

**Safety Data Sheet**  
according to Regulation (EC) No. 1907/2006 (REACH)  
according to Regulation (EU) No 453/2010



Article No.: 141.0450.0  
Print date: 18.11.2014  
Version: 4-0

Pakmarker Spray  
Revision date: 05.04.2014  
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**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

**1.1. Product identifiers**

Article No. (manufacturer/supplier): 141.0450.0  
Identification of the substance or mixture: Pakmarker Spray

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

**Uses advised against:**

There is no information available for use is discouraged facing.

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

**supplier (manufacturer/importer/downstream user/distributor)**

Interlab B V  
Penningweg 32D Telephone: +31 (0)76 50 22 540  
NL-4879 AG Etten-Leur Telefax: +31 (0)76 50 14 733  
The Netherlands

**Dept. responsible for information:**

Interlab B V +31 (0)76 50 22 540

**1.4. Emergency telephone number**

National Poison phone number Information  
Centrum (NVIC): +31 30-2748888  
Exclusively intended for healthcare professionals in acute poisoning.

**SECTION 2: Hazards identification**

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

**Classification according to Regulation (EC) No. 1272/2008 [CLP]**

This mixture is classified as hazardous according to regulation (EC) No. 1272/2008 [CLP].

H222		Extremely flammable aerosol.
Eye Irrit. 2 / H319	Serious eye damage/eye irritation	Causes serious eye irritation.
STOT SE 3 / H336	Specific target organ toxicity (single exposure)	May cause drowsiness or dizziness.
Aquatic Chronic 3 / H412	Hazardous to the aquatic environment	Harmful to aquatic life with long lasting effects.

**Classification according to Directive 67/548/EEC or 1999/45/EC**

This mixture is classified as hazardous according to 1999/45/EC.

F+; R12	Extremely flammable	Extremely flammable
Xi; R36	Irritant	Irritating to eyes.
R52-53		Harmful to aquatic life. May cause long-term adverse effects in the aquatic environment.
R66		Repeated exposure may cause skin dryness or cracking.
R67		Vapours may cause drowsiness and dizziness.

**2.2. Label elements**

The product is classified and labelled according to EC directives or corresponding national laws.

**Labelling according to Regulation (EC) No. 1272/2008 [CLP]**

**Hazard pictograms**



**Danger**

**Hazard statements**

H222	Extremely flammable aerosol.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H412	Harmful to aquatic life with long lasting effects.

**Precautionary statements**

P410 + P412	Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
P260	Do not breathe aerosol.
P264	Wash hands thoroughly after handling.

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P302 + P352	IF ON SKIN: Wash with plenty of water/.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER/doctor/./?/ if you feel unwell.
P405	Store locked up.
P211	Do not spray on an open flame or other ignition source.
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.
P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P103	Read label before use.
P280	Wear protective gloves and protective clothing.

**contains:**

acetone

**Supplemental Hazard information (EU)**

EUH066	Repeated exposure may cause skin dryness or cracking.
EUH208	Contains Fatty acids, tall-oil esters with polyethylene glycol mono(hydrogen maleate), compds. with amides from diethylendiamin and tall-oil fatty acids. May produce an allergic reaction.

**Labelling (67/548/EEC or 1999/45/EC)**



F+ Extremely flammable



Xi Irritant

**Hazard statements**

12	Extremely flammable
36	Irritating to eyes.
52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
66	Repeated exposure may cause skin dryness or cracking.
67	Vapours may cause drowsiness and dizziness.

**Precautionary statements**

2	Keep out of reach of children.
16	Keep away from sources of ignition. - No smoking.
24	Avoid contact with skin.
29	Do not empty into drains.
46	If swallowed, seek medical advice immediately and show this container or label.
51	Use only in well-ventilated areas.
23	Do not breathe vapour.

**contains:**

not applicable

**Special provisions concerning the labelling of certain mixtures**

96	Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use.
97	Do not spray on a naked flame or any incandescent material. Keep away from sources of ignition - No smoking. Keep out of the reach of children.
99	Contains Fatty acids, tall-oil esters with polyethylene glycol mono (hydrogen maleate), compds. with amides from diethylendiamin and tall-oil fatty acids. May produce an allergic reaction.

2.3. **Other hazards**

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

3.1. **Substances**

Not applicable.

3.2. **Mixtures**

**Product description / chemical characterization**

**Description** Aerosol

**Hazardous ingredients**

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**Classification according to Regulation (EC) No. 1272/2008 [CLP]**

EC No. CAS No. INDEX No.	REACH No. Chemical name classification:	Wt % Remark
203-448-7 106-97-8 601-004-00-0	butane Flam. Gas 1 H220 / Press. Gas	10 - 12,5
204-658-1 123-86-4 607-025-00-1	01-2119485493-29-XXXX n-butyl acetate Flam. Liq. 3 H226 / STOT SE 3 H336	1 - 2,5
215-535-7 1330-20-7 601-022-00-9	xylene Flam. Liq. 3 H226 / Acute Tox. 4 H332 / Acute Tox. 4 H312 / Skin Irrit. 2 H315	2,5 - 5
222716-38-3	Fatty acids, tall-oil esters with polyethylene glycol mono(hydrogen maleate), compds. with amides from diethylenediamin and tall-oil fatty acids Acute Tox. 4 H302 / Eye Irrit. 2 H319 / Skin Irrit. 2 H315 / Skin Sens. 1 H317 / STOT RE 2 H373 / Aquatic Acute 1 H400 / Aquatic Chronic 1 H410	< 0,5
919-446-0 64742-82-1	01-2119458049-33-xxxx hydrocarbons, C9-C12, n-alkane, iso-alkane, cyclic, aromatic (2-25%) Flam. Liq. 3 H226 / Asp. Tox. 1 H304 / STOT RE 1 H372 / STOT SE 3 H336 / Aquatic Chronic 2 H411	2,5 - 5
200-662-2 67-64-1 606-001-00-8	01-2119471330-49-xxxx acetone Flam. Liq. 2 H225 / Eye Irrit. 2 H319 / STOT SE 3 H336	12,5 - 20
238-878-4 68476-25-5	Silicon dioxide STOT RE 2 H373	5 - 10
200-827-9 74-98-6 601-003-00-5	propane Flam. Gas 1 H220 / Press. Gas	12,5 - 20
200-857-2 75-28-5 601-004-00-0	isobutane Flam. Gas 1 H220 / Press. Gas	10 - 12,5
201-159-0 78-93-3 606-002-00-3	01-2119457290-43 butanone Flam. Liq. 2 H225 / Eye Irrit. 2 H319 / STOT SE 3 H336	1 - 2,5

**Classification according to Directive 67/548/EEC or 1999/45/EC**

EC No. CAS No. INDEX No.	REACH No. Chemical name classification:	Wt % Remark
200-662-2 67-64-1 606-001-00-8	01-2119471330-49-xxxx acetone F; R11 / Xi; R36 / R66 / R67	12,5 - 20
200-827-9 74-98-6 601-003-00-5	propane F+; R12	12,5 - 20
203-448-7 106-97-8 601-004-00-0	butane F+; R12	10 - 12,5
200-857-2 75-28-5 601-004-00-0	isobutane F+; R12	10 - 12,5
215-535-7 1330-20-7 601-022-00-9	01-2119488216-32-xxxx xylene, mixture of isomers R10 / Xn; R20/21 / Xi; R38	2,5 - 5
919-446-0 64742-82-1	01-2119458049-33-xxxx white spirit R10 / Xn; R48/20-65 / N; R51-53 / R66 / R67	2,5 - 5

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201-159-0	01-2119457290-43	
78-93-3	butanone	1 - 2,5
606-002-00-3	F; R11 / Xi; R36 / R66 / R67	
204-658-1	01-2119485493-29-XXXX	
123-86-4	n-butyl acetate	1 - 2,5
607-025-00-1	R10 / R66 / R67	
222716-38-3	Fatty acids, tall-oil esters with polyethylene glycol mono (hydrogen maleate), compds. with amides from diethylenediamin and tall-oil fatty acids Xn; R22-48/22 / Xi; R36-38 / R43 / N; R50-53	< 0,5

**Additional information**

Full text of R-phrases: see section 16.

Full text of H-phrases: see section 16.

**SECTION 4: First aid measures**

**4.1. Description of first aid measures**

**General information**

In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness give nothing by mouth, place in recovery position and seek medical advice.

**In case of inhalation**

Remove casualty to fresh air and keep warm and at rest. In case of irregular breathing or respiratory arrest provide artificial respiration.

**Following skin contact**

Remove contaminated, saturated clothing immediately. After contact with skin, wash immediately with plenty of water and soap. Do not use solvents or thinners.

**After eye contact**

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical advice immediately.

**After ingestion**

If swallowed, rinse mouth with water (only if the person is conscious). Seek medical advice immediately. Keep victim calm. Do NOT induce vomiting.

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

In all cases of doubt, or when symptoms persist, seek medical advice.

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

No data available

**SECTION 5: Firefighting measures**

**5.1. Extinguishing media**

**Suitable extinguishing media**

alcohol resistant foam, carbon dioxide, Powder, spray mist, (water)

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

strong water jet

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

Dense black smoke occurs during fire. Inhaling hazardous decomposing products can cause serious health damage.

**5.3. Advice for firefighters**

Provide a conveniently located respiratory protective device. Do not allow water used to extinguish fire to enter drains, ground or waterways. Treat runoff as hazardous. Cool closed containers that are near the source of the fire.

**SECTION 6: Accidental release measures**

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

Keep away from sources of ignition. Ventilate affected area. Do not breathe vapours.

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains. If the product contaminates lakes, rivers or sewages, inform competent authorities in accordance with local regulations.

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

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Isolate leaked material using non-flammable absorption agent (e.g. sand, earth, vermiculit, diatomaceous earth) and collect it for disposal in appropriate containers in accordance with the local regulations (see chapter 13). Clean using cleansing agents. Do not use solvents.

**6.4. Reference to other sections**

Observe protective provisions (see chapter 7 and 8).

## SECTION 7: Handling and storage

**7.1. Precautions for safe handling**

**Advices on safe handling**

Avoid formation of flammable and explosive vapour concentrations in the air and exceeding the exposure limit values. Only use the material in places where open light, fire and other flammable sources can be kept away. Electrical equipment must be protected meeting the accepted standard. Product may become electrostatically charged. Provide earthing of containers, equipment, pumps and ventilation facilities. Anti-static clothing including shoes are recommended. Floors must be electrically conductive. Keep away from heat sources, sparks and open flames. Use only spark proof tools. Avoid contact with skin, eyes and clothes. Do not inhale dusts, particulates and spray mist when using this preparation. Avoid respiration of swarf. When using do not eat, drink or smoke. Personal protection equipment: refer to chapter 8. Do not empty containers with pressure - no pressure vessel! Always keep in containers that correspond to the material of the original container. Follow the legal protection and safety regulations.

**Precautions against fire and explosion:**

Vapours are heavier than air. Vapours form explosive mixtures with air.

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

**Requirements for storage rooms and vessels**

Storage in accordance with the Ordinance on Industrial Safety and Health (BetrSiVO). Keep container tightly closed. Do not empty containers with pressure - no pressure vessel! Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks. Soils have to conform to the "Guidelines for avoidance of ignition hazards due to electrostatic charges (BGR 132)".

**Hints on joint storage**

Keep away from strongly acidic and alkaline materials as well as oxidizers.

**Further information on storage conditions**

Take care of instructions on label. Store in a well-ventilated and dry room at temperatures between 15 °C and 30 °C. Protect from heat and direct sunlight. Keep container tightly closed. Remove all sources of ignition. Smoking is forbidden. Access only for authorised persons. Store carefully closed containers upright to prevent any leaks.

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

Observe technical data sheet. Observe instructions for use.

## SECTION 8: Exposure controls/personal protection

**8.1. Control parameters**

**Occupational exposure limit values:**

xylene, mixture of isomers

INDEX No. 601-022-00-9 / EC No. 215-535-7 / CAS No. 1330-20-7

WEL, TWA: 220 mg/m<sup>3</sup>; 50 ppm

WEL, STEL: 441 mg/m<sup>3</sup>; 100 ppm

BMGV, TWA: 650 mmol/mol creatinine

Remark: methyl hippuric acid; urine; end of exposure or end of shift

butanone

INDEX No. 606-002-00-3 / EC No. 201-159-0 / CAS No. 78-93-3

WEL, TWA: 600 mg/m<sup>3</sup>; 200 ppm

WEL, STEL: 899 mg/m<sup>3</sup>; 300 ppm

acetone

INDEX No. 606-001-00-8 / EC No. 200-662-2 / CAS No. 67-64-1

WEL, TWA: 1210 mg/m<sup>3</sup>; 500 ppm

WEL, STEL: 3620 mg/m<sup>3</sup>; 1500 ppm

n-butyl acetate

INDEX No. 607-025-00-1 / EC No. 204-658-1 / CAS No. 123-86-4

MEL/OES, TWA: 724 mg/m<sup>3</sup>; 150 ppm

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MEL/OES, STEL: 966 mg/m<sup>3</sup>; 200 ppm

butane

INDEX No. 601-004-00-0 / EC No. 203-448-7 / CAS No. 106-97-8

WEL, TWA: 1450 mg/m<sup>3</sup>; 600 ppm

WEL, STEL: 1810 mg/m<sup>3</sup>; 750 ppm

Remark: (Carc, only applies if Butane contains more than 0.1% of buta-1,3-diene)

**Additional information**

TWA : long-term occupational exposure limit value

STEL : short-term occupational exposure limit value

Ceiling : peak limitation

**DNEL:**

n-butyl acetate

INDEX No. 607-025-00-1 / EC No. 204-658-1 / CAS No. 123-86-4

DNEL long-term dermal (systemic), Workers: 7 mg/kg

DNEL long-term inhalative (systemic), Workers: 48 mg/m<sup>3</sup>

DNEL long-term oral (repeated), Consumer: 3,4 mg/kg bw/day

DNEL long-term dermal (systemic), Consumer: 3,4 mg/kg bw/day

DNEL long-term inhalative (systemic), Consumer: 12 mg/m<sup>3</sup>

xylene

INDEX No. 601-022-00-9 / EC No. 215-535-7 / CAS No. 1330-20-7

DNEL long-term dermal (systemic), Workers: 180 mg/kg

DNEL acute inhalative (local), Workers: 289 mg/m<sup>3</sup>

DNEL acute inhalative (systemic), Workers: 77 mg/m<sup>3</sup>

DNEL long-term inhalative (systemic), Workers: 77 mg/m<sup>3</sup>

DNEL long-term oral (repeated), Consumer: 1,6 mg/kg

DNEL long-term dermal (systemic), Consumer: 108 mg/kg

DNEL acute inhalative (local), Consumer: 174 mg/m<sup>3</sup>

DNEL acute inhalative (systemic), Consumer: 14,8 mg/m<sup>3</sup>

DNEL long-term inhalative (systemic), Consumer: 14,8 mg/m<sup>3</sup>

hydrocarbons, C9-C12, n-alkane, iso-alkane, cyclic, aromatic (2-25%)

EC No. 919-446-0 / CAS No. 64742-82-1

DNEL long-term dermal (systemic), Workers: 44 x10<sup>44</sup> mg/kg

DNEL long-term inhalative (systemic), Workers: 330 mg/m<sup>3</sup>

DNEL long-term oral (repeated), Consumer: 26 mg/kg bw/day

DNEL long-term dermal (systemic), Consumer: 26 mg/kg

DNEL long-term inhalative (systemic), Consumer: 71 mg/m<sup>3</sup>

acetone

INDEX No. 606-001-00-8 / EC No. 200-662-2 / CAS No. 67-64-1

DNEL long-term dermal (systemic), Workers: 186 mg/kg

DNEL acute inhalative (systemic), Workers: 2420 mg/m<sup>3</sup>

DNEL long-term inhalative (systemic), Workers: 1210 mg/m<sup>3</sup>

DNEL long-term oral (repeated), Consumer: 62 mg/kg bw/day

DNEL long-term dermal (systemic), Consumer: 62 mg/kg bw/day

DNEL long-term inhalative (systemic), Consumer: 200 mg/m<sup>3</sup>

butanone

INDEX No. 606-002-00-3 / EC No. 201-159-0 / CAS No. 78-93-3

DNEL long-term dermal (systemic), Workers: 1161 mg/kg

DNEL acute inhalative (systemic), Workers: 600 mg/m<sup>3</sup>

DNEL long-term oral (repeated), Consumer: 31 mg/kg

DNEL acute inhalative (systemic), Consumer: 106 mg/m<sup>3</sup>

**PNEC:**

n-butyl acetate

INDEX No. 607-025-00-1 / EC No. 204-658-1 // CAS No. 123-86-4

PNEC aquatic, freshwater: 0,18 mg/L

PNEC aquatic, marine water: 0,018 mg/L

PNEC aquatic, intermittent release: 0,36 mg/L

PNEC sediment, freshwater: 0,981 mg/kg

PNEC sediment, marine water: 0,0981 mg/kg

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PNEC, Soil: 0,0903 mg/kg  
PNEC sewage treatment plant (STP): 35,6 mg/L

**xylene**

INDEX No. 601-022-00-9 / EC No. 215-535-7 // CAS No. 1330-20-7  
PNEC aquatic, freshwater: 0,327 mg/L  
PNEC aquatic, marine water: 0,327 mg/L  
PNEC aquatic, intermittent release: 0,327 mg/L  
PNEC sediment, freshwater: 12,46 mg/kg  
PNEC sediment, marine water: 12,46 mg/kg  
PNEC, Soil: 2,31 mg/kg  
PNEC sewage treatment plant (STP): 6,58 mg/L

**acetone**

INDEX No. 606-001-00-8 / EC No. 200-662-2 // CAS No. 67-64-1  
PNEC aquatic, freshwater: 10,6 mg/L  
PNEC aquatic, marine water: 1,06 mg/L  
PNEC sediment, freshwater: 30,4 mg/kg  
PNEC sediment, marine water: 3,04 mg/kg  
PNEC, Soil: 29,5 mg/kg  
PNEC sewage treatment plant (STP): 100 mg/L

**butanone**

INDEX No. 606-002-00-3 / EC No. 201-159-0 // CAS No. 78-93-3  
PNEC aquatic, freshwater: 55,8 mg/L  
PNEC aquatic, marine water: 55,8 mg/L  
PNEC aquatic, intermittent release: 55,8 mg/L  
PNEC, Soil: 22,5 mg/kg  
PNEC sewage treatment plant (STP): 709 mg/L  
PNEC Secondary Poisoning: 1000 mg/kg

**8.2. Exposure controls**

Provide good ventilation. This can be achieved with local or room suction. If this should not be sufficient to keep aerosol and solvent vapour concentration below the exposure limit values, a suitable respiratory protection must be used.

**Occupational exposure controls**

**Respiratory protection**

If concentration of solvents is beyond the occupational exposure limit values, approved and suitable respiratory protection must be used. Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190). Use only respiratory protection equipment with CE-symbol including four digit test number.

Filter types: A, B, E, K. Class 1: Maximum permitted contaminant concentration in inhaled air = 1000 mL/m<sup>3</sup> (0.1 % by vol.); class 2: maximum permitted contaminant concentration in inhaled air = 5000 mL/m<sup>3</sup> (0.5 % by vol.); class 3: maximum permitted contaminant concentration in inhaled air = 10000 mL/m<sup>3</sup> (1.0 % by vol.), Particle filter device (DIN EN 143)

**Hand protection**

For prolonged or repeated handling the following glove material must be used: NBR (Nitrile rubber)

Thickness of the glove material > 0,4 mm ; Breakthrough time (maximum wearing time) > 480 min.

Observe the instructions and details for use, storage, maintenance and replacement provided by the protective glove manufacturer. Penetration time of glove material depending on intensity and duration of exposure to skin. Recommended glove articles DIN EN 374

Barrier creams can help protecting exposed skin areas. In no case should they be used after contact.

**Eye protection**

Wear closely fitting protective glasses in case of splashes.

**Protective clothing**

Wear antistatic clothing of natural fibers (cotton) or heat resistant synthetic fibers. For the protection against direct skin contact, body protective clothing is essential (in addition to the usual working clothes).

**Protective measures**

After contact clean skin thoroughly with water and soap or use appropriate cleanser.

**Environmental exposure controls**

Do not allow to enter into surface water or drains. See chapter 7. No additional measures necessary.

**SECTION 9: Physical and chemical properties**

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

**Appearance:**

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**Physical state** liquid  
**Colour** refer to label  
**Odour** characteristic

Safety relevant basis data	Unit	Method	Remark
Flash point:	-108 °C	DIN 53213	
Ignition temperature in °C:	201 °C		
Lower explosion limit:	0,6 Vol-%		
Upper explosion limit:	13,0 Vol-%		
Vapour pressure at 20 °C:	1736,53 mbar		
Density at 20 °C:	1,03 g/cm <sup>3</sup>		
Water solubility (g/L):	partially soluble		
Viscosity at °C:	Aerosol		
Solvent separation test (%):	< 3 %		
Solid content (%):	37,20 Wt %		
solvent content:			
Organic solvents:	63 Wt %		
Water:	0 Wt %		

9.2. **Other information:**  
No data available

## SECTION 10: Stability and reactivity

- 10.1. **Reactivity**  
No data available
- 10.2. **Chemical stability**  
Stable when applying the recommended regulations for storage and handling. Further information on correct storage: refer to chapter 7.
- 10.3. **Possibility of hazardous reactions**  
Keep away from strong acids, strong bases and strong oxidizing agents to avoid exothermic reactions.
- 10.4. **Conditions to avoid**  
Hazardous decomposition byproducts may form with exposure to high temperatures.
- 10.5. **Incompatible materials**  
No data available
- 10.6. **Hazardous decomposition products**  
Hazardous decomposition byproducts may form with exposure to high temperatures, e.g.: carbon dioxide, carbon monoxide, smoke, nitrogen oxides.

## SECTION 11: Toxicological information

No data on preparation itself available.

### 11.1. Information on toxicological effects

#### Acute toxicity

n-butyl acetate

oral, LD50, Rat: 10760 mg/kg

Methode: OECD 423

dermal, LD50, Rabbit: 14112 mg/kg

Methode: OECD 402

inhalative (dust and mist), LC50, Rat: 23,4 mg/L (4 h)

Methode: OECD 403

xylene

oral, LD50, Rat: 4300 mg/kg

dermal, LD50, Rabbit: 4300 mg/kg

inhalative (Gases), LC50, Rat: 27,5 ppmV (4 h)

hydrocarbons, C9-C12, n-alkane, iso-alkane, cyclic, aromatic (2-25%)

oral, LD50, Rat: > 15000 mg/kg

Methode: OECD 401

dermal, LD50, Rat: 3400 mg/kg

Methode: OECD 402

inhalative (vapours), LC50, Rat: 13100 mg/L (4 h)



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Methode: OECD 403

acetone

oral, LD50, Rat: > 2000 mg/kg  
dermal, LD50, Rat: > 15800 mg/kg  
inhalative (vapours), LC50, Rat: > 20 mg/L (4 h)

butanone

oral, LD50, Rat: > 2193 mg/kg  
dermal, LD50, Rabbit: > 5000 mg/kg

**Irritant and corrosive effects**

n-butyl acetate

Skin, Rabbit  
Methode: OECD 404  
Eyes, Rabbit  
Methode: OECD 405

**Sensitisation**

n-butyl acetate

Skin, Guinea pig:  
Methode: OECD 406

**Specific target organ toxicity**

n-butyl acetate

Specific target organ toxicity (single exposure), drowsiness:

**Aspiration hazard**

Toxicological data are not available.

**Practical experience/human evidence**

Other observations:

Inhaling of solvent components above the MWC-value can lead to health damage, e.g. irritation of the mucous membrane and respiratory organs, as well as damage to the liver, kidneys and the central nerve system. Indications for this are: headache, dizziness, fatigue, amyosthenia, drowsiness, in serious cases: unconsciousness. Solvents may cause some of the aforementioned effects through skin resorption. Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and/or absorption through skin. Splashing may cause eye irritation and reversible damage.

**Overall Assessment on CMR properties**

The ingredients in this preparation do not meet the criteria for classification as CMR category 1 or 2 according to 67/548/EEC.

The preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and classified according to the toxicological dangers. See chapters 2 and 15 for details.

**SECTION 12: Ecological information**

**overall evaluation**

There is no information available on the preparation itself .

Do not allow to enter into surface water or drains.

**12.1. Toxicity**

n-butyl acetate

Fish toxicity, LC50, Pimephales promelas (fathead minnow): 18 mg/L (96 h)

Methode: OECD 203

Daphnia toxicity, EC50, Daphnia magna (Big water flea): 44 mg/L (48 h)

Methode: EC50

Algae toxicity, ErC50, Desmodesmus subspicatus.: 647,7 mg/L

Methode: EC50

Algae, NOEC, Desmodesmus subspicatus.: 200

Methode: NOEC

xylene

Fish toxicity, LC50, Oncorhynchus mykiss (Rainbow trout): 13,4 mg/L (96 h)

Daphnia toxicity, EC50, Daphnia magna (Big water flea): 150 mg/L (48 h)

Algae toxicity, ErC50, Pseudokirchneriella subcapitata: 3,6 - 4,9 mg/L (72 h)

acetone

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Fish toxicity, LC50, Oncorhynchus mykiss (Rainbow trout): 5540 mg/L (96 h)  
Daphnia toxicity, EC50, Daphnia pulex (water flea): 8800 mg/L (48 h)  
Algae toxicity, ErC50, Algae: 430 mg/L (96 h)

**butanone**

Fish toxicity, LC50, Pimephales promelas (fathead minnow): 2993 mg/L (96 h)  
Daphnia toxicity, EC50, Daphnia magna (Big water flea): 308 mg/L (48 h)  
Algae toxicity, ErC50, Pseudokirchneriella subcapitata: > 100 mg/L (29 h)

**Long-term Ecotoxicity**

hydrocarbons, C9-C12, n-alkane, iso-alkane, cyclic, aromatic (2-25%)

Daphnia toxicity, NOEC, Daphnia magna (Big water flea): 0,097 mg/L (21 d)

Daphnia toxicity, LOEC, Daphnia magna (Big water flea): 0,203 mg/L (21 d)

**12.2. Persistence and degradability**

n-butyl acetate

, OECD 301D/ EEC 92/69/V, C.4-E: 0 (28 aerobic.); evaluation Readily biodegradable (according to OECD criteria).

Methode: OECD 301D/ EEC 92/69/V, C.4-E

**12.3. Bioaccumulative potential**

acetone

Distribution coefficient (n-octanol / water) (log P O/W): -0,24

**12.4. Mobility in soil**

Toxicological data are not available.

**12.5. Results of PBT assessment**

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

**12.6. Other adverse effects**

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

**Appropriate disposal / Product Recommendation**

Do not allow to enter into surface water or drains. This material and its container must be disposed of in a safe way. Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

**List of proposed waste codes/waste designations in accordance with EWC**

080111 waste paint and varnish containing organic solvents or other dangerous substances

**packaging**

**Recommendation**

Non-contaminated packages may be recycled. Vessels not properly emptied are special waste.

**SECTION 14: Transport information**

**14.1. UN number**

1950

**14.2. UN proper shipping name**

Land transport (ADR/RID):

Aerosols, flammable

Sea transport (IMDG):

AEROSOLS

Air transport (ICAO-TI / IATA-DGR):

Aerosols, flammable

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

2.1

**14.4. Packing group**

not applicable

**14.5. Environmental hazards**

Land transport (ADR/RID)

not applicable

Marine pollutant

not applicable

**14.6. Special precautions for user**

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Transport always in closed, upright and safe containers. Make sure that persons transporting the product know what to do in case of an accident or leakage.

Advices on safe handling: see parts 6 - 8

**Additional information**

**Land transport (ADR/RID)**

tunnel restriction code D

**Sea transport (IMDG)**

EmS-No. F-D,S-U

**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**

**EU legislation**

**Information according to 1999/13/EC about limitation of emissions of volatile organic compounds (VOC-guideline).**

VOC-value (in g/L) ISO 11890-2: 647

VOC-value (in g/L) ASTM D 2369: 647

**according to EU-regulation 2004/42/EC (appendix II)**

EU limit value for this product (cat. (Cat. B/e)): 840 g/l (2007)/0 g/l (2010).

This product contains max 647 g/l VOC.

**National regulations**

**Restrictions of occupation**

Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

**Other regulations, restrictions and prohibition regulations**

Other information

Additional information

0

VOC Switzerland ( weight fraction in %) : 63

**15.2. Chemical Safety Assessment**

**For the following substances of this preparation a chemical safety assessment has been carried out:**

EC No. CAS No.	Chemical name	REACH No.
201-159-0 78-93-3	butanone	01-2119457290-43
200-662-2 67-64-1	acetone	01-2119471330-49-xxxx
204-658-1 123-86-4	n-butyl acetate	01-2119485493-29-XXXX
919-446-0 64742-82-1	white spirit	01-2119458049-33-xxxx

**SECTION 16: Other information**

**Relevant R-and H-phrases (Number and full text):**

Flam. Gas 1 / H220

Flammable gases

Extremely flammable gas.

Press. Gas

Gases under pressure

Flam. Liq. 3 / H226

flammable liquids

Flammable liquid and vapour.

STOT SE 3 / H336

Specific target organ toxicity (single exposure)

May cause drowsiness or dizziness.

Acute Tox. 4 / H332

Acute toxicity (inhalative)

Harmful if inhaled.

Acute Tox. 4 / H312

Acute toxicity (dermal)

Harmful in contact with skin.

Skin Irrit. 2 / H315

skin corrosion/irritation

Causes skin irritation.

Acute Tox. 4 / H302

Acute toxicity (oral)

Harmful if swallowed.

Eye Irrit. 2 / H319

Serious eye damage/eye irritation

Causes serious eye irritation.

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Skin Sens. 1 / H317 STOT RE 2 / H373	respiratory or skin sensitisation Specific target organ toxicity (repeated exposure)	May cause an allergic skin reaction. May cause damage to organs (or state all organs affected, if known) through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard). Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.
Aquatic Acute 1 / H400 Aquatic Chronic 1 / H410	Hazardous to the aquatic environment Hazardous to the aquatic environment	May be fatal if swallowed and enters airways. Causes damage to organs (or state all organs affected, if known) through prolonged or repeated exposure (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard). Toxic to aquatic life with long lasting effects.
Asp. Tox. 1 / H304 STOT RE 1 / H372	Aspiration hazard Specific target organ toxicity (repeated exposure)	Highly flammable liquid and vapour. Flammable Harmful by inhalation and in contact with skin. Irritating to skin. Highly flammable Irritating to eyes. Repeated exposure may cause skin dryness or cracking.
Aquatic Chronic 2 / H411 Flam. Liq. 2 / H225 R10 Xn; R20/21 Xi; R38 F; R11 Xi; R36 R66	Hazardous to the aquatic environment flammable liquids Harmful Irritant Highly flammable Irritant	Vapours may cause drowsiness and dizziness. Extremely flammable Harmful if swallowed. Harmful: danger of serious damage to health by prolonged exposure if swallowed. Irritating to eyes. Irritating to skin. May cause sensitization by skin contact.
R67 F+; R12 Xn; R22-48/22	Extremely flammable Harmful	Very toxic to aquatic life. May cause long-term adverse effects in the aquatic environment.
Xi; R36-38 R43 N; R50-53	Dangerous for the environment	Harmful: danger of serious damage to health by prolonged exposure through inhalation. Harmful: may cause lung damage if swallowed.
Xn; R48/20-65	Harmful	Toxic to aquatic life. May cause long-term adverse effects in the aquatic environment.
N; R51-53	Dangerous for the environment	

**Additional information**

The information supplied on this safety data sheet complies with our current level of knowledge as well as with national and EU regulations. Without written approval, the product must not be used for purposes different from those mentioned in chapter 1. It is always the user's duty to take any necessary measures for meeting the requirements laid down by local rules and regulations. The details in this safety data sheet describe the safety requirements of our product and are not to be regarded as guaranteed attributes of the product.