

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 16.02.2024

Version number 12 (replaces version 11)

Revision: 16.02.2024

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

1.1 Product identifier

Trade name: **LETTERING GLOSS SPRAY**

Article number: 11073

UFI: 46H9-80RV-A00R-19VX

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

No further relevant information available.

Application of the substance / the mixture

Clear coating material, Varnish

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier: AKEMI chemisch technische Spezialfabrik GmbH
 Lechstrasse 28
 D 90451 Nürnberg

Tel. +49(0)911-642960
 Fax. +49(0)911-644456
 e-mail info@akemi.de

Further information obtainable from:

Laboratory

1.4 Emergency telephone number:

Product Safety Department AKEMI chemisch technische Spezialfabrik GmbH
 Tel. +49(0)911-64296-59
 Reachable during the following office hours:
 Monday – Thursday from 07:30 a.m. to 16:30 p.m.
 Friday from 07:30 a.m. to 13:30 p.m.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Aerosol 1 H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.

Eye Irrit. 2 H319 Causes serious eye irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

Hazard pictograms

The product is classified and labelled according to the CLP regulation.



GHS02 GHS07

Signal word

Danger

Hazard-determining components of labelling:

acetone
 Hydrocarbons, C9, aromatics
 2-methoxy-1-methylethyl acetate
 n-butyl acetate

Hazard statements

H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.
 H319 Causes serious eye irritation.
 H336 May cause drowsiness or dizziness.
 H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P101 If medical advice is needed, have product container or label at hand.
 P102 Keep out of reach of children.
 P103 Read carefully and follow all instructions.

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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 spray.
P280	Wear protective gloves / eye 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 CENTER/doctor if you feel unwell.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.
· <u>Additional information:</u>	EUH066 Repeated exposure may cause skin dryness or cracking. Buildup of explosive mixtures possible without sufficient ventilation.

2.3 Other hazards· Results of PBT and vPvB assessment· PBT: Not applicable.· vPvB: Not applicable.**SECTION 3: Composition/information on ingredients****3.2 Mixtures**· Description: Mixture of substances listed below with nonhazardous additions.· Dangerous components:

CAS: 67-64-1 EINECS: 200-662-2 Index number: 606-001-00-8 Reg.nr.: 01-2119471330-49	acetone Flam. Liq. 2, H225 Eye Irrit. 2, H319; STOT SE 3, H336 EUH066	25-50%
CAS: 74-98-6 EINECS: 200-827-9 Index number: 601-003-00-5 Reg.nr.: 01-2119486944-21	propane Flam. Gas 1A, H220 Press. Gas (Comp.), H280	12.5-25%
CAS: 106-97-8 EINECS: 203-448-7 Index number: 601-004-00-0 Reg.nr.: 01-2119474691-32	butane, pure Flam. Gas 1A, H220 Press. Gas (Comp.), H280	12.5-25%
CAS: 108-65-6 EINECS: 203-603-9 Index number: 607-195-00-7 Reg.nr.: 01-2119475791-29	2-methoxy-1-methylethyl acetate Flam. Liq. 3, H226 STOT SE 3, H336	<10%
CAS: 75-28-5 EINECS: 200-857-2 Index number: 601-004-00-0 Reg.nr.: 01-2119485395-27	isobutane Flam. Gas 1A, H220 Press. Gas (Comp.), H280	<10%

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EC number: 918-668-5 Index number: 649-356-00-4 Reg.nr.: 01-2119455851-35	Hydrocarbons, C9, aromatics Flam. Liq. 3, H226 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 STOT SE 3, H335-H336 EUH066	<10%
EC number: 905-588-0 Index number: 601-022-00-9 Reg.nr.: 01-2119488216-32 01-2119486136-34	reaction mass of ethylbenzole and xylene Flam. Liq. 3, H226 STOT RE 2, H373; Asp. Tox. 1, H304 Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	<10%
CAS: 123-86-4 EINECS: 204-658-1 Index number: 607-025-00-1 Reg.nr.: 01-2119485493-29	n-butyl acetate Flam. Liq. 3, H226 STOT SE 3, H336 EUH066	1-5%

· Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures**4.1 Description of first aid measures**

- General information: Immediately remove any clothing soiled by the product.
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Clean with water and soap. If possible, also wash with polyethylene glycol 400.
- After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- After swallowing: Drink plenty of water and provide fresh air. Call for a doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed

Breathing difficulty
Headache
Dizziness
Dizziness
Coughing
Profuse sweating
Nausea

· Hazards

Danger of impaired breathing.

4.3 Indication of any immediate medical attention and special treatment needed

If swallowed, gastric irrigation with added, activated carbon.
If swallowed or in case of vomiting, danger of entering the lungs.

SECTION 5: Firefighting measures**5.1 Extinguishing media**

- Suitable extinguishing agents: CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- For safety reasons unsuitable extinguishing agents: Water with full jet

5.2 Special hazards arising from the substance or mixture

In case of fire, the following can be released:
Carbon monoxide (CO)
Formation of toxic gases is possible during heating or in case of fire.

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- **5.3 Advice for firefighters**

- Protective equipment: Wear self-contained respiratory protective device.

SECTION 6: Accidental release measures

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

Wear protective equipment. Keep unprotected persons away.

- **6.2 Environmental precautions:**

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow product to reach sewage system or any water course.

Do not allow to enter sewers/ surface or ground water.

- **6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose of the material collected according to regulations.

Do not flush with water or aqueous cleansing agents

Ensure adequate ventilation.

Dispose contaminated material as waste according to section 13.

- **6.4 Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**

Keep away from heat and direct sunlight.

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

- Information about fire - and explosion protection:

Fumes can combine with air to form an explosive mixture.

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.

Do not spray onto a naked flame or any incandescent material.

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

- Storage:

- Requirements to be met by storerooms and receptacles:

Store in a cool location.

Observe official regulations on storing packagings with pressurised containers.

- Information about storage in one common storage facility:

Not required.

- Further information about storage conditions:

Keep container tightly sealed.

Do not seal receptacle gas tight.

Store in cool, dry conditions in well sealed receptacles.

Protect from heat and direct sunlight.

- Storage class:

2 B

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

No further relevant information available.

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SECTION 8: Exposure controls/personal protection**8.1 Control parameters**

· Ingredients with limit values that require monitoring at the workplace:

67-64-1 acetoneIOELV Long-term value: 1210 mg/m³, 500 ppm**108-65-6 2-methoxy-1-methylethyl acetate**IOELV Short-term value: 550 mg/m³, 100 ppm
Long-term value: 275 mg/m³, 50 ppm
Skin**reaction mass of ethylbenzole and xylene**AGW Short-term value: 442 mg/m³, 100 ppm
Long-term value: 221 mg/m³, 50 ppm
H**123-86-4 n-butyl acetate**IOELV Short-term value: 723 mg/m³, 150 ppm
Long-term value: 241 mg/m³, 50 ppm

· DNELs

67-64-1 acetone

Oral	DNEL (Langzeit-wiederholt)	62 mg/kg bw/day (BEV)
Dermal	DNEL (Langzeit-wiederholt)	186 mg/kg bw/day (ARB)
		62 mg/kg bw/day (BEV)
Inhalative	DNEL (Kurzzeit-akut)	2,420 mg/m ³ Air (ARB)
	DNEL (Langzeit-wiederholt)	1,210 mg/m ³ Air (ARB)
		200 mg/m ³ Air (BEV)

108-65-6 2-methoxy-1-methylethyl acetate

Oral	DNEL (Kurzzeit-akut)	500 mg/kg bw/day (BEV)
	DNEL (Langzeit-wiederholt)	1.67 mg/kg bw/day (BEV)
Dermal	DNEL (Langzeit-wiederholt)	153.5 mg/kg bw/day (ARB)
		54.8 mg/kg bw/day (BEV)
Inhalative	DNEL (Kurzzeit-akut)	550 mg/m ³ Air (ARB)
		33 mg/m ³ Air (BEV)
	DNEL (Langzeit-wiederholt)	275 mg/m ³ Air (ARB)
		33 mg/m ³ Air (BEV)

Hydrocarbons, C9, aromatics

Oral	DNEL (Langzeit-wiederholt)	11 mg/kg bw/day (BEV)
Dermal	DNEL (Langzeit-wiederholt)	25 mg/kg bw/day (ARB)
		11 mg/kg bw/day (BEV)
Inhalative	DNEL (Langzeit-wiederholt)	150 mg/m ³ Air (ARB)
		32 mg/m ³ Air (BEV)

reaction mass of ethylbenzole and xylene

Oral	DNEL (Langzeit-wiederholt)	1.6 mg/kg bw/day (BEV)
Dermal	DNEL (Langzeit-wiederholt)	180-212 mg/kg bw/day (ARB)
		108 mg/kg bw/day (BEV)
Inhalative	DNEL (Kurzzeit-akut)	289-442 mg/m ³ Air (ARB)
		260 mg/m ³ Air (BEV)

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	DNEL (Langzeit-wiederholt)	211-221 mg/m ³ Air (ARB) 14.8-65.3 mg/m ³ Air (BEV)
123-86-4 n-butyl acetate		
Oral	DNEL (Kurzzeit-akut)	2 mg/kg bw/day (BEV)
Dermal	DNEL (Langzeit-wiederholt)	2 mg/kg bw/day (BEV)
	DNEL (Kurzzeit-akut)	11 mg/kg bw/day (ARB) 6 mg/kg bw/day (BEV)
Inhalative	DNEL (Langzeit-wiederholt)	11 mg/kg bw/day (ARB) 6 mg/kg bw/day (BEV)
	DNEL (Kurzzeit-akut)	600 mg/m ³ Air (ARB) 300 mg/m ³ Air (BEV)
	DNEL (Langzeit-wiederholt)	48-300 mg/m ³ Air (ARB) 12-35.7 mg/m ³ Air (BEV)

· PNECs

67-64-1 acetone

PNEC (wässrig)	100 mg/l (KA)
	1.06 mg/l (MW)
	10.6 mg/l (SW)
	21 mg/l (WAS)
PNEC (fest)	29.5 mg/kg Trockengew (BO)
	3.04 mg/kg Trockengew (MWS)
	30.4 mg/kg Trockengew (SWS)

108-65-6 2-methoxy-1-methylethyl acetate

PNEC (wässrig)	100 mg/l (KA)
	0.0635 mg/l (MW)
	0.635 mg/l (SW)
	6.35 mg/l (WAS)
PNEC (fest)	0.29 mg/kg Trockengew (BO)
	0.329 mg/kg Trockengew (MWS)
	3.29 mg/kg Trockengew (SWS)

reaction mass of ethylbenzole and xylene

PNEC (wässrig)	6.58 mg/l (KA)
	0.327 mg/l (MW)
	0.327 mg/l (SW)
	0.327 mg/l (WAS)
PNEC (fest)	2.31 mg/kg Trockengew (BO)
	12.46 mg/kg Trockengew (MWS)
	12.46 mg/kg Trockengew (SWS)

123-86-4 n-butyl acetate

PNEC (wässrig)	35.6 mg/l (KA)
	0.018 mg/l (MW)
	0.18 mg/l (SW)
	0.36 mg/l (WAS)
PNEC (fest)	0.0903 mg/kg Trockengew (BO)
	0.0981 mg/kg Trockengew (MWS)
	0.981 mg/kg Trockengew (SWS)

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- Additional information: The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- Appropriate engineering controls No further data; see section 7.
- Individual protection measures, such as personal protective equipment
- General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.
 Keep away from foodstuffs, beverages and feed.
 Immediately remove all soiled and contaminated clothing
 Wash hands before breaks and at the end of work.
 Avoid contact with the eyes and skin.
 Do not inhale gases / fumes / aerosols.
 Do not eat, drink, smoke or sniff while working.
 Use skin protection cream for skin protection.
 Clean skin thoroughly immediately after handling the product.
- Respiratory protection:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
 Short term filter device:
 Filter A/P2
- Hand protection



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
 Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
 Preventive skin protection by use of skin-protecting agents is recommended.
 After use of gloves apply skin-cleaning agents and skin cosmetics.
 The protection gloves to be used have to comply with the specifications of the directive 89/686/EC and the directive derived decree EN374, respectively, e.g. the above listed protection glove type.
 The mentioned permeation times' data were generated and verified with material samples of the recommended protection glove type in the scope of laboratory analyses of the company KCL GmbH in compliance with EN374.
 This recommendation refers exclusively to the material safety data sheet referenced product delivered by Akemi and the indicated field of application. In case of product dilution or in case of mixture with different substances or chemicals, and in condition of EN374 deviation the producer of CE-approved protection gloves must be contacted for detailed information (e.g., KCL GmbH, Germany, 36124 Eichenzell, internet: <http://www.kcl.de>).
- Material of gloves Butyl rubber, BR
 The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- Penetration time of glove material The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
 Value for the permeation: Level ≤ 1, 10 min
- As protection from splashes gloves made of the following materials are suitable: Butyl rubber, BR
 Butoject (KCL, Art_No. 897, 898)
- Not suitable are gloves made of the following materials: Chloroprene rubber, CR
 Leather gloves
 Strong material gloves

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· Eye/face protection

Tightly sealed goggles

· Body protection:

Protective work clothing

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

· <u>Colour:</u>	Colourless
· <u>Odour:</u>	Specific type
· <u>Melting point/freezing point:</u>	Undetermined.
· <u>Boiling point or initial boiling point and boiling range</u>	Not applicable, as aerosol.
· <u>Lower and upper explosion limit</u>	
· <u>Lower:</u>	1.5 Vol %
· <u>Upper:</u>	13 Vol %
· <u>Flash point:</u>	Not applicable, as aerosol.
· <u>Auto-ignition temperature:</u>	333 °C
· <u>pH</u>	Not determined.
	Not applicable
· <u>Viscosity:</u>	
· <u>Kinematic viscosity</u>	Not determined.
	Not applicable
· <u>Dynamic:</u>	Not determined.
	Not applicable
· <u>Solubility</u>	
· <u>water:</u>	Not miscible or difficult to mix.
· <u>Vapour pressure at 20 °C:</u>	8,300 hPa
· <u>Vapour pressure at 50 °C:</u>	800 hPa
· <u>Density and/or relative density</u>	
· <u>Density at 20 °C:</u>	0.7 g/cm ³

9.2 Other information

· <u>Appearance:</u>	
· <u>Form:</u>	Aerosol
· <u>Important information on protection of health and environment, and on safety.</u>	
· <u>Ignition temperature:</u>	Product is not selfigniting.
· <u>Explosive properties:</u>	In use, may form flammable/explosive vapour-air mixture.
· <u>Solvent content:</u>	
· <u>Organic solvents:</u>	82.5 %
· <u>Solids content:</u>	10.6 %

Information with regard to physical hazard classes

· <u>Explosives</u>	Void
· <u>Flammable gases</u>	Void
· <u>Aerosols</u>	Extremely flammable aerosol. Pressurised container: May burst if heated.
· <u>Oxidising gases</u>	Void
· <u>Gases under pressure</u>	Void
· <u>Flammable liquids</u>	Void
· <u>Flammable solids</u>	Void
· <u>Self-reactive substances and mixtures</u>	Void
· <u>Pyrophoric liquids</u>	Void
· <u>Pyrophoric solids</u>	Void

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· Self-heating substances and mixtures	Void
· Substances and mixtures, which emit flammable gases in contact with water	Void
· Oxidising liquids	Void
· Oxidising solids	Void
· Organic peroxides	Void
· Corrosive to metals	Void
· Desensitised explosives	Void

SECTION 10: Stability and reactivity

· 10.1 Reactivity	No further relevant information available.
· 10.2 Chemical stability	
· Thermal decomposition / conditions to be avoided:	No decomposition if used according to specifications.
· 10.3 Possibility of hazardous reactions	No dangerous reactions known.
· 10.4 Conditions to avoid	No further relevant information available.
· 10.5 Incompatible materials:	No further relevant information available.
· 10.6 Hazardous decomposition products:	No dangerous decomposition products known.

SECTION 11: Toxicological information

· 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008	
· Acute toxicity	Based on available data, the classification criteria are not met.

· LD/LC50 values relevant for classification:

67-64-1 acetone

Oral	LD50	5,800 mg/kg (rat) (OECD 401)
	NOEL	900 mg/kg (rat)
Dermal	LD50	15,688 mg/kg (rat)
		7,426-15,800 mg/kg (rabbit)
Inhalative	LC50/4 h	76 mg/l (rat)
	NOAEL	22,500 mg/m ³ (rat)
	LC50/48h	8,450 mg/l (crustaceans) 2,262 mg/l (daphnia magna)

74-98-6 propane

Inhalative	LC50/4 h	>20 mg/l (rat)
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106-97-8 butane, pure

Inhalative	LC50/4 h	658 mg/l (rat)
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108-65-6 2-methoxy-1-methylethyl acetate

Oral	LD50	8,500 mg/kg (rat) (OECD 401)
	NOAEL-Werte	1,500 mg/kg (rat)
Dermal	LD50	>5,000 mg/kg (rabbit) (OECD 402)
		>2,000 mg/kg (rat)
Inhalative	LC50/4h	>10,000 mg/m ³ (rat)
	LC50	>23.8 mg/l (rat)
	LC50/4 h	35.7 mg/l (rat)
	LC50/48h	100 mg/l (Desmodismus subspicatus)

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75-28-5 isobutane

Inhalative LC50/4 h >50 mg/l (rat)

Hydrocarbons, C9, aromatics

Oral LD50 3,595 mg/kg (rat) (OECD 401)

Dermal LD50 >3,160 mg/kg (rabbit) (OECD 402)

Inhalative LC50/4 h >6,193 mg/l (rat)

reaction mass of ethylbenzole and xylene

Oral LD50 3,523 mg/kg (rat)

NOAEL-Werte 250 mg/kg (rat)

Dermal LD50 12,126 mg/kg (rabbit)

Inhalative LC50/4h 29,000 mg/m³ (rat)

LC50/4 h 27.124 mg/l (rat)

123-86-4 n-butyl acetate

Oral LD50 10,760 mg/kg (rat) (OECD 423)

Dermal LD50 >14,112 mg/kg (rabbit) (OECD 402)

Inhalative LC50/4 h 23.4 mg/l (rat) (OECD 403)

LC50 390 mg/m³ (rat)

LC50/48h 64 mg/l (Brachydanio rerio)

- Skin corrosion/irritation Based on available data, the classification criteria are not met.
- Serious eye damage/irritation Causes serious eye irritation.
- Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- Germ cell mutagenicity Based on available data, the classification criteria are not met.
- Carcinogenicity Based on available data, the classification criteria are not met.
- Reproductive toxicity Based on available data, the classification criteria are not met.
- STOT-single exposure May cause drowsiness or dizziness.
- STOT-repeated exposure Based on available data, the classification criteria are not met.
- Aspiration hazard Based on available data, the classification criteria are not met.

· 11.2 Information on other hazards

- Endocrine disrupting properties

None of the ingredients is listed.

SECTION 12: Ecological information**· 12.1 Toxicity**

- Aquatic toxicity:

67-64-1 acetone

EC50/96h	7,200 mg/l (algae)
	8,300 mg/l (piscis)
	8,300 mg/l (lepomis macrochirus)
	7,500 mg/l (selenastrum capricornutum)
EC50	1,700 mg/l (bacteria)
LC50	6,368 mg/l (piscis)
LC50/24h	8,800 mg/l (daphnia)
EC5/16h	1,700 mg/l (pseudomonas putida)
EC5/72h	28 mg/l (Entosiphon sulcatum)
EC5/8d	530 mg/l (microorganisms)
IC5/8d	7,500 mg/l (Scenedesmus quadricauda)

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EC50/48h	3,400 mg/l (algae) 8,800 mg/l (daphnia magna)
NOEC	1,700 mg/kg (pseudomonas putida) 4,740 mg/kg (selenastrum capricornutum)
NOELR/28d	2,212 mg/l (daphnia magna)
EC50/48h	12,600 mg/l (Danio rerio.) 8,800 mg/l (daphnia magna)
LC50/96h	8,300 mg/l (Iem) 8,300 mg/l (Iepomis macrochirus) 7,500 mg/l (Leuciscus idus) 5,540 mg/l (Oncorhynchus mykiss) 8,120 mg/l (Pimephales promelas)

108-65-6 2-methoxy-1-methylethyl acetate

EC50	>100 mg/l (daphnia magna)
LC50	63.5 mg/l (Oryzias latipes)
EC50/48h	>500 mg/l (daphnia magna) (RL 67/548/EWG. Anhang V, C.2.)
ErC50/72h	>1,000 mg/l (Pseudokirchneriella subcapitata) (OECD 201)
EC20/0.5h	>1,000 mg/l (BES) (OECD 209)
NOEC	47.5 mg/l (Oryzias latipes)
NOEC/21d	≥100 mg/l (daphnia magna)
EC10	>1,000 mg/l (BES)
EC50/72h	>1,000 mg/l (Pseudokirchneriella subcapitata)
LC50/96h	100-180 mg/l (Oncorhynchus mykiss) >1,000 mg/l (Oryzias latipes) 161 mg/l (Pimephales promelas)

Hydrocarbons, C9, aromatics

EC50/96h	9.2 mg/l (Oncorhynchus mykiss)
LC50	1-10 mg/l (daphnia magna)
ErC50/72h	0.42 mg/l (Pseudokirchneriella subcapitata) (OECD 201)
EL50/48h	3.2 mg/l (daphnia magna) (OECD 202)
EL50/72h	2.6-2.9 mg/l (Pseudokirchneriella subcapitata) 2.9 mg/l (selenastrum capricornutum)
LL50/96h	9.2 mg/l (Oncorhynchus mykiss) (OECD 203)
NOELR/72h	1 mg/l (Pseudokirchneriella subcapitata)
EC50/48h	7.4 mg/l (daphnia magna)
EC50/72h	0.29 mg/l (Pseudokirchneriella subcapitata) (OECD 201)

reaction mass of ethylbenzole and xylene

LC50/24h	1 mg/l (daphnia magna) (OECD 202)
EC50/48h	3.2-9.5 mg/l (daphnia magna) (US EPA)
ErC50/72h	4.9 mg/l (Pseudokirchneriella subcapitata) (OECD 201)
NOEC	16 mg/l (BES) 1.3 mg/l (Oncorhynchus mykiss)
NOELR/72h	0.44 mg/l (algae)
NOEC/21d	1.57 mg/l (daphnia magna) (OECD 211)
NOELR/28d	16 mg/l (bacteria)

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EC50/72h	1-10 mg/l (algae) 2.2 mg/l (selenastrum capricornutum) (OECD 201)
LC50/96h	1-10 mg/l (fish) 86 mg/l (Leuciscus idus) 2.6 mg/l (Oncorhynchus mykiss) (OECD 203) 8.9-16.4 mg/l (pimephales promelas)

123-86-4 n-butyl acetate

EC50/24h	72.8 mg/l (daphnia magna) (DIN 38412)
EC50/96h	320 mg/l (algae)
LC50/24h	205 mg/l (daphnia magna)
IC50/72h	648 mg/l (Desmodesmus subspicatus)
EC10/18h	959 mg/l (pseudomonas putida)
EC50/48h	44 mg/l (daphnia magna) (OECD 202)
EC50/16h	959 mg/l (pseudomonas putida)
NOEC	200 mg/kg (Desmodesmus subspicatus)
NOEC/21d	23 mg/l (daphnia magna) (OECD 211)
EC50/72h	647.7 mg/l (Desmodesmus subspicatus) (Zellvermehrungshemmtest) 397 mg/l (Scenedesmus subspicatus)
LC50/96h	62 mg/l (Danio rerio.) 81 mg/l (piscis) 100 mg/l (Iepomis macrochirus) 62 mg/l (Leuciscus idus) (DIN 38412) 18 mg/l (pimephales promelas) (OECD 203)

- **12.2 Persistence and degradability**

No further relevant information available.

- **12.3 Bioaccumulative potential**

No further relevant information available.

- **12.4 Mobility in soil**

No further relevant information available.

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

- PBT:

Not applicable.

- vPvB:

Not applicable.

- **12.6 Endocrine disrupting properties**

The product does not contain substances with endocrine disrupting properties.

- **12.7 Other adverse effects**

- Remark:

Harmful to fish

- Additional ecological information:

- General notes:

Do not allow product to reach ground water, water course or sewage system.

Harmful to aquatic organisms

Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**

- Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- European waste catalogue

08 00 00	WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS
08 01 00	wastes from MFSU and removal of paint and varnish

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08 01 11*	waste paint and varnish containing organic solvents or other hazardous substances
15 00 00	WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED
15 01 00	packaging (including separately collected municipal packaging waste)
15 01 04	metallic packaging
15 00 00	WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED
15 01 00	packaging (including separately collected municipal packaging waste)
15 01 11*	metallic packaging containing a hazardous solid porous matrix (for example asbestos), including empty pressure containers

- Uncleaned packaging:
- Recommendation:

Disposal must be made according to official regulations.
Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.

SECTION 14: Transport information

· 14.1 UN number or ID number · <u>ADR, IMDG, IATA</u>	UN1950
· 14.2 UN proper shipping name · <u>ADR</u> · <u>IMDG</u> · <u>IATA</u>	1950 AEROSOLS AEROSOLS AEROSOLS, flammable
· 14.3 Transport hazard class(es) · <u>ADR</u>	
	
· <u>Class</u> · <u>Label</u>	2.5F Gases. 2.1
· <u>IMDG, IATA</u>	
	
· <u>Class</u> · <u>Label</u>	2.1 Gases. 2.1
· 14.4 Packing group · <u>ADR, IMDG, IATA</u>	Void
· 14.5 Environmental hazards: · <u>Marine pollutant:</u>	No
· 14.6 Special precautions for user · <u>Hazard identification number (Kemler code):</u> · <u>EMS Number:</u> · <u>Stowage Code</u>	Warning: Gases. - F-D,S-U SW1 Protected from sources of heat. SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of

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· <u>Segregation Code</u>	living quarters. SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4. For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.
· 14.7 Maritime transport in bulk according to IMO instruments	Not applicable.
· Transport/Additional information:	
· <u>ADR</u>	
· <u>Limited quantities (LQ)</u>	1L
· <u>Excepted quantities (EQ)</u>	Code: E0 Not permitted as Excepted Quantity
· <u>Transport category</u>	2
· <u>Tunnel restriction code</u>	D
· <u>IMDG</u>	
· <u>Limited quantities (LQ)</u>	1L
· <u>Excepted quantities (EQ)</u>	Code: E0 Not permitted as Excepted Quantity
· <u>UN "Model Regulation":</u>	UN 1950 AEROSOLS, 2.1

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

- Directive 2012/18/EU
- Named dangerous substances - ANNEX I None of the ingredients is listed.
- Seveso category P3a FLAMMABLE AEROSOLS
- Qualifying quantity (tonnes) for the application of lower-tier requirements 150 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t
- REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

· DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II

None of the ingredients is listed.

· REGULATION (EU) 2019/1148

· Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

None of the ingredients is listed.

· Annex II - REPORTABLE EXPLOSIVES PRECURSORS

67-64-1 | acetone

· Regulation (EC) No 273/2004 on drug precursors

67-64-1 | acetone

3

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· Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors

67-64-1 acetone

3

· National regulations:

· Information about limitation of use: Employment restrictions concerning juveniles must be observed.
Employment restrictions concerning pregnant and lactating women must be observed.

· Waterhazard class: Water hazard class 2 (Self-assessment): hazardous for water.

· Substances of very high concern (SVHC) according to REACH, Article 57

None of the ingredients is listed.

· VOC EU 619.5 g/l

· **15.2 Chemical safety assessment:**

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Department issuing SDS: Laboratory

· Date of previous version: 02.11.2022

· Version number of previous version: 11

· Abbreviations and acronyms: RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organisation
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
SVHC: Substances of Very High Concern
vPvB: very Persistent and very Bioaccumulative
ATE: Acute toxicity estimate values
Flam. Gas 1A: Flammable gases – Category 1A
Aerosol 1: Aerosols – Category 1
Press. Gas (Comp.): Gases under pressure – Compressed gas
Flam. Liq. 2: Flammable liquids – Category 2
Flam. Liq. 3: Flammable liquids – Category 3
Acute Tox. 4: Acute toxicity – Category 4
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
Asp. Tox. 1: Aspiration hazard – Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

EU