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

Inoxidations-Spray 400 ml
Art.: 6000

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

Relevant identified uses of the substance or mixture:
Lacquer spray

Uses advised against:
No information available at present.

1.3 Details of the supplier of the safety data sheet

LIQUI MOLY GmbH
Jerg-Wieland-Str. 4
89081 Ulm-Lehr
Tel.: (+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 number

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

Classification according to Regulation (EC) 1272/2008 (CLP)

Hazard class	Hazard category	Hazard statement
Eye Irrit.	2	H319-Causes serious eye irritation.
Skin Sens.	1	H317-May cause an allergic skin reaction.
STOT SE	3	H336-May cause drowsiness or dizziness.
Aerosol	1	H222-Extremely flammable aerosol.
Aerosol	1	H229-Pressurised container: May burst if heated.

2.2 Label elements

Labeling according to Regulation (EC) 1272/2008 (CLP)

Danger

H319-Causes serious eye irritation. H317-May cause an allergic skin reaction. H336-May cause drowsiness or dizziness. H222-Extremely flammable aerosol. 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.
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. P261-Avoid breathing vapours or spray. P271-Use only outdoors or in a well-ventilated area. P280-Wear eye protection / face protection.
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 CENTRE / doctor if you feel unwell.
P410+P412-Protect from sunlight. Do not expose to temperatures exceeding 50 °C.
P501-Dispose of contents / container to an approved waste disposal facility.

Without adequate ventilation, formation of explosive mixtures may be possible.
Acetone
Maleic anhydride
Fatty acids, tall-oil, esters with polyethylene glycol mono(hydrogen maleate), compds. with amides from diethylenetriamine and tall-oil fatty acids
2-methoxy-1-methylethyl acetate

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 (< 0,1 %).
The mixture does not contain any PBT substance (PBT = persistent, bioaccumulative, toxic) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).

SECTION 3: Composition/information on ingredients

Aerosol

3.1 Substance

n.a.

3.2 Mixture

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	67-64-1
content %	25-50
Classification according to Regulation (EC) 1272/2008 (CLP)	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336

Xylene	**Substance for which an EU exposure limit value applies.**
Registration number (REACH)	01-2119488216-32-XXXX
Index	601-022-00-9
EINECS, ELINCS, NLP	215-535-7
CAS	1330-20-7
content %	1-<10

Classification according to Regulation (EC) 1272/2008 (CLP)	Flam. Liq. 3, H226 Asp. Tox. 1, H304 Acute Tox. 4, H312 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Acute Tox. 4, H332 STOT SE 3, H335 STOT RE 2, H373

2-methoxy-1-methylethyl acetate	**Substance for which an EU exposure limit value applies.**
Registration number (REACH)	01-2119475791-29-XXXX
Index	607-195-00-7
EINECS, ELINCS, NLP	203-603-9
CAS	108-65-6
content %	1-<5
Classification according to Regulation (EC) 1272/2008 (CLP)	Flam. Liq. 3, H226 STOT SE 3, H336

Ethanol	**Substance with specific conc. limit(s) acc. to REACh-registration**
Registration number (REACH)	01-2119457610-43-XXXX
Index	603-002-00-5
EINECS, ELINCS, NLP	200-578-6
CAS	64-17-5
content %	1-5
Classification according to Regulation (EC) 1272/2008 (CLP)	Flam. Liq. 2, H225 Eye Irrit. 2, H319

Glycolic acid n-butyl ester	
Registration number (REACH)	01-2119514685-36-XXXX
Index	---
EINECS, ELINCS, NLP	230-991-7
CAS	7397-62-8
content %	0,1-<1
Classification according to Regulation (EC) 1272/2008 (CLP)	Eye Dam. 1, H318 Repr. 2, H361

Fatty acids, tall-oil, esters with polyethylene glycol mono(hydrogen maleate), compds. with amides from diethylenetriamine and tall-oil fatty acids	
Registration number (REACH)	---
Index	---
EINECS, ELINCS, NLP	---
CAS	222716-38-3
content %	0,1-<0,25
Classification according to Regulation (EC) 1272/2008 (CLP)	Acute Tox. 4, H302 Skin Irrit. 2, H315 Skin Sens. 1, H317 STOT RE 2, H373 (gastrointestinal tract, thymus) Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1) Eye Irrit. 2, H319

Maleic anhydride	
Registration number (REACH)	01-2119472428-31-XXXX
Index	607-096-00-9
EINECS, ELINCS, NLP	203-571-6
CAS	108-31-6
content %	<0,1

Classification according to Regulation (EC) 1272/2008 (CLP)	Acute Tox. 4, H302 Skin Corr. 1B, H314 Resp. Sens. 1, H334 Eye Dam. 1, H318 Skin Sens. 1A, H317 STOT RE 1, H372 (respiratory system) (as inhalation)

Impurities, test data and additional information may have been taken into account in classifying and labelling the product.
For the text of the H-phrases and classification codes (GHS/CLP), see Section 16.
The substances named in this section are given with their actual, appropriate classification!
For substances that are listed in appendix VI, table 3.1 of the regulation (EC) no. 1272/2008 (CLP regulation) this means that all notes that may be given here for the named classification have been taken into account.

SECTION 4: First aid measures

4.1 Description of first aid measures
First-aiders should ensure they are protected!
Never pour anything into the mouth of an unconscious person!

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.

Skin contact
Remove polluted, soaked clothing immediately, wash thoroughly with plenty of water and soap, in case of irritation of the skin (flare), consult a doctor.

Eye contact
Remove contact lenses.
Wash thoroughly for several minutes using copious water. Seek medical help if necessary.

Ingestion
Typically no exposure pathway.
Rinse the mouth thoroughly with water.
Do not induce vomiting - give copious water to drink. Consult doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed
If applicable delayed symptoms and effects can be found in section 11 and the absorption route in section 4.1.
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
Symptomatic treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing media
CO2
Extinction powder
Water jet spray
Alcohol resistant foam

Unsuitable extinguishing media
High volume water jet

5.2 Special hazards arising from the substance or mixture
In case of fire the following can develop:
Oxides of carbon
Toxic gases
Danger of bursting (explosion) when heated
Explosive vapour/air or gas/air mixtures.

5.3 Advice for firefighters
In case of fire and/or explosion do not breathe fumes.
Protective respirator with independent air supply.
According to size of fire

Full protection, if necessary.
Cool container at risk with water.
Dispose of contaminated extinction water according to official regulations.

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 contact with eyes or skin.
If applicable, caution - risk of slipping.

6.2 Environmental precautions
Prevent penetration into drains, cellars, working pits or other places in which accumulation could be hazardous.
Prevent surface and ground-water infiltration, as well as ground penetration.
If accidental entry into drainage system occurs, inform responsible authorities.

6.3 Methods and material for containment and cleaning up
If spray or gas escapes, ensure ample fresh air is available.
Without adequate ventilation, formation of explosive mixtures may be possible.
Active substance:
Soak up with absorbent material (e.g. universal binding agent, sand, diatomaceous earth) and dispose of according to Section 13.
Do not wash away with water or watery cleaning agents.

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.
Avoid inhalation of the vapours.
Avoid contact with eyes or skin.
Keep away from sources of ignition - Do not smoke.
Take measures against electrostatic charging, if appropriate.
Do not use on hot surfaces.
Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.
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.
Not to be stored in gangways or stair wells.
Store product closed and only in original packing.
Observe special regulations for aerosols!
Observe special storage conditions.
Do not store with flammable or self-igniting materials.
Keep protected from direct sunlight and temperatures over 50°C.
Store in a well-ventilated place.
Store cool.

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

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

GB Chemical Name	Acetone	Content %:25-50
WEL-TWA: 500 ppm (1210 mg/m3) (WEL, EU)	WEL-STEL: 1500 ppm (3620 mg/m3) (WEL)	---
Monitoring procedures:	- Compur - KITA-102 SA (548 534) - Compur - KITA-102 SC (548 550) - Compur - KITA-102 SD (551 109) - Draeger - Acetone 40/a (5) (81 03 381) - Draeger - Acetone 100/b (CH 22 901) - MTA/MA-031/A96 (Determination of ketones (acetone, methyl ethyl ketone, methyl isobutyl ketone) in air - Charcoal tube method / Gas chromatography) - 1996 - EU project BC/CEN/ENTR/000/2002-16 card 67-1 (2004) - MDHS 72 (Volatile organic compounds in air – Laboratory method using pumped solid sorbent tubes, thermal desorption and gas chromatography) - 1993	
BMGV: ---	Other information: ---	

GB Chemical Name	Xylene	Content %:1-<10
WEL-TWA: 220 mg/m3 (50 ppm) (WEL), 50 ppm (221 mg/m3) (EU)	WEL-STEL: 100 ppm (441 mg/m3 (WEL), 100 ppm (442 mg/m3) (EU)	---
Monitoring procedures:	- Compur - KITA-143 SA (550 325) - Compur - KITA-143 SB (505 998) - Draeger - Xylene 10/a (67 33 161) - MTA/MA-030/A92 (Determination of aromatic hydrocarbons (benzene, toluene, ethylbenzene, p-xylene, 1,2,4-trimethylbenzene) in air - Charcoal tube method / Gas chromatography) - 1992 - EU project BC/CEN/ENTR/000/2002-16 card 47-1 (2004)	
BMGV: 650 mmol methyl hippuric acid/mol creatinine in urine, post shift (Xylene, o-, m-, p- or mixed isomers) (BMGV)	Other information: Sk (WEL)	

GB Chemical Name	2-methoxy-1-methylethyl acetate	Content %:1-<5
WEL-TWA: 50 ppm (274 mg/m3) (WEL), 50 ppm (275 mg/m3) (EU)	WEL-STEL: 100 ppm (548 mg/m3) (WEL), 100 ppm (550 mg/m3) (EU)	---
Monitoring procedures:	MTA/MA-024/A92 (Determination of esters II (1-methoxy-2-propyl acetate, 2-ethoxyethyl acetate) in air - Charcoal tube method / Gas chromatography) - 1992 - EU - project BC/CEN/ENTR/000/2002-16 card 15-1 (2004)	
BMGV: ---	Other information: Sk (WEL)	

GB Chemical Name	Ethanol	Content %:1-5
WEL-TWA: 1000 ppm (1920 mg/m3)	WEL-STEL: ---	---
Monitoring procedures:	- Compur - KITA-104 SA (549 210) - Draeger - Alcohol 25/a Ethanol (81 01 631) - DFG (D) (Loesungsmittelgemische), Methode Nr. 6 DFG (E) (Solvent mixtures) - 1998, 2002 - EU project BC/CEN/ENTR/000/2002-16 card 63-2 (2004)	
BMGV: ---	Other information: ---	

GB Chemical Name	Maleic anhydride	Content %:<0,1
WEL-TWA: 1 mg/m3	WEL-STEL: 3 mg/m3	---
Monitoring procedures:	---	
BMGV: ---	Other information: Sen	

GB Chemical Name	Butane	Content %:
WEL-TWA: 600 ppm (1450 mg/m3)	WEL-STEL: 750 ppm (1810 mg/m3)	---
Monitoring procedures:	- Compur - KITA-221 SA (549 459)	
BMGV: ---	Other information: ---	

GB Chemical Name	n-butyl acetate	Content %:
WEL-TWA: 150 ppm (724 mg/m3)	WEL-STEL: 200 ppm (966 mg/m3)	---
Monitoring procedures:	- Compur - KITA-139 SB(C) (549 731) - Compur - KITA-138 U (548 857)	
BMGV: ---	Other information: ---	

GB Chemical Name	Propane	Content %:
WEL-TWA: 1000 ppm (ACGIH)	WEL-STEL: ---	---
Monitoring procedures:	- Compur - KITA-125 SA (549 954)	
BMGV: ---	Other information: ---	

GB Chemical Name	Isobutane	Content %:

WEL-TWA: 1000 ppm (EX) (ACGIH)	WEL-STEL: ---	---
Monitoring procedures: - Compur - KITA-113 SB(C) (549 368)		
BMGV: ---	Other information: ---	

Acetone

Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - marine		PNEC	1,06	mg/l	Assesment factor 500
	Environment - freshwater		PNEC	10,6	mg/l	Assesment factor 50
	Environment - sediment, freshwater		PNEC	30,4	mg/l	
	Environment - sediment, marine		PNEC	3,04	mg/l	
	Environment - soil		PNEC	29,5	mg/kg dw	
	Environment - sewage treatment plant		PNEC	19,5	mg/l	
	Environment - sporadic (intermittent) release		PNEC	21	mg/l	Assesment factor 100
	Environment - sewage treatment plant		PNEC	100	mg/l	
Consumer	Human - oral	Long term, systemic effects	DNEL	62	mg/kg bw/day	Overall assesment factor 2
Consumer	Human - dermal	Long term, systemic effects	DNEL	62	mg/kg bw/day	Overall assesment factor 20
Consumer	Human - inhalation	Long term, systemic effects	DNEL	200	mg/m3	Overall assesment factor 5
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	186	mg/kg bw/day	
Workers / employees	Human - inhalation	Short term, local effects	DNEL	2420	mg/m3	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	1210	mg/m3	

Xylene

Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - periodic release		PNEC	0,327	mg/l	
	Environment - sewage treatment plant		PNEC	6,58	mg/l	
	Environment - freshwater		PNEC	0,327	mg/l	
	Environment - marine		PNEC	0,327	mg/l	
	Environment - sediment, freshwater		PNEC	12,46	mg/kg dw	
	Environment - sediment, marine		PNEC	12,46	mg/kg dw	
	Environment - soil		PNEC	2,31	mg/kg dw	
	Environment - water, sporadic (intermittent) release		PNEC	0,327	mg/l	
Consumer	Human - inhalation	Short term, local effects	DNEL	174	mg/m3	
Consumer	Human - inhalation	Short term, systemic effects	DNEL	174	mg/m3	

Consumer	Human - inhalation	Long term, systemic effects	DNEL	14,8	mg/m3	
Consumer	Human - dermal	Long term, systemic effects	DNEL	108	mg/kg bw/day	
Consumer	Human - oral	Long term, systemic effects	DNEL	1,6	mg/kg bw/day	
Workers / employees	Human - inhalation	Short term, local effects	DNEL	289	mg/m3	
Workers / employees	Human - inhalation	Short term, systemic effects	DNEL	289	mg/m3	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	77	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	180	mg/kg bw/day	

2-methoxy-1-methylethyl acetate

Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	0,635	mg/l	
	Environment - marine		PNEC	0,0635	mg/l	
	Environment - sewage treatment plant		PNEC	100	mg/l	
	Environment - sediment, freshwater		PNEC	3,29	mg/kg	
	Environment - sediment, marine		PNEC	0,329	mg/kg	
	Environment - soil		PNEC	0,29	mg/kg	
	Environment - oral (animal feed)		PNEC	6,35	mg/l	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	153,5	mg/kg bw/day	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	50,132	mg/kg	

Ethanol

Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	0,96	mg/l	
	Environment - marine		PNEC	0,79	mg/l	
	Environment - water, sporadic (intermittent) release		PNEC	2,75	mg/l	
	Environment - sewage treatment plant		PNEC	580	mg/l	
	Environment - sediment, freshwater		PNEC	3,6	mg/kg	
	Environment - soil		PNEC	0,63	mg/kg dry weight	
	Environment - oral (animal feed)		PNEC	0,38	g/kg feed	
	Environment - sediment, marine		PNEC	2,9	mg/kg dry weight	
Consumer	Human - dermal	Short term, local effects	DNEL	950	mg/m3	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	114	mg/m3	
Consumer	Human - oral	Long term, systemic effects	DNEL	87	mg/kg	

Consumer	Human - dermal	Long term, systemic effects	DNEL	206	mg/kg bw/d	
Consumer	Human - inhalation	Short term, local effects	DNEL	950	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	343	mg/kg bw/d	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	950	mg/m3	
Workers / employees	Human - inhalation	Short term, local effects	DNEL	1900	mg/m3	

Glycolic acid n-butyl ester

Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - water		PNEC	0,05	mg/l	
	Environment - soil		PNEC	0,0112	mg/kg dw	
	Environment - sediment		PNEC	0,203	mg/kg dw	
	Environment - sewage treatment plant		PNEC	232	mg/l	
Consumer	Human - oral	Long term, systemic effects	DNEL	2	mg/kg bw/d	
Consumer	Human - dermal	Long term, systemic effects	DNEL	20,8	mg/kg bw/d	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	43,5	mg/m3	
Consumer	Human - dermal	Long term, local effects	DNEL	0,28	mg/cm2	
Consumer	Human - inhalation	Long term, local effects	DNEL	43,5	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	34	mg/kg bw/d	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	21,2	mg/m3	

Maleic anhydride

Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	0,04281	mg/l	
	Environment - marine		PNEC	0,004281	mg/l	
	Environment - water, sporadic (intermittent) release		PNEC	0,4281	mg/l	
	Environment - sewage treatment plant		PNEC	44,6	mg/l	
	Environment - sediment, freshwater		PNEC	0,334	mg/l	
	Environment - sediment, marine		PNEC	0,0334	mg/l	
	Environment - soil		PNEC	0,0415	mg/l	
Workers / employees	Human - dermal	Short term, systemic effects	DNEL	0,04	mg/kg body weight/day	
Workers / employees	Human - inhalation	Short term, systemic effects	DNEL	0,8	mg/m3	
Workers / employees	Human - dermal	Short term, local effects	DNEL	0,04	mg/cm2	
Workers / employees	Human - inhalation	Short term, local effects	DNEL	0,8	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	0,04	mg/kg	

Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	0,4	mg/m3	
Workers / employees	Human - dermal	Long term, local effects	DNEL	0,04	mg/kg body weight/day	
Workers / employees	Human - inhalation	Long term, local effects	DNEL	0,4	mg/m3	

n-butyl acetate						
Area of application	**Exposure route / Environmental compartment**	**Effect on health**	**Descriptor**	**Value**	**Unit**	**Note**
	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	
	Environment - sewage treatment plant		PNEC	35,6	mg/l	
Consumer	Human - dermal	Long term, systemic effects	DNEL	6	mg/kg bw/d	
Consumer	Human - inhalation	Short term, systemic effects	DNEL	300	mg/m3	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	35,7	mg/m3	
Consumer	Human - inhalation	Short term, local effects	DNEL	300	mg/m3	
Consumer	Human - inhalation	Long term, local effects	DNEL	35,7	mg/m3	
Consumer	Human - dermal	Short term, systemic effects	DNEL	6	mg/kg bw/day	
Consumer	Human - oral	Long term, systemic effects	DNEL	2	mg/kg bw/day	
Consumer	Human - oral	Short term, systemic effects	DNEL	2	mg/kg bw/day	
Workers / employees	Human - inhalation	Short term, systemic effects	DNEL	600	mg/m3	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	300	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	11	mg/kg bw/d	
Workers / employees	Human - dermal	Short term, systemic effects	DNEL	11	mg/kg bw/day	
Workers / employees	Human - inhalation	Short term, local effects	DNEL	600	mg/m3	
Workers / employees	Human - inhalation	Long term, local effects	DNEL	300	mg/m3	

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).
(8) = Inhalable fraction (2017/164/EU, 2017/2398/EU). (9) = Respirable fraction (2017/164/EU, 2017/2398/EU). | WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period).
(8) = Inhalable fraction (2017/164/EU, 2017/2398/EU). (9) = Respirable fraction (2017/164/EU, 2017/2398/EU). (10) = Short-term exposure limit value in relation to a reference period of 1 minute (2017/164/EU). | 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.

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.
Suitable assessment methods for reviewing the effectiveness of protection measures adopted include metrological and non-metrological investigative techniques.
These are specified by e.g. BS EN 14042.
BS EN 14042 "Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents".

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:
Chemical resistant protective gloves (EN 374).
Recommended
Protective nitrile gloves (EN 374).
With short-term contact:
Protective gloves in butyl rubber (EN 374).
Minimum layer thickness in mm:
0,7
Permeation time (penetration time) in minutes:
max. 15
The breakthrough times determined in accordance with EN 16523-1 were not obtained under practical conditions.
The recommended maximum wearing time is 50% of breakthrough time.
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
At high concentrations:
Respiratory protection appliance (insulation device) (e.g. EN 137 or EN 138)
Observe wearing time limitations for respiratory protection equipment.

Thermal hazards:
Not applicable

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. Active substance: liquid.

Colour:	According to specification
Odour:	Characteristic
Odour threshold:	Not determined
pH-value:	Not determined
Melting point/freezing point:	Not determined
Initial boiling point and boiling range:	-44,5 °C
Flash point:	Not determined
Evaporation rate:	n.a.
Flammability (solid, gas):	n.a.
Lower explosive limit:	1,7 Vol-%
Upper explosive limit:	13 Vol-%
Vapour pressure:	3600 hPa (20°C)
Vapour density (air = 1):	Not determined
Density:	Not determined
Bulk density:	n.a.
Solubility(ies):	Not determined
Water solubility:	Not miscible
Partition coefficient (n-octanol/water):	Not determined
Auto-ignition temperature:	365 °C (Ignition temperature)
Auto-ignition temperature:	No
Decomposition temperature:	Not determined
Viscosity:	Not determined
Explosive properties:	Product is not explosive. When using: development of explosive vapour/air mixture possible.
Oxidising properties:	Not determined

9.2 Other information

Miscibility:	Not determined
Fat solubility / solvent:	Not determined
Conductivity:	Not determined
Surface tension:	Not determined
Solvents content:	88,7 % (Organic solvents)

SECTION 10: Stability and reactivity

10.1 Reactivity
The product has not been tested.

10.2 Chemical stability
Stable with proper storage and handling.

10.3 Possibility of hazardous reactions
No dangerous reactions are known.

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

10.5 Incompatible materials
Avoid contact with strong oxidizing agents.
Avoid contact with strong alkalis.
Avoid contact with strong acids.

10.6 Hazardous decomposition products
No decomposition when used as directed.

SECTION 11: Toxicological information

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

Inoxidations-Spray 400 ml
Art.: 6000

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:						n.d.a.
Acute toxicity, by dermal route:	ATE	>2000	mg/kg			calculated value

Acute toxicity, by inhalation:	ATE	>20	mg/l/4h			calculated value, Vapours
Acute toxicity, by inhalation:	ATE	>5	mg/l/4h			calculated value, Aerosol
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.
Symptoms:						n.d.a.

Acetone

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	5800	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	>15800	mg/kg	Rat		
Acute toxicity, by inhalation:	LC50	76	mg/l/4h	Rat		
Skin corrosion/irritation:				Guinea pig		Repeated exposure may cause skin dryness or cracking., Not irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Eye Irrit. 2
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	Not sensitizising
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Germ cell mutagenicity:					OECD 473 (In Vitro Mammalian Chromosome Aberration Test)	Negative
Germ cell mutagenicity:					OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)	Negative
Symptoms:						unconsciousness, vomiting, headaches, gastrointestinal disturbances, fatigue, mucous membrane irritation, dizziness, nausea, drowsiness

Xylene

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	3523	mg/kg	Rat	Regulation (EC) 440/2008 B.1 (ACUTE ORAL TOXICITY)	
Acute toxicity, by dermal route:	LD50	12126	mg/kg	Rabbit		Does not conform with EU classification.

Acute toxicity, by inhalation:	LD50	27,6	mg/l/4h	Rat		Does not conform with EU classification., Vapours
Skin corrosion/irritation:						Irritant
Serious eye damage/irritation:						Irritant
Respiratory or skin sensitisation:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	No (skin contact)
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Carcinogenicity:						Negative
Reproductive toxicity:						Negative
Aspiration hazard:						Yes
Symptoms:						breathing difficulties, headaches, dizziness
Specific target organ toxicity - single exposure (STOT-SE), inhalative:						Irritation of the respiratory tract

2-methoxy-1-methylethyl acetate

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	>5000	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	
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)	No (skin contact)
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	No indications of such an effect.
Germ cell mutagenicity:					OECD 473 (In Vitro Mammalian Chromosome Aberration Test)	Negative
Specific target organ toxicity - single exposure (STOT-SE):						STOT SE 3, H336
Symptoms:						respiratory distress, drowsiness, unconsciousness, vomiting, headaches, mucous membrane irritation, dizziness, nausea

Ethanol

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	10470	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:	LC50	124,7	mg/l/4h	Rat	OECD 403 (Acute Inhalation Toxicity)	Vapours

Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Not irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Irritant
Respiratory or skin sensitisation:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	No (skin contact)
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative
Germ cell mutagenicity:				Mouse	OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)	Negative
Germ cell mutagenicity:					OECD 473 (In Vitro Mammalian Chromosome Aberration Test)	Negative
Germ cell mutagenicity:					OECD 475 (Mammalian Bone Marrow Chromosome Aberration Test)	Negative
Aspiration hazard:				Human being		No indications of such an effect.
Symptoms:						respiratory distress, drowsiness, unconsciousness, drop in blood pressure, vomiting, coughing, headaches, intoxication, drowsiness, mucous membrane irritation, dizziness, nausea
Other information:						Excessive alcohol consumption during pregnancy induces the foetus alcohol syndrome (reduced weight at birth, physical and mental disorders)., There is no sign that this syndrome is also caused by dermal or inhalative absorption., Experiences on persons.

Glycolic acid n-butyl ester						
Toxicity / effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**

Acute toxicity, by oral route:	LD50	4595	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by inhalation:	LC50	> 6,2	mg/l/4h	Rat		
Acute toxicity, by inhalation:	LC50	> 6,2	mg/l/4h	Rat	OECD 403 (Acute Inhalation Toxicity)	
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Not irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Risk of serious damage to eyes.
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	Not sensitizising
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Germ cell mutagenicity:					OECD 473 (In Vitro Mammalian Chromosome Aberration Test)	Negative
Germ cell mutagenicity:				Mouse	OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)	Negative
Reproductive toxicity:	NOAEL	250	mg/kg bw/d	Rat	OECD 414 (Prenatal Developmental Toxicity Study)	
Reproductive toxicity (Developmental toxicity):	NOAEL	1250	mg/kg bw/d	Rat	OECD 414 (Prenatal Developmental Toxicity Study)	Female
Aspiration hazard:						No

Maleic anhydride

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	1090	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	2620	mg/kg	Rabbit		
Acute toxicity, by inhalation:	LC50	>4,35	mg/l/4h	Mouse		
Skin corrosion/irritation:				Human being		Corrosive
Skin corrosion/irritation:				Rat		Corrosive
Serious eye damage/irritation:				Rabbit		Corrosive, Risk of serious damage to eyes.
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	Sensitising (skin contact)
Respiratory or skin sensitisation:				Rat		Sensitising (inhalation)
Germ cell mutagenicity:					bacterial	References, Negative
Carcinogenicity:	NOAEL	>100	mg/kg bw/d	Rat		oral
Reproductive toxicity:	NOAEC	650	mg/kg bw/d	Rat		

Symptoms:						asthmatic symptoms, breathing difficulties, respiratory distress, burning of the membranes of the nose and throat, blisters, coughing, headaches, gastrointestinal disturbances, mucous membrane irritation, watering eyes, nausea

Butane

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by inhalation:	LC50	658	mg/l/4h	Rat		
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Aspiration hazard:						No
Symptoms:						ataxia, breathing difficulties, drowsiness, unconsciousness, frostbite, disturbed heart rhythm, headaches, cramps, intoxication, 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:	LC50	21,1	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)	No (skin contact)
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Reproductive toxicity:	NOAEC	9640	mg/m3		OECD 416 (Two-generation Reproduction Toxicity Study)	Negative

Specific target organ toxicity - single exposure (STOT-SE):						Vapours may cause drowsiness and dizziness.
Specific target organ toxicity - repeated exposure (STOT-RE):						Negative
Symptoms:						drowsiness, unconsciousness, headaches, drowsiness, mucous membrane irritation, dizziness, nausea and vomiting.
Specific target organ toxicity - repeated exposure (STOT-RE), inhalat.:	NOAEC	500	ppm	Rat		
Other information:						Repeated exposure may cause skin dryness or cracking.

Propane						
Toxicity / effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by inhalation:	LC50	658	mg/l/4h	Rat		
Skin corrosion/irritation:						Not irritant
Serious eye damage/irritation:						Not irritant
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Reproductive toxicity (Developmental toxicity):	NOAEC	21,641	mg/l		OECD 422 (Combined Repeated Dose Tox. Study with the Reproduction/Developm. Tox. Screening Test)	
Aspiration hazard:						No
Symptoms:						breathing difficulties, unconsciousness, frostbite, headaches, cramps, mucous membrane irritation, dizziness, nausea and vomiting.

Isobutane						
Toxicity / effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by inhalation:	LC50	658	mg/l/4h	Rat		
Serious eye damage/irritation:				Rabbit		Not irritant
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Aspiration hazard:						No

Symptoms:						unconsciousness, frostbite, headaches, cramps, dizziness, nausea and vomiting.

SECTION 12: Ecological information

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

Inoxidations-Spray 400 ml
Art.: 6000

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:							n.d.a.
12.1. Toxicity to daphnia:							n.d.a.
12.1. Toxicity to algae:							n.d.a.
12.2. Persistence and degradability:							n.d.a.
12.3. Bioaccumulative potential:							n.d.a.
12.4. Mobility in soil:							n.d.a.
12.5. Results of PBT and vPvB assessment							n.d.a.
12.6. Other adverse effects:							n.d.a.

Acetone

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.2. Persistence and degradability:		28d	91	%		OECD 301 A (Ready Biodegradability - DOC Die-Away Test)	Readily biodegradable
12.1. Toxicity to fish:	LC50	96h	5540	mg/l	Oncorhynchus mykiss		
12.1. Toxicity to fish:	LC50	96h	7500	mg/l	Leuciscus idus		
12.1. Toxicity to daphnia:	EC50	48h	6100-12700	mg/l	Daphnia magna		
12.1. Toxicity to daphnia:	NOEC/NOEL	28d	2212	mg/l	Daphnia pulex	OECD 211 (Daphnia magna Reproduction Test)	
12.1. Toxicity to algae:	EC50	48h	4740	mg/l	Pseudokirchneriella subcapitata		
12.1. Toxicity to algae:	NOEC/NOEL	48h	3400	mg/l	Pseudokirchneriella subcapitata		
12.3. Bioaccumulative potential:	Log Pow		-0,24			OECD 107 (Partition Coefficient (n-octanol/water) - Shake Flask Method)	
12.3. Bioaccumulative potential:	BCF		0,19				
12.4. Mobility in soil:							No adsorption in soil.
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Toxicity to bacteria:	BOD/COD	16h	1700	mg/l	Pseudomonas putida		

Toxicity to bacteria:	EC10	30min	1000	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))	
Other information:	BOD5		1760-1900	mg/g			
Other information:	COD		2100	mg/g			
Other information:	AOX		0	%			

Xylene							
Toxicity / effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
12.1. Toxicity to algae:	IC50	72h	4,36	mg/l	Selenastrum capricornutum	OECD 201 (Alga, Growth Inhibition Test)	
12.1. Toxicity to fish:	LC50	96h	2,6	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	
12.2. Persistence and degradability:		28d	98	%		OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	Readily biodegradable
12.3. Bioaccumulative potential:	Log Kow		3,16				
12.3. Bioaccumulative potential:	BCF		25,9				
12.4. Mobility in soil:	H (Henry)		665	Pa*m3/mol			
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance

2-methoxy-1-methylethyl acetate							
Toxicity / effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
12.1. Toxicity to fish:	LC50	96h	100-180	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	>100	mg/l	Daphnia magna	OECD 211 (Daphnia magna Reproduction Test)	
12.1. Toxicity to daphnia:	EC50	48h	>500	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.2. Persistence and degradability:		28d	90	%		OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	Readily biodegradable
12.1. Toxicity to algae:	EC50	72h	>1000	mg/l	Selenastrum capricornutum	OECD 201 (Alga, Growth Inhibition Test)	
12.3. Bioaccumulative potential:	Log Kow		1,2				
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
12.4. Mobility in soil:	Koc		1,7				

Toxicity to bacteria:	EC10	30min	>1000	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))	

Ethanol

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.2. Persistence and degradability:		30d	80-85	%		OECD 301 D (Ready Biodegradability - Closed Bottle Test)	Readily biodegradable
12.1. Toxicity to fish:	NOEC/NOEL	120h	250	mg/l	Brachydanio rerio	OECD 212 (Fish, Short- term Toxicity Test on Embryo and Sac-fry Stages)	
12.1. Toxicity to fish:	LC50	96h	13000	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	LC50	48h	12340	mg/l	Daphnia magna		
12.1. Toxicity to daphnia:	NOEC/NOEL	10d	9,6	mg/l	Ceriodaphnia spec.		References
12.1. Toxicity to daphnia:	LC50	48h	5012	mg/l	Ceriodaphnia spec.		References
12.1. Toxicity to algae:	EC50	72h	275	mg/l	Chlorella vulgaris	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:		28d	97	%		OECD 301 B (Ready Biodegradability - Co2 Evolution Test)	Readily biodegradable
12.3. Bioaccumulative potential:	Log Pow		-0,32				Bioaccumulation is unlikely (LogPow < 1).
12.3. Bioaccumulative potential:	BCF		0,66 - 3,2				
Toxicity to bacteria:	IC50	3h	>1000	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))	Analogous conclusion
Other organisms:	NOEC/NOEL		280	mg/l	Lemna gibba	OECD 201 (Alga, Growth Inhibition Test)	

Glycolic acid n-butyl ester

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to daphnia:	EC50	24h	280	mg/l	Daphnia magna	DIN 38412 T.11	
12.1. Toxicity to algae:	EC50	7d	> 87,44	mg/l		OECD 221 (Lemna sp. Growth Inhibition Test)	
12.2. Persistence and degradability:		28d	82	%		OECD 301 B (Ready Biodegradability - Co2 Evolution Test)	

12.3. Bioaccumulative potential:	Log Pow		0,38				calculated value
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Toxicity to bacteria:	EC20	18h	2320	mg/l	Pseudomonas putida	DIN 38412 T.8	

Maleic anhydride

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	75	mg/l	Oncorhynchus mykiss		
12.1. Toxicity to daphnia:	EC50	48h	42,81	mg/l	Daphnia magna		
12.1. Toxicity to algae:	EC50	72h	74,32	mg/l	Pseudokirchneriella subcapitata		
12.2. Persistence and degradability:		7d	98	%		OECD 301 E (Ready Biodegradability - Modified OECD Screening Test)	Hydrolysis
12.3. Bioaccumulative potential:	Log Pow		-2,61				Not to be expected
12.4. Mobility in soil:	Koc		1				Not to be expected
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Toxicity to bacteria:	EC10	18h	44,6	mg/l	Pseudomonas putida	IUCLID Chem. Data Sheet (ESIS)	References

Butane

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	24,11	mg/l		QSAR	
12.1. Toxicity to daphnia:	LC50	48h	14,22	mg/l		QSAR	
12.3. Bioaccumulative potential:	Log Pow		2,98				A notable biological accumulation potential is not to be expected (LogPow 1-3).
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance

n-butyl acetate

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	18	mg/l	Pimephales promelas	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	EC50	48h	44	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	23	mg/l	Daphnia magna	OECD 211 (Daphnia magna Reproduction Test)	
12.1. Toxicity to algae:	EC50	72h	397	mg/l	Scenedesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	
12.1. Toxicity to algae:	NOEC/NOEL	72h	200	mg/l	Desmodesmus subspicatus		

12.2. Persistence and degradability:		28d	98	%		OECD 301 D (Ready Biodegradability - Closed Bottle Test)	Readily biodegradable
12.3. Bioaccumulative potential:	Log Pow		1,85-2,3				Low, Product floats on the water surface.
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Toxicity to bacteria:	EC10		959	mg/l	Pseudomonas putida		

Propane							
Toxicity / effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
12.3. Bioaccumulative potential:	Log Pow		2,28				A notable biological accumulation potential is not to be expected (LogPow 1-3).
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance

Isobutane							
Toxicity / effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
12.3. Bioaccumulative potential:							A notable biological accumulation potential is not to be expected (LogPow 1-3).
12.1. Toxicity to fish:	LC50	96h	27,98	mg/l			
12.1. Toxicity to algae:	EC50	96h	7,71	mg/l			
12.2. Persistence and degradability:							Readily biodegradable
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance

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. (2014/955/EU)
08 01 11 waste paint and varnish containing organic solvents or other hazardous substances
16 05 04 gases in pressure containers (including halons) containing hazardous substances
Recommendation:
Sewage disposal shall be discouraged.
Pay attention to local and national official regulations.
Take full aerosol cans to problem waste collection.
Take emptied aerosol cans to valuable material collection.

For contaminated packing material

Pay attention to local and national official regulations.
Recommendation:
Do not perforate, cut up or weld uncleaned container.
Recycling

15 01 04 metallic packaging

SECTION 14: Transport information

General statements

14.1. UN number: 1950

Transport by road/by rail (ADR/RID)

14.2. UN proper shipping name:
UN 1950 AEROSOLS

14.3. Transport hazard class(es): 2.1
14.4. Packing group: -
Classification code: 5F
LQ: 1 L
14.5. Environmental hazards: Not applicable
Tunnel restriction code: D

Transport by sea (IMDG-code)

14.2. UN proper shipping name:
AEROSOLS (ISOHEXANES)

14.3. Transport hazard class(es): 2.1
14.4. Packing group: -
EmS: F-D, S-U
Marine Pollutant: n.a
14.5. Environmental hazards: Not applicable

Transport by air (IATA)

14.2. UN proper shipping name:
Aerosols, flammable

14.3. Transport hazard class(es): 2.1
14.4. Packing group: -
14.5. Environmental hazards: Not applicable

14.6. 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.

14.7. Transport in bulk according to Annex II of MARPOL 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.
Comply with special provisions.

SECTION 15: Regulatory information

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

Observe restrictions:
Comply with national regulations/laws governing the protection of young people at work (national implementation of the Directive 94/33/EC)!
Comply with national regulations/laws governing maternity protection (national implementation of the Directive 92/85/EEC)!
Comply with trade association/occupational health regulations.

Directive 2012/18/EU ("Seveso III"), Annex I, Part 1 - The following categories apply to this product (others may also need to be considered according to storage, handling etc.):

Hazard categories	Notes to Annex I	Qualifying quantity (tonnes) of dangerous substances as referred to in Article 3(10) for the application of - Lower-tier requirements	Qualifying quantity (tonnes) of dangerous substances as referred to in Article 3(10) for the application of - Upper-tier requirements
P3a	11.1	150 (netto)	500 (netto)

The Notes to Annex 1 of Directive 2012/18/EU, in particular those named in the tables here and notes 1-6, must be taken into account when assigning categories and qualifying quantities.

Directive 2012/18/EU ("Seveso III"), Annex I, Part 2 - This product contains the substances listed below:

Entry Nr	Dangerous substances	Notes to Annex I	Qualifying quantity (tonnes) for the application of - Lower-tier requirements	Qualifying quantity (tonnes) for the application of - Upper-tier requirements
18	Liquefied flammable gases, Category 1 or 2 (including LPG) and natural gas	19	50	200

The Notes to Annex 1 of Directive 2012/18/EU, in particular those named in the tables here and notes 1-6, must be taken into account when assigning categories and qualifying quantities.

Directive 2010/75/EU (VOC): 88,65 %

Observe incident regulations.

15.2 Chemical safety assessment
A chemical safety assessment is not provided for mixtures.

SECTION 16: Other information

Revised sections: 9, 15
Employee training in handling dangerous goods is required.
These details refer to the product as it is delivered.
Employee instruction/training in handling hazardous materials is required.

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.
Skin Sens. 1, H317	Classification according to calculation procedure.
STOT SE 3, H336	Classification according to calculation procedure.
Aerosol 1, H222	Classification according to calculation procedure.
Aerosol 1, H229	Classification based on the form or physical state.

The following phrases represent the posted Hazard Class and Risk Category Code (GHS/CLP) of the product and the constituents (specified in Section 2 and 3).
H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H372 Causes damage to organs through prolonged or repeated exposure by inhalation.
H317 May cause an allergic skin reaction.
H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H312 Harmful in contact with skin.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H361 Suspected of damaging fertility or the unborn child.
H373 May cause damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.

Eye Irrit. — Eye irritation
Skin Sens. — Skin sensitization
STOT SE — Specific target organ toxicity - single exposure - narcotic effects
Aerosol — Aerosols
Flam. Liq. — Flammable liquid
Asp. Tox. — Aspiration hazard
Acute Tox. — Acute toxicity - dermal
Skin Irrit. — Skin irritation
Acute Tox. — Acute toxicity - inhalation
STOT SE — Specific target organ toxicity - single exposure - respiratory tract irritation
STOT RE — Specific target organ toxicity - repeated exposure
Eye Dam. — Serious eye damage
Repr. — Reproductive toxicity
Acute Tox. — Acute toxicity - oral
Aquatic Acute — Hazardous to the aquatic environment - acute
Aquatic Chronic — Hazardous to the aquatic environment - chronic
Skin Corr. — Skin corrosion
Resp. Sens. — Respiratory sensitization

Any abbreviations and acronyms used in this document:

acc., acc. to according, according to
ADR Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road)
AOX Adsorbable organic halogen compounds
approx. approximately
Art., Art. no. Article number
ASTM ASTM International (American Society for Testing and Materials)
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)
BSEF The International Bromine Council
bw body weight
CAS Chemical Abstracts Service
CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)
CMR carcinogenic, mutagenic, reproductive toxic
DMEL Derived Minimum Effect Level
DNEL Derived No Effect Level
dw dry weight
e.g. for example (abbreviation of Latin 'exempli gratia'), for instance
EC European Community
ECHA European Chemicals Agency
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)
etc. et cetera
EU European Union
EVAL Ethylene-vinyl alcohol copolymer
Fax. Fax number
gen. general
GHS Globally Harmonized System of Classification and Labelling of Chemicals
GWP Global warming potential
IARC International Agency for Research on Cancer
IATA International Air Transport Association
IBC (Code) International Bulk Chemical (Code)
IMDG-code International Maritime Code for Dangerous Goods
incl. including, inclusive
IUCLID International Uniform Chemical Information Database
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
OECD Organisation for Economic Co-operation and Development
org. organic
PBT persistent, bioaccumulative and toxic
PE Polyethylene
PNEC Predicted No Effect Concentration
ppm parts per million
PVC Polyvinylchloride
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)
SVHC Substances of Very High Concern
Tel. Telephone
UN RTDG United Nations Recommendations on the Transport of Dangerous Goods
VOC Volatile organic compounds
vPvB very persistent and very bioaccumulative
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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