

1 Identification of substance

· **Product details**

· **Trade name:** 2K-Löser / 2K-Diluent

· **Application of the substance / the preparation** Thinner, Diluent

· **Manufacturer/Supplier:**

MIPA AG

Am Oberen Moos 1

D-84051 Essenbach

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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:**

108-94-1	cyclohexanone	25-50%
108-65-6	2-methoxy-1-methylethyl acetate	25-50%
112-07-2	2-butoxyethyl acetate	2.5-10%
67-64-1	acetone	2.5-10%

3 Hazards identification

· **Hazard description:**



Harmful

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

The product has to be labelled due to the calculation procedure of international guidelines.

Harmful by inhalation.

Irritating to eyes.

· **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 = 2

Fire = 2

Reactivity = 0

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· **HMIS-ratings (scale 0 - 4)**

HEALTH	2	Health = 2
FIRE	2	Fire = 2
REACTIVITY	0	Reactivity = 0

4 First aid measures

· **General information:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· **After inhalation:**

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

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

· **After skin contact:** *Generally the product does not irritate the skin.*

· **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:**

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· **Protective equipment:** *Mouth respiratory protective device.*

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:**

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

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

7 Handling and storage

· **Handling:**

· **Information for safe handling:**

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

· **Information about protection against explosions and fires:** *Keep ignition sources away - Do not smoke.*

· **Storage:**

· **Requirements to be met by storerooms and receptacles:** *No special requirements.*

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

· **Further information about storage conditions:** *Keep receptacle tightly sealed.*

8 Exposure controls and personal protection

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

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Components with limit values that require monitoring at the workplace:	
108-94-1 cyclohexanone	
PEL	200 mg/m ³ , 50 ppm
REL	100 mg/m ³ , 25 ppm
	Skin
TLV	50 mg/m ³ , 20 ppm
	Skin
108-65-6 2-methoxy-1-methylethyl acetate	
WEEL	50 ppm
112-07-2 2-butoxyethyl acetate	
REL	33 mg/m ³ , 5 ppm
	Skin
TLV	130 mg/m ³ , 20 ppm
67-64-1 acetone	
PEL	2400 mg/m ³ , 1000 ppm
REL	590 mg/m ³ , 250 ppm
TLV	Short-term value: 1782 mg/m ³ , 750 ppm
	Long-term value: 1188 mg/m ³ , 500 ppm
	BEI

· **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.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

· **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.

· **Protection of hands:**

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**

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:**

Safety glasses

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Tightly sealed goggles

9 Physical and chemical properties

· General Information

Form: Fluid
Color: According to product specification
Odor: Characteristic

· Change in condition

Melting point/Melting range: Undetermined.
Boiling point/Boiling range: 55°C (131°F)

· **Flash point:** 59°C (138°F) (DIN 53213)

· **Ignition temperature:** 280°C (536°F) (DIN 51794)

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

· **Danger of explosion:** Product does not present an explosion hazard.

· Explosion limits:

Lower: 1.3 Vol %
Upper: 13.0 Vol %

· **Vapor pressure at 20°C (68°F):** 233 hPa (175 mm Hg)

· **Density at 20°C (68°F):** 0.935 g/cm³ (DIN 53217)

· Solubility in / Miscibility with

Water: Not miscible or difficult to mix.

· Viscosity:

Kinematic at 20°C (68°F): 15 s (DIN 53211/4)

· **Solvent separation test** < 3 %

· Solvent content:

Organic solvents: 100.0 %
VOC content: 40.0 %
 less exempt solvents 934.9 g/l / 7.80 lb/gl
 with exempt solvents 952.9 g/l / 7.95 lb/gl

10 Stability and reactivity

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

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11 Toxicological information

· **Acute toxicity:**

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

108-94-1 cyclohexanone

Oral	LD50	1535 mg/kg (rat)
Dermal	LD50	948 mg/kg (rabbit)
Inhalative	LC50/4 h	8000 mg/l (rat)

· **Primary irritant effect:**

· **on the skin:** No irritant effect.

· **on the eye:** Irritating effect.

· **Sensitization:** No sensitizing effects known.

· **Additional toxicological information:**

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

Harmful
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.

· **Uncleaned packagings:**

· **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

· **DOT regulations:**



· **Hazard class:**

3

· **Identification number:**

UN1263

· **Packing group:**

III

· **Proper shipping name (technical name):** PAINT RELATED MATERIAL

· **Label**

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



- **ADR/RID class:** 3 (F1) Flammable liquids
- **Danger code (Kemler):** 30
- **UN-Number:** 1263
- **Packaging group:** III
- **Label:** 3
- **Description of goods:** 1263 PAINT RELATED MATERIAL, special provision 640E

· Maritime transport IMDG:



- **IMDG Class:** 3
- **UN Number:** 1263
- **Label:** 3
- **Packaging group:** III
- **EMS Number:** F-E,S-E
- **Marine pollutant:** No
- **Propper shipping name:** PAINT RELATED MATERIAL

· Air transport ICAO-TI and IATA-DGR:



- **ICAO/IATA Class:** 3
- **UN/ID Number:** 1263
- **Label:** 3
- **Packaging group:** III
- **Propper shipping name:** PAINT RELATED MATERIAL

15 Regulations

· Sara

· Section 355 (extremely hazardous substances):

None of the ingredient is listed.

· Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

· 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.

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

108-94-1	cyclohexanone		3
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· **NTP (National Toxicology Program)**

None of the ingredients is listed.

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

108-94-1	cyclohexanone	A3	25-50%
112-07-2	2-butoxyethyl acetate	A3	2,5-10%
67-64-1	acetone	A4	2,5-10%

· **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:**

Harmful

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

cyclohexanone

· **Risk phrases:**

Harmful by inhalation.

Irritating to eyes.

· **Safety phrases:**

Keep out of the reach of children.

Keep container in a well-ventilated place.

Keep away from food, drink and animal feedingstuffs.

Keep away from sources of ignition - No smoking.

Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).

If swallowed, seek medical advice immediately and show this container or label.

· **National regulations:**

· **Information about limitation of use:**

108-94-1	cyclohexanone	3B
112-07-2	2-butoxyethyl acetate	4

Class	Share in %
NK	50-100

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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.**

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