Safety data sheet
according to Regulation (EC) No 1907/2006, Annex II

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

1.1 Product identifier

Reifen-Reparatur-Spray 500 mL
Art.: 3343

1.2 Relevant identified uses of the substance or mixture and uses advised against
Relevant identified uses of the substance or mixture:
No information available at present.
Uses advised against:
No information available at present.

1.3 Details of the supplier of the safety data sheet
LIQUI MOLY GmbH, Jerg-Wieland-Straße 4, D-89081 Ulm-Lehr
Telephone: (+49) 0731-1420-0, Fax: (+49) 0731-1420-88

Qualified person's e-mail address: info@chemical-check.de, k.schnurbusch@chemical-check.de Please DO NOT use for requesting Safety Data Sheets.

1.4 Emergency telephone
Emergency information services / official advisory body:

Telephone number of the company in case of emergencies:
+49 (0) 700 / 24 112 112 (LMR)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
2.1.1 Classification according to Regulation (EC) 1272/2008 (CLP)

Hazard class	Hazard category	Hazard statement
Eye Irrit.	2	H319-Causes serious eye irritation.
Lact.	Additional category	H362-May cause harm to breast-fed children.
STOT SE	3	H336-May cause drowsiness or dizziness.
Aerosol	1	H222-Extremely flammable aerosol.
Aquatic Acute	1	H400-Very toxic to aquatic life.
Aquatic Chronic	1	H410-Very toxic to aquatic life with long lasting effects.
Aerosol	1	H229-Pressurised container: May burst if heated.

2.1.2 Classification according to Directives 67/548/EEC and 1999/45/EC (including amendments)
F+,Extremely flammable
Xi, Irritant, R36
R64
R66
R67
N, Dangerous for the environment, R50-53

2.2 Label elements
2.2.1 Labeling according to Regulation (EC) 1272/2008 (CLP)

Danger

Hazard statement

H319-Causes serious eye irritation. H362-May cause harm to breast-fed children. H336-May cause drowsiness or dizziness. H222-Extremely flammable aerosol. H410-Very toxic to aquatic life with long lasting effects. H229-Pressurised container: May burst if heated.

P101-If medical advice is needed, have product container or label at hand. P102-Keep out of reach of children.

Prevention

P201-Obtain special instructions before use. P210-Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P211-Do not spray on an open flame or other ignition source. P251-Do not pierce or burn, even after use. P260-Do not breathe vapour or spray. P263-Avoid contact during pregnancy/while nursing. P273-Avoid release to the environment. P280-Wear eye protection.

Response

P308+P313-IF exposed or concerned: Get medical advice/attention.

Storage

P405-Store locked up. P410+P412-Protect from sunlight. Do not expose to temperatures exceeding 50 °C.

Disposal

P501-Dispose of contents/container to hazardous or special waste collection point.

EUH066-Repeated exposure may cause skin dryness or cracking.

Without adequate ventilation, formation of explosive mixtures may be possible.
n-butyl acetate
Butanone
Alkanes, C14-17, chloro
Acetone

2.3 Other hazards

The mixture does not contain any vPvB substance (vPvB = very persistent, very bioaccumulative) or is not included under XIII of the regulation (EC) 1907/2006.
The mixture does not contain any PBT substance (PBT = persistent, bioaccumulative, toxic) or is not included under XIII of the regulation (EC) 1907/2006.

SECTION 3: Composition/information on ingredients

Aerosol

3.1 Substance

n.a.

3.2 Mixture

Dimethyl ether	Substance for which an EU exposure limit value applies.
Registration number (REACH)	01-2119472128-37-XXXX
Index	603-019-00-8
EINECS, ELINCS, NLP	204-065-8
CAS	CAS 115-10-6
content %	20-50
Classification according to Directive 67/548/EEC	Extremely flammable, F+, R12
Classification according to Regulation (EC) 1272/2008 (CLP)	Flam. Gas 1, H220

n-butyl acetate	
Registration number (REACH)	01-2119485493-29-XXXX
Index	607-025-00-1

EINECS, ELINCS, NLP	204-658-1
CAS	CAS 123-86-4
content %	20-40
Classification according to Directive 67/548/EEC	Flammable, R10 R66 R67
Classification according to Regulation (EC) 1272/2008 (CLP)	Flam. Liq. 3, H226 STOT SE 3, H336

Acetone	**Substance for which an EU exposure limit value applies.**
Registration number (REACH)	01-2119471330-49-XXXX
Index	606-001-00-8
EINECS, ELINCS, NLP	200-662-2
CAS	CAS 67-64-1
content %	10-20
Classification according to Directive 67/548/EEC	Highly flammable, F, R11 Irritant, Xi, R36 R66 R67
Classification according to Regulation (EC) 1272/2008 (CLP)	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336

Butanone	**Substance for which an EU exposure limit value applies.**
Registration number (REACH)	01-2119457290-43-XXXX
Index	606-002-00-3
EINECS, ELINCS, NLP	201-159-0
CAS	CAS 78-93-3
content %	10-20
Classification according to Directive 67/548/EEC	Highly flammable, F, R11 Irritant, Xi, R36 R66 R67
Classification according to Regulation (EC) 1272/2008 (CLP)	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336

Alkanes, C14-17, chloro	
Registration number (REACH)	01-2119519269-33-XXXX
Index	602-095-00-X
EINECS, ELINCS, NLP	287-477-0
CAS	CAS 85535-85-9
content %	0,25-<20
Classification according to Directive 67/548/EEC	R64 R66 Dangerous for the environment, N, R50 Dangerous for the environment, R53
Classification according to Regulation (EC) 1272/2008 (CLP)	Lact. Additional category, H362 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410 (M=100)

For the text of the R-phrases / H-phrases and classification codes (GHS/CLP), see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

Inhalation

Remove person from danger area.
Supply person with fresh air and consult doctor according to symptoms.
If the person is unconscious, place in a stable side position and consult a doctor.
Respiratory arrest - Artificial respiration apparatus necessary.
symptoms:
Fatigue

Mental confusion

Skin contact

Wash thoroughly using copious water - remove contaminated clothing immediately. If skin irritation occurs (redness etc.), consult doctor.
symptoms:
Mild irritant

Eye contact

Remove contact lenses.
Wash thoroughly for several minutes using copious water. Seek medical help if necessary.
symptoms:
Watering eyes
Irritation of the eyes

Ingestion

Typically no exposure pathway.
Rinse the mouth thoroughly with water.
Call doctor immediately - have Data Sheet available.
symptoms:
Headaches
Nausea

4.2 Most important symptoms and effects, both acute and delayed

Irritation of the respiratory tract
Coughing
Headaches
Dizziness
Effects/damages the central nervous system
Unconsciousness
Other dangerous properties cannot be ruled out.
In certain cases, the symptoms of poisoning may only appear after an extended period / after several hours.

4.3 Indication of any immediate medical attention and special treatment needed

n.c.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

CO2
Extinction powder
Cool container at risk with water.
Water jet spray

Unsuitable extinguishing media

n.c.

5.2 Special hazards arising from the substance or mixture

In case of fire the following can develop:
Oxides of carbon
Hydrogen chloride
Toxic gases
Explosive vapour/air mixture
Danger of bursting (explosion) when heated

5.3 Advice for firefighters

Protective respirator with independent air supply.
Full protection, if necessary
Dispose of contaminated extinction water according to official regulations.
In case of fire and/or explosion do not breathe fumes.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Remove possible causes of ignition - do not smoke.
Ensure sufficient supply of air.
Avoid inhalation, and contact with eyes or skin.

6.2 Environmental precautions
If leakage occurs, dam up.
Resolve leaks if this possible without risk.
Prevent from entering drainage system.
Prevent surface and ground-water infiltration, as well as ground penetration.

6.3 Methods and material for containment and cleaning up
If spray or gas escapes, ensure ample fresh air is available.
Active substance:
Soak up with absorbent material (e.g. universal binding agent, sand, diatomaceous earth) and dispose of according to Section 13.

6.4 Reference to other sections
For personal protective equipment see Section 8 and for disposal instructions see Section 13.

SECTION 7: Handling and storage

In addition to information given in this section, relevant information can also be found in section 8 and 6.1.

7.1 Precautions for safe handling

7.1.1 General recommendations
Ensure good ventilation.
Without adequate ventilation, formation of explosive mixtures may be possible.
Keep away from sources of ignition - Do not smoke.
Do not use on hot surfaces.
Do not use the product in enclosed spaces.
Observe directions on label and instructions for use.
Use working methods according to operating instructions.

7.1.2 Notes on general hygiene measures at the workplace
General hygiene measures for the handling of chemicals are applicable.
Wash hands before breaks and at end of work.
Keep away from food, drink and animal feedingstuffs.
Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

7.2 Conditions for safe storage, including any incompatibilities
Keep out of access to unauthorised individuals.
Do not store with flammable or self-igniting materials.
Store product closed and only in original packing.
Not to be stored in gangways or stair wells.
Observe special regulations for aerosols!
Keep protected from direct sunlight and temperatures over 50°C.
Store in a well ventilated place.
Observe special storage conditions (in Germany, e.g., in accordance with the regulations in the "Betriebssicherheitsverordnung").

7.3 Specific end use(s)
No information available at present.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

GB	Chemical Name	Dimethyl ether		Content %:20-50
WEL-TWA: 400 ppm (766 mg/m3) (WEL), 1000 ppm (1920 mg/m3) (EU)		WEL-STEL: 500 ppm (958 mg/m3) (WEL)	---	
BMGV: ---		Other information: ---		

GB	Chemical Name	n-butyl acetate		Content %:20-40
WEL-TWA: 150 ppm (724 mg/m3)		WEL-STEL: 200 ppm (966 mg/m3)	---	
BMGV: ---		Other information: ---		

GB	Chemical Name	Acetone		Content %:10-20
WEL-TWA: 500 ppm (1210 mg/m3) (WEL, EU)		WEL-STEL: 1500 ppm (3620 mg/m3) (WEL)	---	
BMGV: ---		Other information: ---		

GB	Chemical Name	Butanone		Content %:10-20
WEL-TWA: 200 ppm (600 mg/m3) (WEL, EU)		WEL-STEL: 300 ppm (899 mg/m3) (WEL), 300 ppm (900 mg/m3) (EU)	---	

BMGV: 70 µmol butan-2-one/l in urine, post shift (BMGV)	Other information: Sk

GB WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period) EH40. AGW = "Arbeitsplatzgrenzwert" (workplace limit value, Germany). | WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period). | BMGV = Biological monitoring guidance value EH40. BGW = "Biologischer Grenzwert" (biological limit value, Germany) | Other information: Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage.
** = The exposure limit for this substance is repealed through the TRGS 900 (Germany) of January 2006 with the goal of revision.

Acetone

Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
Workers / employees	Human - dermal	Long term	DNEL	186	mg/kg bw/day	
Workers / employees	Human - inhalation	Short term	DNEL	2420	mg/m3	
Workers / employees	Human - inhalation	Long term	DNEL	1210	mg/m3	
Consumer	Human - oral	Long term	DNEL	62	mg/kg bw/day	
Consumer	Human - dermal	Long term	DNEL	62	mg/kg bw/day	
Consumer	Human - inhalation	Long term	DNEL	200	mg/m3	
	Environment - marine		PNEC	1,06	mg/l	
	Environment - freshwater		PNEC	10,6	mg/l	
	Environment - sediment, freshwater		PNEC	30,4	mg/l	
	Environment - sediment, marine		PNEC	3,04	mg/l	
	Environment - soil		PNEC	0,112	mg/l	
	Environment - sewage treatment plant		PNEC	19,5	mg/l	

Butanone

Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
Workers / employees	Human - dermal	Long term	DNEL	1161	mg/kg	
Workers / employees	Human - inhalation	Long term	DNEL	600	mg/m3	
Consumer	Human - dermal	Long term	DNEL	142	mg/kg	
Consumer	Human - inhalation	Long term	DNEL	106	mg/m3	
Consumer	Human - oral	Long term	DNEL	31	mg/kg	
	Environment - freshwater		PNEC	55,8	mg/l	
	Environment - marine		PNEC	55,8	mg/l	
	Environment - sediment, freshwater		PNEC	284,74	mg/kg	
	Environment - sediment, marine		PNEC	287,7	mg/kg	
	Environment - soil		PNEC	22,5	mg/kg	

Alkanes, C14-17, chloro

Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	6,7	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	47,9	mg/kg bw/day	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	2	mg/m3	
Consumer	Human - dermal	Long term, systemic effects	DNEL	28,72	mg/kg bw/day	

Consumer	Human - oral	Long term, systemic effects	DNEL	0,58	mg/kg bw/day	
	Environment - soil		PNEC	11,9	mg/kg dw	
	Environment - sediment, freshwater		PNEC	13	mg/kg dw	
	Environment - sediment, marine		PNEC	2,6	mg/kg dw	
	Environment - freshwater		PNEC	1	µg/l	
	Environment - marine		PNEC	0,2	µg/l	
	Environment - sewage treatment plant		PNEC	80	mg/l	

Dimethyl ether

Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	1894	mg/m3	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	471	mg/m3	
	Environment - freshwater		PNEC	0,155	mg/l	
	Environment - sediment, freshwater		PNEC	0,681	mg/kg	
	Environment - soil		PNEC	0,045	mg/kg	
	Environment - sewage treatment plant		PNEC	160	mg/l	
	Environment - marine		PNEC	0,016	mg/l	
	Environment - water, sporadic (intermittent) release		PNEC	1,549	mg/l	
	Environment - sediment, marine		PNEC	0,069	mg/kg	

n-butyl acetate

Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
Workers / employees	Human - inhalation	Short term, systemic effects	DNEL	960	mg/m3	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	480	mg/m3	
Consumer	Human - inhalation	Short term, systemic effects	DNEL	859,7	mg/m3	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	102,34	mg/m3	
	Environment - freshwater		PNEC	0,18	mg/l	
	Environment - marine		PNEC	0,018	mg/l	
	Environment - periodic release		PNEC	0,36	mg/l	
	Environment - sediment, freshwater		PNEC	0,981	mg/kg	
	Environment - sediment, marine		PNEC	0,0981	mg/kg	
	Environment - soil		PNEC	0,0903	mg/kg	
Workers / employees	Human - inhalation	Short term, local effects	DNEL	960	mg/m3	
Workers / employees	Human - inhalation	Long term, local effects	DNEL	480	mg/m3	
Consumer	Human - inhalation	Short term, local effects	DNEL	859,7	mg/m3	
Consumer	Human - inhalation	Long term, local effects	DNEL	102,34	mg/m3	

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Ensure good ventilation. This can be achieved by local suction or general air extraction.

If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn.
Applies only if maximum permissible exposure values are listed here.

8.2.2 Individual protection measures, such as personal protective equipment

General hygiene measures for the handling of chemicals are applicable.
Wash hands before breaks and at end of work.
Keep away from food, drink and animal feedingstuffs.
Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

Eye/face protection:
Tight fitting protective goggles with side protection (EN 166).

Skin protection - Hand protection:
Safety gloves made of butyl (EN 374)
Minimum layer thickness in mm:
>= 0,4
Permeation time (penetration time) in minutes:
> 240
Protective hand cream recommended.

Skin protection - Other:
Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments)

Respiratory protection:
If OES or MEL is exceeded.
Filter A2 P2 (EN 14387), code colour brown, white
In case of emergency:
Respiratory protection appliance (insulation device) (e.g. EN 137 or EN 138)
Observe wearing time limitations for respiratory protection equipment.

Thermal hazards:
If applicable, these are included in the individual protective measures (eye/face protection, skin protection, respiratory protection).

Additional information on hand protection - No tests have been performed.
In the case of mixtures, the selection has been made according to the knowledge available and the information about the contents.
Selection of materials derived from glove manufacturer's indications.
Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account.
Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer.
In the case of mixtures, the resistance of glove materials cannot be predicted and must therefore be tested before use.
The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

8.2.3 Environmental exposure controls

No information available at present.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state:	Aerosol, Substance: Liquid
Colour:	Yellow
Odour:	Characteristic
Odour threshold:	Not determined
pH-value:	Not determined
Melting point/freezing point:	Not determined
Initial boiling point and boiling range:	Not determined
Flash point:	-41 °C
Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined
Lower explosive limit:	2,7 Vol-%
Upper explosive limit:	18,6 Vol-%
Vapour pressure:	3100-4000 hPa
Vapour density (air = 1):	Vapours heavier than air.
Density:	0,795-0,79 g/ml
Bulk density:	n.a.

Solubility(ies):	Not determined
Water solubility:	Insoluble
Partition coefficient (n-octanol/water):	Not determined
Auto-ignition temperature:	235 °C (Ignition temperature)
Decomposition temperature:	Not determined
Viscosity:	Not determined
Explosive properties:	Not determined
Oxidising properties:	No

9.2 Other information

Miscibility:	Not determined
Fat solubility / solvent:	Not determined
Conductivity:	Not determined
Surface tension:	Not determined
Solvents content:	Not determined

SECTION 10: Stability and reactivity

10.1 Reactivity
See also Subsection 10.2 to 10.6.
The product has not been tested.

10.2 Chemical stability
See also Subsection 10.1 to 10.6.
Stable with proper storage and handling.

10.3 Possibility of hazardous reactions
See also Subsection 10.1 to 10.6.
No decomposition if used as intended.

10.4 Conditions to avoid
See also section 7.
Heating, open flame, ignition sources
Pressure increase will result in danger of bursting.

10.5 Incompatible materials
See also section 7.
Oxidizing agents

10.6 Hazardous decomposition products
See also Subsection 10.1 to 10.5.
See also section 5.2
No decomposition when used as directed.

SECTION 11: Toxicological information

Possibly more information on health effects, see Section 2.1 (classification).

Reifen-Reparatur-Spray 500 mL Art.: 3343						
Toxicity/effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by oral route:						n.d.a.
Acute toxicity, by dermal route:						n.d.a.
Acute toxicity, by inhalation:						n.d.a.
Skin corrosion/irritation:						n.d.a.
Serious eye damage/irritation:						n.d.a.
Respiratory or skin sensitisation:						n.d.a.
Germ cell mutagenicity:						n.d.a.
Carcinogenicity:						n.d.a.
Reproductive toxicity:						n.d.a.
Specific target organ toxicity - single exposure (STOT-SE):						n.d.a.
Specific target organ toxicity - repeated exposure (STOT-RE):						n.d.a.
Aspiration hazard:						n.d.a.
Respiratory tract irritation:						n.d.a.

Repeated dose toxicity:						n.d.a.
Symptoms:						n.d.a.
Other information:						Classification according to calculation procedure.

Dimethyl ether						
Toxicity/effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by inhalation:	LC50	164	mg/l/4h	Rat		
Germ cell mutagenicity:						Negative
Germ cell mutagenicity (in vitro):					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Germ cell mutagenicity (in vitro):					OECD 473 (In Vitro Mammalian Chromosome Aberration Test)	Negative
Germ cell mutagenicity (in vivo):					OECD 477 (Genetic Toxicology - Sex-Linked Recessive Lethal Test in Drosophilia melanogaster)	Negative
Carcinogenicity:						Negative
Reproductive toxicity:						Negative
Repeated dose toxicity:	NOAEC	47106	mg/m3	Rat	OECD 452 (Chronic Toxicity Studies)	Negative2a
Symptoms:						unconsciousness, headaches, mucous membrane irritation, dizziness nausea and vomiting.

n-butyl acetate						
Toxicity/effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by oral route:	LD50	10760	mg/kg	Rat	OECD 423 (Acute Oral Toxicity - Acute Toxic Class Method)	
Acute toxicity, by dermal route:	LD50	>14112	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:	LD50	23,4	mg/l/4h	Rat	OECD 403 (Acute Inhalation Toxicity)	Mist
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Not irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Not irritant
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	Not sensitizising
Symptoms:						dizziness, unconsciousness, headaches, drowsiness, mucous membrane irritation, dizziness nausea and vomiting.

Acetone						
Toxicity/effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by oral route:	LD50	5800	mg/kg	Rat		
Acute toxicity, by oral route:	LD50	3000	mg/kg	Mouse		
Acute toxicity, by dermal route:	LD50	20000	mg/kg	Rabbit		
Acute toxicity, by inhalation:	LC50	32	mg/m3	Rat		

Skin corrosion/irritation:						Slightly irritant Repeated exposure may cause skin dryness or cracking.
Serious eye damage/irritation:				Rabbit		Irritant
Respiratory or skin sensitisation:				Guinea pig		Not sensitizising
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Germ cell mutagenicity:					OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)	Negative
Carcinogenicity:						No indications of such an effect.
Symptoms:						unconsciousness, vomiting, headaches, gastrointestinal disturbances, fatigue, mucous membrane irritation, dizziness, nausea

Butanone						
Toxicity/effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by oral route:	LD50	>2600	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	5000	mg/kg	Rabbit		
Acute toxicity, by inhalation:	LC50	34,5	mg/l/4h	Rat		
Skin corrosion/irritation:						Mild irritant Repeated exposure may cause skin dryness or cracking.
Respiratory or skin sensitisation:						Not sensitizising
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Symptoms:						respiratory distress, dizziness, unconsciousness, drop in blood pressure, coughing, headaches, cramps, intoxication, drowsiness, mucous membrane irritation, dizziness nausea and vomiting., mental confusion

Alkanes, C14-17, chloro						
Toxicity/effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by oral route:	LD50	>2000	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	4000	mg/kg	Rat		
Skin corrosion/irritation:						Repeated exposure may cause skin dryness or cracking.
Serious eye damage/irritation:				Rabbit		Mild irritant (Analogous conclusion)
Serious eye damage/irritation:						Not irritant
Respiratory or skin sensitisation:						No indications of such an effect.

SECTION 12: Ecological information

Possibly more information on environmental effects, see Section 2.1 (classification).

Reifen-Reparatur-Spray 500 mL Art.: 3343							
Toxicity/effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**

Toxicity to fish:							n.d.a.
Toxicity to daphnia:							n.d.a.
Toxicity to algae:							n.d.a.
Persistence and degradability:							n.d.a.
Bioaccumulative potential:							n.d.a.
Mobility in soil:							Product is slightly volatile.
Results of PBT and vPvB assessment							n.d.a.
Other adverse effects:							n.d.a.
Other information:							Contains organically bound halogens, which may contribute to the AOX value in wastewater.

Dimethyl ether

Toxicity/effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to fish:	LC50	96h	3082	mg/l	Salmo gairdneri		
Toxicity to fish:	LC50	96h	2695	mg/l	Pimephales promelas		
Toxicity to fish:	LC50	96h	>4000	mg/l	Poecilia reticulata		
Toxicity to daphnia:	EC50	48h	>4000	mg/l	Daphnia magna		
Toxicity to algae:	EC0	96h	154,9	mg/l	Chlorella vulgaris	QSAR	
Persistence and degradability:		28d	5	%		OECD 301 D (Ready Biodegradability - Closed Bottle Test)	Not readily biodegradable
Bioaccumulative potential:	Log Pow		-0,07				Bioaccumulation is unlikely (LogPow < 1). 25°C (pH 7)
Mobility in soil:	H (Henry)		518,6	Pa*m3/ mol			No adsorption in soil.
Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Toxicity to bacteria:	EC10		>1600	mg/l	Pseudomonas putida		
Water solubility:			45,60	mg/l			25°C

n-butyl acetate

Toxicity/effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to fish:	LC50	96h	18	mg/l	Pimephales promelas	OECD 203 (Fish, Acute Toxicity Test)	
Toxicity to daphnia:	EC50	48h	44	mg/l	Daphnia magna		
Toxicity to algae:	EC50	72h	674	mg/l	Scenedesmus subspicatus		
Toxicity to algae:	NOEC/NOEL		200	mg/l	Desmodesmus subspicatus		
Persistence and degradability:		28d	83	%		OECD 301 D (Ready Biodegradability - Closed Bottle Test)	
Bioaccumulative potential:	Log Pow		1,81				
Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Toxicity to bacteria:	EC10		959	mg/l	Pseudomonas putida		
Water solubility:			5,3	g/l		OECD 105 (Water Solubility)	

Acetone

Toxicity/effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to fish:	LC50	96h	7500	mg/l	Leuciscus idus		
Toxicity to fish:	LC50	96h	5540-8300	mg/l	Lepomis macrochirus		
Toxicity to fish:	LC50	96h	5540	mg/l	Oncorhynchus mykiss		
Toxicity to daphnia:	EC50	48h	6100-12700	mg/l	Daphnia magna		
Toxicity to algae:	IC50	8d	7500	mg/l	Scenedesmus quadricauda		
Toxicity to algae:	NOEC/NOEL	48h	3400	mg/l	Pseudokirchneriella subcapitata		
Toxicity to algae:	EC50	96h	7500	mg/l	Selenastrum capricornutum		
Persistence and degradability:		28d	91	%		OECD 301 B (Ready Biodegradability - Co2 Evolution Test)	
Bioaccumulative potential:	BCF		0,19				
Bioaccumulative potential:	Log Pow		-0,24				
Mobility in soil:							No adsorption in soil.
Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Toxicity to bacteria:	EC5	8d	530	mg/l	Microcystis aeruginosa		
Toxicity to bacteria:	EC5	16h	1700	mg/l	Pseudomonas putida		
Other information:	BOD5		1900	mg/g			
Other information:	COD		2100	mg/g			
Other information:	AOX		0	%			

Butanone

Toxicity/effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to fish:	LC50	96h	1690	mg/l	Lepomis macrochirus		
Toxicity to daphnia:	EC50	48h	308	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
Toxicity to algae:	EbC50	16h	4300	mg/l	Scenedesmus subspicatus		
Toxicity to algae:	ErC50	96h	2029	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
Persistence and degradability:		28d	98	%		OECD 301 D (Ready Biodegradability - Closed Bottle Test)	Readily biodegradable
Bioaccumulative potential:	Log Pow		0,29				Bioaccumulation is unlikely (LogPow < 1).
Mobility in soil:	H (Henry)		0,0000244	atm*m3/mol			25°C
Other information:	BOD/COD		>50	%			
Other information:	BOD		>60	%			
Other information:	DOC		>70	%			

Alkanes, C14-17, chloro

Toxicity/effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
Toxicity to fish:	LC50	96h	>5000	mg/l	Alburnus alburnus		
Toxicity to daphnia:	EC50	48h	0,0059	mg/l	Daphnia magna		

Persistence and degradability:							Hardly biodegradable

SECTION 13: Disposal considerations

13.1 Waste treatment methods

For the substance / mixture / residual amounts

EC disposal code no.:
The waste codes are recommendations based on the scheduled use of this product.
Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances. (2001/118/EC, 2001/119/EC, 2001/573/EC)
16 05 04 gases in pressure containers (including halons) containing dangerous substances
Recommendation:
Pay attention to local and national official regulations
E.g. dispose at suitable refuse site.

For contaminated packing material

Pay attention to local and national official regulations
15 01 04 metallic packaging
15 01 10 packaging containing residues of or contaminated by dangerous substances
Recycling
Do not perforate, cut up or weld uncleaned container.

SECTION 14: Transport information

General statements

UN number: 1950

Transport by road/by rail (ADR/RID)


UN proper shipping name:
UN 1950 AEROSOLS
Transport hazard class(es): 2.1
Packing group: -
Classification code: 5F
LQ (ADR 2013): 1 L
LQ (ADR 2009): 2
Environmental hazards: environmentally hazardous
Tunnel restriction code: D

Transport by sea (IMDG-code)


UN proper shipping name:
AEROSOLS (ALKANES, C14-C17, CHLORO-)
Transport hazard class(es): 2.1
Packing group: -
EmS: F-D, S-U
Marine Pollutant: Yes
Environmental hazards: environmentally hazardous

Transport by air (IATA)

UN proper shipping name:
Aerosols, flammable
Transport hazard class(es): 2.1
Packing group: -
Environmental hazards: Not applicable

Special precautions for user

Persons employed in transporting dangerous goods must be trained.
All persons involved in transporting must observe safety regulations.
Precautions must be taken to prevent damage.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Freighted as packaged goods rather than in bulk, therefore not applicable.
Minimum amount regulations have not been taken into account.
Danger code and packing code on request.

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revised on / Version: 19.03.2014 / 0010
Replaces revision of / Version: 26.11.2012 / 0009
Valid from: 19.03.2014
PDF print date: 21.03.2014
Reifen-Reparatur-Spray 500 mL Art.: 3343

SECTION 15: Regulatory information

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

For classification and labelling see Section 2.
Observe restrictions: Yes
Comply with trade association/occupational health regulations.
Observe youth employment law (German regulation).
Regulation (EC) No 1907/2006, Annex XVII
VOC (1999/13/EC): ~ 92,3-93,6% w/w

15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

SECTION 16: Other information

These details refer to the product as it is delivered.
Revised sections: 2, 3, 8, 11, 12

Classification and processes used to derive the classification of the mixture in accordance with the ordinance (EG) 1272/2008 (CLP):

Classification in accordance with regulation (EC) No. 1272/2008 (CLP)	Evaluation method used
Eye Irrit. 2, H319	Classification according to calculation procedure.
Lact. Additional category, H362	Classification according to calculation procedure.
STOT SE 3, H336	Classification according to calculation procedure.
Aerosol 1, H222	Classification based on test data.
Aquatic Acute 1, H400	Classification based on test data.
Aquatic Chronic 1, H410	Classification according to calculation procedure.
Aerosol 1, H229	Classification based on test data.

The following phrases represent the posted R phrases / H phrases, Hazard Class and Risk Category Code (GHS/CLP) of the product and the constituents (specified in Section 2 and 3).
10 Flammable.
11 Highly flammable.
12 Extremely flammable.
36 Irritating to eyes.
50 Very toxic to aquatic organisms.
50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
53 May cause long-term adverse effects in the aquatic environment.
64 May cause harm to breastfed babies.
66 Repeated exposure may cause skin dryness or cracking.
67 Vapours may cause drowsiness and dizziness.
H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
H362 May cause harm to breast-fed children.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H220 Extremely flammable gas.

Eye Irrit. — Eye irritation
Lact. — Reproductive toxicity - effects on or via lactation
STOT SE — Specific target organ toxicity - single exposure - narcotic effects
Aerosol — Aerosols
Aquatic Chronic — Hazardous to the aquatic environment - chronic
Aquatic Acute — Hazardous to the aquatic environment - acute
Flam. Gas — Flammable gases (including chemically unstable gases)

Flam. Liq. — Flammable liquid

Any abbreviations and acronyms used in this document:

AC Article Categories
acc., acc. to according, according to
ACGIH American Conference of Governmental Industrial Hygienists
ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road)
AOEL Acceptable Operator Exposure Level
AOX Adsorbable organic halogen compounds
approx. approximately
Art., Art. no. Article number
ATE Acute Toxicity Estimate according to Regulation (EC) 1272/2008 (CLP)
BAM Bundesanstalt für Materialforschung und -prüfung (Federal Institute for Materials Research and Testing, Germany)
BAuA Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health and Safety, Germany)
BCF Bioconcentration factor
BGV Berufsgenossenschaftliche Vorschrift (= Accident Prevention Regulation)
BHT Butylhydroxytoluol (= 2,6-Di-t-butyl-4-methyl-phenol)
BMGV Biological monitoring guidance value (EH40, UK)
BOD Biochemical oxygen demand
BSEF Bromine Science and Environmental Forum
bw body weight
CAS Chemical Abstracts Service
CEC Coordinating European Council for the Development of Performance Tests for Fuels, Lubricants and Other Fluids
CESIO Comité Européen des Agents de Surface et de leurs Intermédiaires Organiques
CIPAC Collaborative International Pesticides Analytical Council
CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)
CMR carcinogenic, mutagenic, reproductive toxic
COD Chemical oxygen demand
CTFA Cosmetic, Toiletry, and Fragrance Association
DMEL Derived Minimum Effect Level
DNEL Derived No Effect Level
DOC Dissolved organic carbon
DT50 Dwell Time - 50% reduction of start concentration
DVS Deutscher Verband für Schweißen und verwandte Verfahren e.V. (= German Association for Welding and Allied Processes)
dw dry weight
e.g. for example (abbreviation of Latin 'exempli gratia'), for instance
EC European Community
ECHA European Chemicals Agency
EEA European Economic Area
EEC European Economic Community
EINECS European Inventory of Existing Commercial Chemical Substances
ELINCS European List of Notified Chemical Substances
EN European Norms
EPA United States Environmental Protection Agency (United States of America)
ERC Environmental Release Categories
ES Exposure scenario
etc. et cetera
EU European Union
EWC European Waste Catalogue
Fax. Fax number
gen. general
GHS Globally Harmonized System of Classification and Labelling of Chemicals
GWP Global warming potential
HET-CAM Hen's Egg Test - Chorionallantoic Membrane
HGWP Halocarbon Global Warming Potential
IARC International Agency for Research on Cancer
IATA International Air Transport Association
IBC Intermediate Bulk Container
IBC (Code) International Bulk Chemical (Code)
IC Inhibitory concentration

IMDG-code International Maritime Code for Dangerous Goods
incl. including, inclusive
IUCLID International Uniform ChemicaL Information Database
LC lethal concentration
LC50 lethal concentration 50 percent kill
LCLo lowest published lethal concentration
LD Lethal Dose of a chemical
LD50 Lethal Dose, 50% kill
LDLo Lethal Dose Low
LOAEL Lowest Observed Adverse Effect Level
LOEC Lowest Observed Effect Concentration
LOEL Lowest Observed Effect Level
LQ Limited Quantities
MARPOL International Convention for the Prevention of Marine Pollution from Ships
n.a. not applicable
n.av. not available
n.c. not checked
n.d.a. no data available
NIOSH National Institute of Occupational Safety and Health (United States of America)
NOAEC No Observed Adverse Effective Concentration
NOAEL No Observed Adverse Effect Level
NOEC No Observed Effect Concentration
NOEL No Observed Effect Level
ODP Ozone Depletion Potential
OECD Organisation for Economic Co-operation and Development
org. organic
PAH polycyclic aromatic hydrocarbon
PBT persistent, bioaccumulative and toxic
PC Chemical product category
PE Polyethylene
PNEC Predicted No Effect Concentration
POCP Photochemical ozone creation potential
ppm parts per million
PROC Process category
PTFE Polytetrafluorethylene
REACH Registration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals)
REACH-IT List-No. 9xx-xxx-x No. is automatically assigned, e.g. to pre-registrations without a CAS No. or other numerical identifier. List Numbers do not have any legal significance, rather they are purely technical identifiers for processing a submission via REACH-IT.
RID Règlement concernant le transport International ferroviaire de marchandises Dangereuses (= Regulation concerning the International Carriage of Dangerous Goods by Rail)
SADT Self-Accelerating Decomposition Temperature
SAR Structure Activity Relationship
SU Sector of use
SVHC Substances of Very High Concern
Tel. Telephone
ThOD Theoretical oxygen demand
TOC Total organic carbon
TRGS Technische Regeln für Gefahrstoffe (=Technical Regulations for Hazardous Substances)
UN RTDG United Nations Recommendations on the Transport of Dangerous Goods
VbF Verordnung über brennbare Flüssigkeiten (= Regulation for flammable liquids (Austria))
VOC Volatile organic compounds
vPvB very persistent and very bioaccumulative
WEL-TWA, WEL-STEL WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period), WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period) (EH40, UK).
WHO World Health Organization
wwt wet weight

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge.
No responsibility.
These statements were made by:
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