

1 Identification

- **Product identifier**
- **Trade name:** *Mipa 2K-Löser*
- **Application of the substance / the mixture** *Thinner, Diluent*
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
MIPA SE
Am Oberen Moos 1
D-84051 Essenbach
Tel.: +49(0)8703-922-0
Fax.: +49(0)8703-922-100
e-mail: sdb-registratur@mipa-paints.com
www.mipa-paints.com
- Fleetwood Products Inc.
13 American Way Suite 15
USA - NJ 08884 Spotswood
Tel.: +1 7324169590
e.mail: fleet089@hotmail.com
- **Emergency telephone number:**
International: 011 49(0)700 24112112 (MIP)
US: +1 872 5888271 (MIP)
US Emergency Telephone Number (for transportation incidents only): 1-800-535-5053 (Infotrac)

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flammable Liquids 2

H225

Highly flammable liquid and vapor.



GHS05 Corrosion

Eye Damage 1

H318

Causes serious eye damage.



GHS07

Acute Toxicity - Dermal 4

H312

Harmful in contact with skin.

Acute Toxicity - Inhalation 4

H332

Harmful if inhaled.

Skin Irritation 2

H315

Causes skin irritation.

Specific Target Organ Toxicity - Single Exposure 3 H335-H336 May cause respiratory irritation.
May cause drowsiness or dizziness.

- **Label elements**
- **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS02 GHS05 GHS07

- **Signal word** *Danger*
- **Hazard-determining components of labeling:**
Cyclohexanone
2-Butoxyethyl acetate

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2-Methoxy-1-methylethyl acetate
acetone

Hazard statements

- H225 Highly flammable liquid and vapor.
- H312+H332 Harmful in contact with skin or if inhaled.
- H315 Causes skin irritation.
- H318 Causes serious eye damage.
- H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness.

Precautionary statements

- P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P310 Immediately call a poison center/doctor.
- P321 Specific treatment (see on this label).
- P362+P364 Take off contaminated clothing and wash it before reuse.

Classification system:

NFPA ratings (scale 0 - 4)



Health = 3
Fire = 3
Reactivity = 0

HMIS-ratings (scale 0 - 4)



HEALTH *3 Health = *3
FIRE 3 Fire = 3
REACTIVITY 0 Reactivity = 0

Other hazards

Results of PBT and vPvB assessment

- PBT:** Not applicable.
- vPvB:** Not applicable.

3 Composition/information on ingredients

Chemical characterization: Mixtures

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	<15%
67-64-1	acetone	5-<10%

4 First-aid measures

Description of first aid measures

General information:

Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

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- **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:** Immediately rinse with water.
- **After eye contact:**
Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralizing agent.
Dispose contaminated material as waste according to section 13.
Ensure adequate ventilation.
- **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.
- **Protective Action Criteria for Chemicals**

· **PAC-1:**

108-94-1	Cyclohexanone	60 ppm
108-65-6	2-Methoxy-1-methylethyl acetate	50 ppm
112-07-2	2-Butoxyethyl acetate	15 ppm
67-64-1	acetone	200 ppm
75-65-0	2-methylpropan-2-ol	150 ppm
1330-20-7	Xylene	130 ppm
646-06-0	1,3-dioxolane	60 ppm
100-41-4	Ethylbenzene	33 ppm
78-83-1	Isobutanol	150 ppm
540-97-6	Dodecamethylcyclhexasiloxane	150 mg/m ³

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556-67-2	octamethylcyclotetrasiloxane	30 ppm
· PAC-2:		
108-94-1	Cyclohexanone	830 ppm
108-65-6	2-Methoxy-1-methylethyl acetate	1,000 ppm
112-07-2	2-Butoxyethyl acetate	35 ppm
67-64-1	acetone	3200* ppm
75-65-0	2-methylpropan-2-ol	1,300 ppm
1330-20-7	Xylene	920* ppm
646-06-0	1,3-dioxolane	190 ppm
100-41-4	Ethylbenzene	1100* ppm
78-83-1	Isobutanol	1,300 ppm
540-97-6	Dodecamethylcyclohexasiloxane	1,700 mg/m ³
556-67-2	octamethylcyclotetrasiloxane	68 ppm
· PAC-3:		
108-94-1	Cyclohexanone	5000* ppm
108-65-6	2-Methoxy-1-methylethyl acetate	5000* ppm
112-07-2	2-Butoxyethyl acetate	210 ppm
67-64-1	acetone	5700* ppm
75-65-0	2-methylpropan-2-ol	8000* ppm
1330-20-7	Xylene	2500* ppm
646-06-0	1,3-dioxolane	1,000 ppm
100-41-4	Ethylbenzene	1800* ppm
78-83-1	Isobutanol	8000* ppm
540-97-6	Dodecamethylcyclohexasiloxane	9,900 mg/m ³
556-67-2	octamethylcyclotetrasiloxane	130 ppm

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Keep away from heat and direct sunlight.
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.
Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:**
Keep receptacle tightly sealed.
Store in cool, dry conditions in well sealed receptacles.
- **Storage class:** 3
- **Specific end use(s)** No further relevant information available.

USA

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8 Exposure controls/personal protection

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

· **Control parameters**

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

108-94-1 Cyclohexanone

PEL Long-term value: 200 mg/m³, 50 ppm

REL Long-term value: 100 mg/m³, 25 ppm
Skin

TLV Short-term value: 50 ppm
Long-term value: 20 ppm
Skin, BEI, A3

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

WEEL Long-term value: 50 ppm

112-07-2 2-Butoxyethyl acetate

REL Long-term value: 33 mg/m³, 5 ppm

TLV Long-term value: 20 ppm
A3

67-64-1 acetone

PEL Long-term value: 2400 mg/m³, 1000 ppm

REL Long-term value: 590 mg/m³, 250 ppm

TLV Short-term value: 500 ppm
Long-term value: 250 ppm
A4, BEI

· **Ingredients with biological limit values:**

108-94-1 Cyclohexanone

BEI 80 mg/L

Medium: urine

Time: end of shift at end of workweek

Parameter: 1,2-Cyclohexanediol (with hydrolysis, nonspecific, nonquantitative)

8 mg/L

Medium: urine

Time: end of shift

Parameter: Cyclohexanol (with hydrolysis, nonspecific, nonquantitative)

67-64-1 acetone

BEI 25 mg/L

Medium: urine

Time: end of shift

Parameter: Acetone (nonspecific)

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

· **Exposure controls**

· **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.

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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.

Protection of hands:

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



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Material of gloves

Butyl rubber, BR

Recommended thickness of the material: ≥ 0.7 mm

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.

Breakthrough time of glove material Value for the permeation: Level ≤ 6

Eye protection:


Tightly sealed goggles

9 Physical and chemical properties

Information on basic physical and chemical properties
General Information
Appearance:

Form:	Fluid
Color:	According to product specification
Odor:	Characteristic
Odor threshold:	Not determined.

pH-value: Not determined.

Change in condition

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	56 °C (132.8 °F)

Flash point: 9 °C (48.2 °F) (DIN 53213)

Flammability (solid, gaseous): Highly flammable.

Auto igniting: 280 °C (536 °F) (DIN 51794)

Decomposition temperature: Not determined.

Ignition temperature: Product is not selfigniting.

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

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· Explosion limits:	
Lower:	1.3 Vol %
Upper:	10.8 Vol %
· Vapor pressure at 20 °C (68 °F):	233 hPa (174.8 mm Hg)
· Density at 20 °C (68 °F):	0.936 g/cm ³ (7.811 lbs/gal) (DIN 53217)
· Relative density	Not determined.
· Vapor density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with Water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic at 20 °C (68 °F):	15 s (DIN 53211/4)
· Solvent content:	
VOC content:	90.04 % 954 g/l / 8.0 lb/gal
Solids content (weight-%):	0.2 %
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** Carbon monoxide

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

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

108-94-1 Cyclohexanone

Oral | LD50 | 1,620 mg/kg (rat)

- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** Strong irritant with the danger of severe eye injury.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Harmful
Irritant

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Trade name: Mipa 2K-Löser

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· **Carcinogenic categories**

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

108-94-1 Cyclohexanone

3

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

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

None of the ingredients is listed.

12 Ecological information

· **Toxicity**

· **Aquatic toxicity:** No further relevant information available.

· **Persistence and degradability** No further relevant information available.

· **Behavior in environmental systems:**

· **Bioaccumulative potential** No further relevant information available.

· **Mobility in soil** No further relevant information available.

· **Additional 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.

Must not reach bodies of water or drainage ditch undiluted or unneutralized.

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **Other adverse effects** No further relevant information available.

13 Disposal considerations

· **Waste treatment methods**

· **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

· **UN-Number**

· **DOT, ADR, IMDG, IATA**

UN1263

· **UN proper shipping name**

· **DOT**

Paint related material

· **ADR**

UN1263 PAINT RELATED MATERIAL

· **IMDG, IATA**

PAINT RELATED MATERIAL

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Trade name: Mipa 2K-Löser

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· **Transport hazard class(es)**

· **DOT**



· **Class** 3 Flammable liquids
 · **Label** 3

· **ADR**



· **Class** 3 (F1) Flammable liquids
 · **Label** 3

· **IMDG, IATA**



· **Class** 3 Flammable liquids
 · **Label** 3

· **Packing group**

· **DOT, ADR, IMDG, IATA** II

· **Environmental hazards:**

· **Marine pollutant:** No

· **Special precautions for user**

Warning: Flammable liquids

· **Hazard identification number (Kemler code):** 33

· **EMS Number:** F-E, S-E

· **Stowage Category** B

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not applicable.

· **Transport/Additional information:**

· **ADR**

· **Limited quantities (LQ)** 5L

· **IMDG**

· **Limited quantities (LQ)** 5L

· **UN "Model Regulation":** UN 1263 PAINT RELATED MATERIAL, 3, II

15 Regulatory information

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

· **Sara**

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

None of the ingredient is listed.

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Trade name: Mipa 2K-Löser

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· Section 313 (Specific toxic chemical listings):

112-07-2	2-Butoxyethyl acetate
75-65-0	2-methylpropan-2-ol
1330-20-7	Xylene
100-41-4	Ethylbenzene

· Hazardous Air Pollutants

1330-20-7	Xylene
100-41-4	Ethylbenzene

· Proposition 65
· Chemicals known to cause cancer:

100-41-4	Ethylbenzene
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· 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.

· Cancerogenity categories
· EPA (Environmental Protection Agency)

67-64-1	acetone		I
1330-20-7	Xylene		I
100-41-4	Ethylbenzene		D

· TLV (Threshold Limit Value)

108-94-1	Cyclohexanone	A3	25-50%
112-07-2	2-Butoxyethyl acetate	A3	<15%
67-64-1	acetone	A4	5-<10%
75-65-0	2-methylpropan-2-ol	A4	<1%
1330-20-7	Xylene	A4	<0.1%
100-41-4	Ethylbenzene	A3	<0.1%

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

None of the ingredients is listed.

· GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms


GHS02 GHS05 GHS07

· Signal word Danger
· Hazard-determining components of labeling:

Cyclohexanone
 2-Butoxyethyl acetate
 2-Methoxy-1-methylethyl acetate
 acetone

· Hazard statements

H225 Highly flammable liquid and vapor.

(Contd. on page 11)

Trade name: Mipa 2K-Löser

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H312+H332 Harmful in contact with skin or if inhaled.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness.

· **Precautionary statements**

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a poison center/doctor.

P321 Specific treatment (see on this label).

P362+P364 Take off contaminated clothing and wash it before reuse.

· **National regulations:**

· **Additional classification according to Decree on Hazardous Materials:**

Class	Share in %
NK	50-100

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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.

· **Contact:**

· **Date of preparation / last revision 06/16/2023**

· **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

DOT: US Department of Transportation

IATA: International Air Transport Association

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)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

BEI: Biological Exposure Limit

Flammable Liquids 2: Flammable liquids – Category 2

Acute Toxicity - Dermal 4: Acute toxicity – Category 4

Skin Irritation 2: Skin corrosion/irritation – Category 2

Eye Damage 1: Serious eye damage/eye irritation – Category 1

Specific Target Organ Toxicity - Single Exposure 3: Specific target organ toxicity (single exposure) – Category 3

· *** Data compared to the previous version altered.**