

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 25.09.2019

Version number 3

Revision: 17.09.2019

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

- **1.1 Product identifier**
- **Trade name:** 2K Linemarker verschiedene Farbtöne 500ml
- **Article number:** 387043, 387050, 387067, 387081
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Sector of Use**
SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
- **Product category** PC9a Coatings and paints, thinners, paint removers
- **Process category**
PROC7 Industrial spraying
PROC11 Non industrial spraying
- **Application of the substance / the mixture** Lacquer
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
MOTIP DUPLI GmbH
Kurt Vogelsang Strasse 6
D-74855 Haßmersheim
Tel.: +49/6266/75-0
msds@de.motipdupli.com
- **Further information obtainable from:** Department Product Safety
- **1.4 Emergency telephone number:**
Tel.: +49 6266-75-310
Fax +49 6266-75-362
(Mo - Th 08:00 am - 04:00 pm, Fr 08:00 am - 00:30 pm)

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS02 flame

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



GHS07

Skin Sens. 1 H317 May cause an allergic skin reaction.

STOT SE 3 H336 May cause drowsiness or dizziness.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.

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· Hazard pictograms

GHS02 GHS07

· Signal word Danger**· Hazard-determining components of labelling:**

aliphatic polycyanate

n-butyl acetate

[N,N,N',N',N'',N''-hexaethyl-29H,31H-phthalocyaninetrimethylaminato(2-)-N29,N30,N31,N32]copper

2-methoxy-1-methylethyl acetate

· Hazard statements

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

H317 May cause an allergic skin reaction.

H336 May cause drowsiness or dizziness.

· Precautionary statements

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.

P260 Do not breathe spray.

P280 Wear protective gloves.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

P501 Dispose of contents / container in accordance with regional regulations.

· Additional information:

EUH204 Contains isocyanates. May produce an allergic reaction.

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 Chemical characterisation: Mixtures**· **Description:** Mixture of substances listed below with nonhazardous additions.**· Dangerous components:**

CAS: 115-10-6 EINECS: 204-065-8 Index number: 603-019-00-8 Reg.nr.: 01-2119472128-37	dimethyl ether Flam. Gas 1, H220 Press. Gas (Comp.), H280	12.5-<20%
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	12.5-<20%
CAS: 7727-43-7 EINECS: 231-784-4 Reg.nr.: 01-2119491274-35	barium sulphate, natural substance with a Community workplace exposure limit	12.5-<20%
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	5-<10%

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CAS: 28182-81-2 NLP: 500-060-2 Reg.nr.: 01-2119485796-17	aliphatic polycyanate ⚠ Acute Tox. 4, H332; Skin Sens. 1, H317; STOT SE 3, H335	5-<10%
CAS: 28654-73-1 EINECS: 249-125-4 Reg.nr.: 01-2119971074-38	[N,N,N',N',N'',N''-hexaethyl-29H,31H-phthalocyaninetrimethylamino(2-)-N29,N30,N31,N32]copper ⚠ Skin Sens. 1B, H317	<2.5%
EC number: 905-588-0 Index number: 601-022-00-9 Reg.nr.: 01-2119488216-32	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	<2.5%

· **Additional information:**

The content of Benzene (EINECS-Nr. 200-753-7) in the ingredients is less than 0,1% (Note P Annex IA 1272/2008 EU), so the classification as carcinogen need not to apply.

xylene: Contains ethylbenzene CAS 100-41-4

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:** Take affected persons out into the fresh air.

· **After inhalation:**

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

· **After skin contact:** Immediately wash with water and soap and rinse thoroughly.

· **After eye contact:** Rinse opened eye for several minutes under running water.

· **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** No further relevant information available.

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

No further relevant information available.

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.

Use fire extinguishing methods suitable to surrounding conditions.

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

During heating or in case of fire poisonous gases are produced.

· **5.3 Advice for firefighters -**

· **Protective equipment:**

Wear self-contained respiratory protective device.

Do not inhale explosion gases or combustion gases.

Mouth respiratory protective device.

SECTION 6: Accidental release measures

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

Keep away from ignition sources.

Ensure adequate ventilation

Mount respiratory protective device.

Wear protective equipment. Keep unprotected persons away.

· **6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

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

Dispose contaminated material as waste according to item 13.

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Ensure adequate ventilation.

· **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 interior ventilation, especially at floor level. (Fumes are heavier than air).

Ensure good ventilation/exhaustion at the workplace.

· **Information about fire - and explosion protection:**

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

Keep ignition sources away - Do not smoke.

Keep respiratory protective device available.

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

· **Storage:**

· **Requirements to be met by storerooms and receptacles:**

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.

· **Storage class:** 2 B

· **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

· **Additional information about design of technical facilities:** No further data; see item 7.

· **8.1 Control parameters**

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

115-10-6 dimethyl ether

WEL Short-term value: 958 mg/m³, 500 ppm

Long-term value: 766 mg/m³, 400 ppm

123-86-4 n-butyl acetate

WEL Short-term value: 966 mg/m³, 200 ppm

Long-term value: 724 mg/m³, 150 ppm

7727-43-7 barium sulphate, natural

WEL Long-term value: 10* 4** mg/m³

*inhalable dust **respirable dust

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

WEL Short-term value: 548 mg/m³, 100 ppm

Long-term value: 274 mg/m³, 50 ppm

Sk

xylene

WEL Short-term value: 441 mg/m³, 100 ppm

Long-term value: 220 mg/m³, 50 ppm

Sk; BMGV

· **Ingredients with biological limit values:**

xylene

BMGV 650 mmol/mol creatinine

Medium: urine

Sampling time: post shift

Parameter: methyl hippuric acid

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· **Additional information:** The lists valid during the making were used as basis.

· **8.2 Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Do not eat, drink, smoke or sniff while working.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

· **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.

· **Protection of hands:**

In case of contact with spray dust protective gloves made of butyl should be used (min. 0.4 mm thick), e.g. KCL Camatril, article no. 898 or similar products

Solvent resistant gloves

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.



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

· **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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

Butyl rubber gloves with a thickness of 0.4 mm are resistant to:

Acetone: 480 min

Butyl acetate: 60 min

Ethyl acetate: 170 min

Xylene: 42 min

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **For the permanent contact in work areas without heightened risk of injury (e.g. Laboratory) gloves made of the following material are suitable:**

Natural rubber, NR

· **Eye protection:** Not required.

· **Body protection:** Light weight protective clothing

SECTION 9: Physical and chemical properties

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

· **General Information**

· **Appearance:**

Form:

Aerosol

Colour:

According to product specification

· **Odour:**

Characteristic

· **Odour threshold:**

Not determined.

· **pH-value:**

Not determined.

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· Change in condition	
Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	Not applicable, as aerosol.
· Flash point:	Not applicable, as aerosol.
· Flammability (solid, gas):	Not applicable.
· Ignition temperature:	240 °C (464 °F)
· Decomposition temperature:	Not determined.
· Explosive properties:	Not determined.
· Explosion limits:	
Lower:	1.2 Vol %
Upper:	26.2 Vol %
· Vapour pressure at 20 °C (68 °F):	4000 hPa (3000.2 mm Hg)
· Density at 20 °C (68 °F):	0.8 g/cm ³ (6.7 lbs/gal)
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with water:	Not miscible or difficult to mix.
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	42.6 %
VOC (EC)	---
	330.4 g/l
· VOC-EU%	42.64 %
· Solids content:	24.9 %
· 9.2 Other information	No further relevant information available.

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 toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.

LD/LC50 values relevant for classification:

123-86-4 n-butyl acetate

Oral	LD50	10800 mg/kg (rat) (OECD 401)
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Dermal	LD50	>17600 mg/kg (rabbit)
Inhalative	LC50 / 4 h	>21 mg/m ³ (rat)
108-65-6 2-methoxy-1-methylethyl acetate		
Oral	LD50	8530 mg/kg (rat)
Dermal	LD50	>5000 mg/kg (rabbit)
Inhalative	LC50 / 4 h	>10000 mg/m ³ (rat)
xylene		
Oral	LD50	3523 mg/kg (rat)
Dermal	LD50	2000 mg/kg (rabbit)
Inhalative	LC50 / 4 h	29000 mg/m ³ (rat)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation**
May cause an allergic skin reaction.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **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.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity:

115-10-6 dimethyl ether

EC50 / 96 h	155 mg/l (algae)
LC50 / 48 h	>4000 mg/l (daphnia magna)
LC50 / 96 h	>4000 mg/l (fish)

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

EC50 / 48 h	>500 mg/l (daphnia magna)
LC50 / 96 h	100-180 mg/l (oncorhynchus mykiss / Regenbogenforelle)

xylene

EC50 / 48 h	7.4 mg/l (daphnia magna)
LC50 / 96 h	13.5 mg/l (fish)

- **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.
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

GB

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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 01 11*	waste paint and varnish containing organic solvents or other hazardous substances
15 01 04	metallic packaging
15 01 10*	packaging containing residues of or contaminated by hazardous substances

· **Uncleaned packaging:**

· **Recommendation:**

Disposal must be made according to official regulations.

Contains isocyanates. See information supplied by the manufacturer

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

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

Buildup of explosive mixtures possible without sufficient ventilation.

SECTION 14: Transport information

· **14.1 UN-Number**

· **ADR, IMDG, IATA**

UN1950

· **14.2 UN proper shipping name**

· **ADR**

1950 AEROSOLS

· **IMDG**

AEROSOLS

· **IATA**

AEROSOLS, flammable

· **14.3 Transport hazard class(es)**

· **ADR**



· **Class**

2 5F Gases.

· **Label**

2.1

· **IMDG, IATA**



· **Class**

2.1

· **Label**

2.1

· **14.4 Packing group**

· **ADR, IMDG, IATA**

not regulated

· **14.5 Environmental hazards:**

Not applicable.

· **14.6 Special precautions for user**

Warning: Gases.

· **Danger code (Kemler):**

-

· **EMS Number:**

F-D,S-U

· **Stowage Code**

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

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· Segregation Code	of 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 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· Transport category	2
· Tunnel restriction code	D
· IMDG	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· UN "Model Regulation":	UN 1950 AEROSOLS, 2.1

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3
- **National regulations:**
- **Information about limitation of use:** Employment restrictions concerning juveniles must be observed.
- **Other regulations, limitations and prohibitive regulations**
- **Substances of very high concern (SVHC) according to REACH, Article 57**
None of the ingredients is listed.
- **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.

- **Relevant phrases**
- H220 Extremely flammable gas.
- H226 Flammable liquid and vapour.
- H280 Contains gas under pressure; may explode if heated.
- H304 May be fatal if swallowed and enters airways.
- H312 Harmful in contact with skin.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H335 May cause respiratory irritation.
- H336 May cause drowsiness or dizziness.
- H373 May cause damage to organs through prolonged or repeated exposure.

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· 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 européen sur le transport 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)

VOC: Volatile Organic Compounds (USA, EU)

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

Flam. Gas 1: Flammable gases – Category 1

Aerosol 1: Aerosols – Category 1

Press. Gas (Comp.): Gases under pressure – Compressed gas

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

Skin Sens. 1: Skin sensitisation – Category 1

Skin Sens. 1B: Skin sensitisation – Category 1B

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

· * Data compared to the previous version altered.