

## 1 Identification of substance

· **Product details**

- **Trade name:** 2K-Klarlack-Spray / 2K-Clearcoat-Spray
- **Application of the substance / the preparation** *Lacquer*

· **Manufacturer/Supplier:**

MIPA AG  
Am Oberen Moos 1  
D-84051 Essenbach  
Tel.: 0049(0) 8703-922-0  
Fax.: 0049(0) 8703-922-100  
e-mail: [sdb-registratur@mipa-paints.com](mailto:sdb-registratur@mipa-paints.com)  
[www.mipa-paints.com](http://www.mipa-paints.com)

· **Information department:** *Laboratory*

· **Emergency information:**

011 49(0)5262-9939657 (MIP)  
US Emergency Telephone Number (for transportation incidents only): 1-800-535-5053 (Infotrac)

## 2 Composition/Data on components

· **Chemical characterization**

- **Description:** *Mixture of the substances listed below with nonhazardous additions.*

· **Dangerous components:**

115-10-6	dimethyl ether	25-50%
67-64-1	acetone	10-25%
123-86-4	n-butyl acetate	10-25%
28182-81-2	Aliphatic polyisocyanate homopolymer (classification according to definition principle)	2.5-10%
64742-95-6	Solvent naphtha (petroleum), light arom.	≤ 2.5%
1330-20-7	xylene	≤ 2.5%
112-07-2	2-butoxyethyl acetate	≤ 2.5%

## 3 Hazards identification

· **Hazard description:**



*Irritant*  
*Extremely flammable*

· **Information pertaining to particular dangers for man and environment:**

*The product has to be labelled due to the calculation procedure of international guidelines.*  
*At long or repeated contact with skin it may cause dermatitis due to the degreasing effect of the solvent.*  
*Warning! Pressurized container.*  
*Has a narcotizing effect.*  
*Extremely flammable.*  
*Irritating to eyes.*  
*May cause sensitisation by skin contact.*  
*Repeated exposure may cause skin dryness or cracking.*  
*Vapours may cause drowsiness and dizziness.*  
*Pressurized 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.*  
*83.2 % by mass of the contents are flammable*  
*Keep out of the reach of children.*

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· **Classification system:**

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

· **NFPA ratings (scale 0 - 4)**



Health = 1  
Fire = 4  
Reactivity = 3

· **HMIS-ratings (scale 0 - 4)**



Health = 1  
Fire = 4  
Reactivity = 3

#### 4 First aid measures

· **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. If symptoms persist, consult a doctor.

· **After swallowing:** If symptoms persist consult doctor.

#### \* 5 Fire fighting measures

· **Suitable extinguishing agents:** CO<sub>2</sub>, sand, extinguishing powder. Do not use water.

· **For safety reasons unsuitable extinguishing agents:** Water with full jet

· **Protective equipment:**

Wear self-contained respiratory protective device.

Do not inhale explosion gases or combustion gases.

#### 6 Accidental release measures

· **Person-related safety precautions:** Wear protective equipment. Keep unprotected persons away.

· **Measures for environmental protection:** Do not allow to enter sewers/ surface or ground water.

· **Measures for cleaning/collecting:**

Ensure adequate ventilation.

Do not flush with water or aqueous cleansing agents

#### \* 7 Handling and storage

· **Handling:**

· **Information 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 protection against explosions and fires:**

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

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

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Pressurized 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.

· **Storage:**

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

Store in a cool location.

Observe official regulations on storing packagings with pressurized containers.

· **Information about storage in one common storage facility:** Store away from foodstuffs.

· **Further information about storage conditions:**

Keep receptacle tightly sealed.

Do not gas tight seal receptacle.

Store in cool, dry conditions in well sealed receptacles.

Protect from heat and direct sunlight.

## 8 Exposure controls and personal protection

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

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

**115-10-6 dimethyl ether**

WEEL 1000 ppm

**67-64-1 acetone**

PEL 2400 mg/m<sup>3</sup>, 1000 ppm

REL 590 mg/m<sup>3</sup>, 250 ppm

TLV Short-term value: 1782 mg/m<sup>3</sup>, 750 ppm

Long-term value: 1188 mg/m<sup>3</sup>, 500 ppm

BEI

**123-86-4 n-butyl acetate**

PEL 710 mg/m<sup>3</sup>, 150 ppm

REL Short-term value: 950 mg/m<sup>3</sup>, 200 ppm

Long-term value: 710 mg/m<sup>3</sup>, 150 ppm

TLV Short-term value: 950 mg/m<sup>3</sup>, 200 ppm

Long-term value: 713 mg/m<sup>3</sup>, 150 ppm

**1330-20-7 xylene**

PEL 435 mg/m<sup>3</sup>, 100 ppm

REL Short-term value: 655 mg/m<sup>3</sup>, 150 ppm

Long-term value: 435 mg/m<sup>3</sup>, 100 ppm

TLV Short-term value: 651 mg/m<sup>3</sup>, 150 ppm

Long-term value: 434 mg/m<sup>3</sup>, 100 ppm

BEI

**112-07-2 2-butoxyethyl acetate**

REL 33 mg/m<sup>3</sup>, 5 ppm

Skin

TLV 130 mg/m<sup>3</sup>, 20 ppm

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

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

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**· Breathing equipment:**

*In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.  
Use suitable respiratory protective device in case of insufficient ventilation.*

**· Protection of hands:**

*Solvent resistant gloves*



Protective gloves

*The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.*

*Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation*

**· Material of gloves**

*Nitrile rubber, NBR*

*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**

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

**· Eye protection:**



Tightly sealed goggles

**9 Physical and chemical properties**

**· General Information**

**Form:** Aerosol  
**Color:** Clear  
**Odor:** Characteristic

**· Change in condition**

**Melting point/Melting range:** Undetermined.  
**Boiling point/Boiling range:** -24°C (-11°F)

**· Flash point:** < 0°C (< 32°F) (DIN 53213)

**· Ignition temperature:** 235°C (455°F) (DIN 51794)

**· Auto igniting:** Product is not selfigniting.

**· Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

**· Explosion limits:**

**Lower:** 1.2 Vol %  
**Upper:** 18.6 Vol %

**· Vapor pressure at 20°C (68°F):** 5200 hPa (3900 mm Hg)

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· <b>Density at 20°C (68°F):</b>	0.777 g/cm <sup>3</sup> (DIN 53217)
· <b>Solubility in / Miscibility with Water:</b>	Not miscible or difficult to mix.
· <b>Solvent separation test</b>	< 3 %
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	83.2 %
<b>VOC content:</b>	59.2 %
	less exempt solvents 602.5 g/l / 5.03 lb/gl
	with exempt solvents 641.0 g/l / 5.35 lb/gl
· <b>Solids content (weight-%):</b>	16.8 %

### \* 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Dangerous products of decomposition:** Carbon monoxide

### \* 11 Toxicological information

- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

**64742-95-6 Solvent naphtha (petroleum), light arom.**

Oral	LD50	>6800 mg/kg (rat)
Dermal	LD50	>3400 mg/kg (rab)
Inhalative	LC50/4 h	>10.2 mg/l (rat)

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** Irritating effect.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:  
Irritant

### 12 Ecological information

- **General notes:**

Water hazard class 1 (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.

### 13 Disposal considerations

- **Product:**

- **Recommendation:**

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

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- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

## 14 Transport information

### · DOT regulations:



- **Hazard class:** 2.1
- **Identification number:** UN1950
- **Packing group:** -
- **Proper shipping name (technical name):** AEROSOLS, flammable
- **Label:** 2.1

### · Land transport ADR/RID (cross-border):



- **ADR/RID class:** 2 5F Gases
- **Danger code (Kemler):** -
- **UN-Number:** 1950
- **Packaging group:** -
- **Label:** 2.1
- **Description of goods:** 1950 AEROSOLS

### · Maritime transport IMDG:



- **IMDG Class:** 2.1
- **UN Number:** 1950
- **Label:** 2.1
- **Packaging group:** -
- **EMS Number:** F-D,S-U
- **Marine pollutant:** No
- **Propper shipping name:** AEROSOLS

### · Air transport ICAO-TI and IATA-DGR:



- **ICAO/IATA Class:** 2.1
- **UN/ID Number:** 1950
- **Label:** 2.1
- **Packaging group:** -
- **Propper shipping name:** AEROSOLS, flammable

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## 15 Regulations

· **Sara**

· **Section 355 (extremely hazardous substances):**

None of the ingredient is listed.

· **Section 313 (Specific toxic chemical listings):**

1330-20-7 | xylene

· **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenicity categories**

· **EPA (Environmental Protection Agency)**

67-64-1 | acetone

I

1330-20-7 | xylene

I

· **IARC (International Agency for Research on Cancer)**

1330-20-7 | xylene

3

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

67-64-1 | acetone

A4 10-25%

1330-20-7 | xylene

A4 ≤2,5%

112-07-2 | 2-butoxyethyl acetate

A3 ≤2,5%

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

· **Product related hazard informations:**

The product has been classified and marked in accordance with directives on hazardous materials.

· **Hazard symbols:**

Irritant

Extremely flammable

· **Hazard-determining components of labelling:**

Aliphatic polyisocyanate homopolymer (classification according to definition principle)

· **Risk phrases:**

Extremely flammable.

Irritating to eyes.

May cause sensitisation by skin contact.

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Repeated exposure may cause skin dryness or cracking.  
Vapours may cause drowsiness and dizziness.

**· Safety phrases:**

Keep out of the reach of children.  
Do not breathe fumes/aerosol.  
Avoid contact with skin and eyes.  
Wear suitable gloves.  
If swallowed, seek medical advice immediately and show this container or label.  
Use only in well-ventilated areas.

**· Special labeling of certain preparations:**

Pressurized 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.  
83.2 % by mass of the contents are flammable  
Keep out of the reach of children.

**· National regulations:**

**· Information about limitation of use:**

112-07-2	2-butoxyethyl acetate	4
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Class	Share in %
NK	50-100

**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 MSDS:** MIPA AG, Abteilung Umweltschutz
- **Contact:** Michaela Knall
- **\* Data compared to the previous version altered.**