Further information on ecology See also section 12.1

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Disposal considerations According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. The following Waste Codes are only suggestions:

Waste Code 070204 - other organic solvents, washing liquids and mother liquors

Uncleaned empty packaging -  
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## SECTION 14: Transport information

	Land transport ADR/RID	Marine transport IMDG	Air transport ICAO/IATA
14.1 UN-No	1173	1173	1173
14.3 Transport hazard class(es)	3	3	3
14.4 Packaging group	II	II	II
14.2 Description of the goods	ETHYL ACETATE	ETHYLACETAT	Ethylacetat
14.2 UN proper shipping name		ETHYL ACETATE	Ethyl acetate
Labels	3 	3 	3 - Flammable Liquid 
Risk No.	33		
Category	2		
Factor	3		
Classification Code	F1		
Tunnel restriction code	D/E		
EmS		F-E;S-D	

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	Land transport ADR/RID	Marine transport IMDG	Air transport ICAO/IATA
Stowage category		B	

## 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code      Not relevant

## SECTION 15: Regulatory information

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

Additional regulations      Additionally, observe any national regulations!

## SECTION 16: Other information

Relevant R-phrases	R11: Highly flammable. R36: Irritating to eyes. R66: Repeated exposure may cause skin dryness or cracking. R67: Vapours may cause drowsiness and dizziness.								
Relevant H-phrases	H225: Highly flammable liquid and vapour. H319: Causes serious eye irritation. H336: May cause drowsiness or dizziness. EUH066: Repeated exposure may cause skin dryness or cracking.								
Wording of the hazard classes	Flam. Liq.: Flammable liquid Eye Irrit.: Serious eye irritation STOT SE: Specific target organ toxicity – single exposure								
Modifications since last version	Modifications of the previous version are denoted with an asterisk (*).								
Classification for mixtures and used evaluation method according to regulation (EC) 1207/2008 [CLP]	<table border="1"><thead><tr><th>Classification</th><th>evaluation</th></tr></thead><tbody><tr><td>Flam. Liq. 2; H225</td><td></td></tr><tr><td>Eye Irrit. 2; H319</td><td></td></tr><tr><td>STOT SE 3; H336</td><td></td></tr></tbody></table>	Classification	evaluation	Flam. Liq. 2; H225		Eye Irrit. 2; H319		STOT SE 3; H336	
Classification	evaluation								
Flam. Liq. 2; H225									
Eye Irrit. 2; H319									
STOT SE 3; H336									
Department issuing safety data sheet	Environmental Department								
Further information	Full text of R-phrases referred to under sections 2 and 3								