

1 Identification of substance

· **Product details**

· **Trade name:** Härter PS / Hardener PS

· **Application of the substance / the preparation** Hardening agent/ Curing agent

· **Manufacturer/Supplier:**

MIPA AG

Am Oberen Moos 1

D-84051 Essenbach

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e-mail: sdb-registratur@mipa-paints.com

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:**

1338-23-4	2-Butanone, peroxide	25-50%
12262-58-7	Cyclohexanone, peroxide	10-25%
78-93-3	butanone	≤ 2.5%
7722-84-1	hydrogen peroxide solution	≤ 2.5%

3 Hazards identification

· **Hazard description:**



Corrosive
Oxidizing

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

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

May cause fire.

Harmful if swallowed.

Causes burns.

Irritating to respiratory system.

· **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 = 3

Fire = 3

Reactivity = 0

The substance possesses oxidizing properties.

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· **HMIS-ratings (scale 0 - 4)**

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

4 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.

· **After inhalation:** *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. Then consult a doctor.*

· **After swallowing:**

Immediately call a doctor.

Drink copious amounts of water and provide fresh air. Immediately call a 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:** *No special measures required.*

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).

Use neutralizing agent.

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.*

· **Information about protection against explosions and fires:** *No special measures required.*

· **Storage:**

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

· **Information about storage in one common storage facility:**

Do not store together with reducing agents, heavy-metal compounds, acids and alkalis.

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:	
1338-23-4 2-Butanone, peroxide	
REL	Short-term value: C 1.5 mg/m ³ , C 0.2 ppm
TLV	Short-term value: C 1.5 mg/m ³ , C 0.2 ppm
78-93-3 butanone	
PEL	590 mg/m ³ , 200 ppm
REL	Short-term value: 885 mg/m ³ , 300 ppm Long-term value: 590 mg/m ³ , 200 ppm
TLV	Short-term value: 885 mg/m ³ , 300 ppm Long-term value: 590 mg/m ³ , 200 ppm
	BEI
7722-84-1 hydrogen peroxide solution	
PEL	1.4 mg/m ³ , 1 ppm
REL	1.4 mg/m ³ , 1 ppm
TLV	1.4 mg/m ³ , 1 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 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:**



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**

- Neoprene gloves
- Nitrile rubber, NBR
- Fluorocarbon rubber (Viton)
- 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**

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

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· **Eye protection:**

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: 81°C (178°F)

· **Flash point:** 81°C (178°F) (DIN 53213)· **Auto igniting:** Product is not selfigniting.· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.· **Density at 20°C (68°F):** 1.12 g/cm³ (DIN 53217)· **Solubility in / Miscibility with**

Water: Not miscible or difficult to mix.

· **Viscosity:**

Dynamic at 20°C (68°F): 38 mPas

· **Solvent separation test** < 3 %· **Solvent content:**

Organic solvents: 2.0 %
VOC content: 2.0 %
22.4 g/l / 0.19 lb/gl

· **Solids content (weight-%):** 70.0 %

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

11 Toxicological information

- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** Caustic effect on skin and mucous membranes.
- **on the eye:** Strong caustic effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:

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Harmful
Corrosive
Irritant

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

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.

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

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:**

5.2

· **Identification number:**

UN3105

· **Packing group:**

-

· **Proper shipping name (technical name):** ORGANIC PEROXIDE TYPE D, LIQUID (Cyclohexanone, peroxide, ETHYL METHYL KETONE (METHYL ETHYL KETONE))

· **Label**

5.2

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



· **ADR/RID class:**

5.2 (P1) Organic peroxides

· **Danger code (Kemler):**

-

· **UN-Number:**

3105

· **Packaging group:**

-

· **Label:**

5.2

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-USA-

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· **Description of goods:** 3105 ORGANIC PEROXIDE TYPE D, LIQUID (cyclohexanone peroxide(s), ETHYL METHYL KETONE (METHYL ETHYL KETONE))

· **Maritime transport IMDG:**



· **IMDG Class:** 5.2
 · **UN Number:** 3105
 · **Label:** 5.2
 · **Packaging group:** -
 · **EMS Number:** F-J,S-F
 · **Marine pollutant:** No
 · **Propper shipping name:** ORGANIC PEROXIDE TYPE D, LIQUID (Cyclohexanone, peroxide, ETHYL METHYL KETONE (METHYL ETHYL KETONE))

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



· **ICAO/IATA Class:** 5.2
 · **UN/ID Number:** 3105
 · **Label:** 5.2
 · **Packaging group:** -
 · **Propper shipping name:** ORGANIC PEROXIDE TYPE D, LIQUID (Cyclohexanone, peroxide, ETHYL METHYL KETONE (METHYL ETHYL KETONE))

15 Regulations

· **Sara**

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

7722-84-1 | hydrogen peroxide solution

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

78-93-3 | butanone

· **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.

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· **Cancerogenity categories**· **EPA (Environmental Protection Agency)**

78-93-3	butanone	1
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· **IARC (International Agency for Research on Cancer)**

7722-84-1	hydrogen peroxide solution	3
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· **NTP (National Toxicology Program)**

None of the ingredients is listed.

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

7722-84-1	hydrogen peroxide solution	A3	≤2,5%
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· **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:**Corrosive
Oxidizing· **Hazard-determining components of labelling:**2-Butanone, peroxide
Cyclohexanone, peroxide· **Risk phrases:**May cause fire.
Harmful if swallowed.
Causes burns.
Irritating to respiratory system.· **Safety phrases:**Keep container tightly closed in a cool place.
Keep away from reducing substances, acids, alkalis and heavy metal compounds .
Do not breathe vapour.
This material and its container must be disposed of in a safe way.
Wear suitable protective clothing, gloves and eye/face protection.
Do not mix with peroxide accelerators or reducing agents.· **National regulations:**· **Information about limitation of use:**

7722-84-1	hydrogen peroxide solution	4
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Class	Share in %
NK	≤ 2,5

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.**