

ESKANOL M50 HARDENER

Revision date: 23.08.2022

Product code: 00359-1290

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Precautionary statements

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P234	Keep only in original packaging.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or 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.
P405	Store locked up.
P411+P235	Store at temperatures not exceeding 30 °C/86 °F. Keep cool.

2.3. Other hazards

According to Regulation (EC) No 1907/2006 (REACH) none of the substances, contained in this product are a PBT / vPvB substance.

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

Vapours may form explosive mixture with air.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Mixture containing following substances with additives :

Hazardous components

CAS No	Chemical name	Quantity
	EC No	Index No
	REACH No	
	GHS Classification	
6846-50-0	1-isopropyl-2,2-dimethyltrimethylene diisobutyrate	40 - 50 %
	229-934-9	01-2119451093-47
	Repr. 2, Aquatic Chronic 3; H361d H412	
1338-23-4	Reaction mass of butane-2,2-diyl dihydroperoxide and dioxydibutane-2,2-diyl dihydroperoxide	30 - 35 %
	700-954-4	01-2119514691-43
	Self-react. D, Acute Tox. 4, Acute Tox. 4, Skin Corr. 1B, Eye Dam. 1; H242 H332 H302 H314 H318	
123-42-2	Diacetone alcohol	5 - 15 %
	204-626-7	603-016-00-1
	01-2119473975-21	
	Flam. Liq. 3, Eye Irrit. 2, STOT SE 3; H226 H319 H335	
78-93-3	Butanone	1 - 3 %
	201-159-0	606-002-00-3
	01-2119457290-43	
	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336 EUH066	
7722-84-1	hydrogen peroxide	1 - 3 %
	231-765-0	008-003-00-9
	01-2119485845-22	
	Ox. Liq. 1, Acute Tox. 4, Acute Tox. 4, Skin Corr. 1A, Eye Dam. 1, STOT SE 3, Aquatic Chronic 3; H271 H332 H302 H314 H318 H335 H412	

Full text of H and EUH statements: see section 16.

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Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
1338-23-4	700-954-4	Reaction mass of butane-2,2-diyl dihydroperoxide and dioxydibutane-2,2-diyl dihydroperoxide	30 - 35 %
		inhalation: ATE = 11 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); oral: ATE = 500 mg/kg	
123-42-2	204-626-7	Diacetone alcohol	5 - 15 %
		dermal: LD50 = 13630 mg/kg; oral: LD50 = 2520 mg/kg Eye Irrit. 2; H319: >= 10 - 100	
78-93-3	201-159-0	Butanone	1 - 3 %
		dermal: LD50 = > 8000 mg/kg; oral: LD50 = 3400 mg/kg	
7722-84-1	231-765-0	hydrogen peroxide	1 - 3 %
		inhalation: ATE = 11 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: LD50 = 3000 mg/kg; oral: LD50 = 418 - 445 mg/kg Ox. Liq. 1; H271: >= 70 - 100 Ox. Liq. 2; H272: >= 50 - < 70 Skin Corr. 1A; H314: >= 70 - 100 Skin Corr. 1B; H314: >= 50 - < 70 Skin Irrit. 2; H315: >= 35 - < 50 Eye Dam. 1; H318: >= 8 - < 50 Eye Irrit. 2; H319: >= 5 - < 8 STOT SE 3; H335: >= 35 - 100	

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Remove contaminated soaked clothing immediately.
Adhere to personal protective measures when giving first aid.
Symptoms of poisoning may not appear for several hours. Keep under medical supervision for at least 48 hours.

After inhalation

Supply fresh air, if required oxygen, consult a physician.
If patient is not breathing, apply artificial respiration.
Remove the casualty into fresh air and keep him immobile.
In case of the person being unconscious put him/her in a stable side position.

After contact with skin

Wash off immediately with soap and plenty of water.
Consult a doctor if skin irritation persists.

After contact with eyes

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Seek medical treatment by eye specialist.

After ingestion

Summon a doctor immediately.
Rinse out mouth and give plenty of water to drink.
Never give anything by mouth to an unconscious person.
Induce vomiting only upon the advice of a physician.

4.2. Most important symptoms and effects, both acute and delayed

Harmful if swallowed or if inhaled.
Causes severe skin burns and eye damage.
Suspected of damaging the unborn child.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptoms.

SECTION 5: Firefighting measures

5.1. Extinguishing media

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Suitable extinguishing media

Alcohol-resistant foam, dry chemical, carbon dioxide (CO₂), water-spray.

Unsuitable extinguishing media

Full water jet.

5.2. Special hazards arising from the substance or mixture

Fire may produce:
carbon monoxide and carbon dioxide
Hydrocarbons

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective suit.

Additional information

Cool containers at risk with water spray jet.
Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

Ensure adequate ventilation.
Keep away sources of ignition.

For non-emergency personnel

Do not breathe vapours.
Avoid contact with skin, eyes and clothing.

For emergency responders

In case of vapour formation use respirator.
Use personal protective clothing.

6.2. Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

6.3. Methods and material for containment and cleaning up

For containment

Prevent spread over a wide area (e.g. by containment or oil barriers).

For cleaning up

Shovel into suitable container for disposal.
Soak up with inert absorbent material (e.g. vermiculite, clean sand).
Dilute larger quantities of desensitization agent (e.g. fuel oil) to < 10% before disposal.
Do not keep container sealed.

6.4. Reference to other sections

Observe protective instructions (see Sections 7 and 8).
Informations for disposal look up chapter 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Do not breathe vapours.
Wash hands before breaks and at the end of workday.
Keep away from acids, bases, heavy metal salts and reducing agents.

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking.
Keep away from open flames, hot surfaces and sources of ignition.
Use explosion-proof equipment / fittings and non-sparking tools.

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7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

- Keep only in original container.
- Keep container tightly closed in a dry, cool and well-ventilated place.
- Protect against direct sun radiation.
- Recommended storage temperature: -10°C - 30°C

Hints on joint storage

- Incompatible with:
Reducing agents, Heavy metal salts, Acids and bases.

Further information on storage conditions

- Keep away from food, drink and animal feeding stuffs.

7.3. Specific end use(s)

Hardener

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

CAS No	Substance	ppm	mg/m ³	fib/cm ³	Category	Origin
123-42-2	Diacetone alcohol	50	240		TWA (8 h)	
7722-84-1	Hydrogen peroxide	1	1.5		TWA (8 h)	
		2	3		STEL (15 min)	
78-93-3	Methyl ethyl ketone (MEK) (Butan-2-one)	200	600		TWA (8 h)	
		300	900		STEL (15 min)	
1338-23-4	Methyl ethyl ketone peroxides (MEKP)	0.2	1.5		STEL (15 min)	

Biological limit values

CAS No	Substance	Parameter	Value	Test material	Sampling time
78-93-3	Butan-2-one	Butan-2-one	70 µmol/L	Urine	Post shift

8.2. Exposure controls

Appropriate engineering controls

- Pay attention to anti-explosion protection rules.
- Ensure adequate ventilation, especially in confined areas.

Protective and hygiene measures

- Do not inhale vapours.
- Avoid contact with eyes and skin.
- Wash hands before breaks and immediately after handling the product.
- When using do not eat, drink or smoke.
- Remove and wash contaminated clothing before re-use.

Eye/face protection

- Tightly fitting goggles (EN 166).
- Eye wash bottle with pure water (EN 15154).

Hand protection

- Chemical protective gloves made of nitrile, nitrile/cotton, butyl or neoprene, with a minimum thickness of 0.7 mm, permeation time of approx. 480 minutes.

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This recommendation refers exclusively to the chemical compatibility and the lab test conforming to EN 374 carried out under lab conditions.

Requirements can vary as a function of the use. Therefore it is necessary to adhere additionally to the recommendations given by the manufacturer of protective gloves.

Pls. find examples in the protective gloves database under: <http://bestglove.com/site/chemrest/>

Skin protection

Long sleeved clothing (DIN EN ISO 6530)

Apron (EN 467).

Respiratory protection

In case of insufficient ventilation wear suitable respiratory equipment (gas filter type A) (EN 14387).

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	Colourless
Odour:	Characteristic

Test method

pH-Value: < 5

Changes in the physical state

Melting point/freezing point: - 20 °C

Boiling point or initial boiling point and boiling range: Decomposition

Sublimation point: Decomposition

Softening point: n. d.

Stock pint: < - 10 °C

Flash point: 78,5 °C CC

Flammability

Solid/liquid: n.a.

Gas: n.a.

Explosive properties

The product is considered non-explosive; nevertheless explosive vapour/air mixture can be generated.

Lower explosion limits: n.a.

Upper explosion limits: n.a.

Auto-ignition temperature: n.a.

Self-ignition temperature

Solid: n.a.

Gas: n.a.

Decomposition temperature: > 60 °C

Oxidizing properties

Organic peroxide type D, liquid

Vapour pressure: n. d.
(at 20 °C)

Density (at 20 °C): 1,02 - 1,03 g/cm³

Bulk density: n.a.

Water solubility: < 15 g/L
(at 20 °C)

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Solubility in other solvents

n. d.

Partition coefficient n-octanol/water:

n. d.

Viscosity / dynamic:

n. d.

Viscosity / kinematic:
(at 20 °C)18 - 20 mm²/s

Flow time:

n. d.

Relative vapour density:

n. d.

Evaporation rate:

n. d.

9.2. Other information

Refraction index: 1,434 (20°C)

SADT > + 60°C

Active oxygen: 9,0% - 9,3%

SECTION 10: Stability and reactivity

10.1. Reactivity

No decomposition if stored normally.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Reacts with:

Soil, rust, chemicals, strong acids and bases and accelerators (heavy metal salts, amines)

10.4. Conditions to avoid

To avoid thermal decomposition, do not overheat.

Self-Accelerating decomposition temperature (SADT) from 60°C (SADT).

10.5. Incompatible materials

Soil, rust, chemicals, strong acids and bases and accelerators (heavy metal salts, amines)

10.6. Hazardous decomposition products

Fire may produce:

Carbon monoxide and carbon dioxide

Hydrocarbons

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Harmful if swallowed.

Harmful if inhaled.

No toxicological data available.

Irritation and corrosivity

Causes severe skin burns and eye damage.

Causes serious eye damage.

Sensitising effects

Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction

Suspected of damaging the unborn child. (1-isopropyl-2,2-dimethyltrimethylene diisobutyrate)

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

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STOT-single exposure

Based on available data, the classification criteria are not met.

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.

Additional information on tests

Classification in compliance with the assessment procedure specified in the Regulation (EC) no 1272/2008.

11.2. Information on other hazards

Endocrine disrupting properties

No data available

SECTION 12: Ecological information

12.1. Toxicity

Ecological data are not available.

12.2. Persistence and degradability

No data available

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

Slightly water hazardous.

Further information

Do not release undiluted into wastewater or drainage ditch.

Do not release undiluted or in higher quantities into the groundwater, sewerage or waters.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Can be incinerated, when in compliance with local regulations.

Where possible recycling is preferred to disposal.

List of Wastes Code - residues/unused products

080409 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of adhesives and sealants (including waterproofing products); waste adhesives and sealants containing organic solvents or other hazardous substances; hazardous waste

Contaminated packaging

Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.

Packaging that cannot be cleaned should be disposed of like the product.

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SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number: UN 3105
14.2. UN proper shipping name: ORGANIC PEROXIDE TYPE D, LIQUID (Butanone peroxide)
14.3. Transport hazard class(es): 5.2
14.4. Packing group: -
Hazard label: 5.2



Classification code: P1
Special Provisions: 122 274
Limited quantity: 125 mL / 30 kg
Excepted quantity: E0
Transport category: 2
Tunnel restriction code: D

Inland waterways transport (ADN)

14.1. UN number: UN 3105
14.2. UN proper shipping name: ORGANIC PEROXIDE TYPE D, LIQUID (Butanone peroxide)
14.3. Transport hazard class(es): 5.2
14.4. Packing group: -
Hazard label: 5.2



Classification code: P1
Special Provisions: 122 274
Limited quantity: 125 mL / 30 kg
Excepted quantity: E0

Marine transport (IMDG)

14.1. UN number: UN 3105
14.2. UN proper shipping name: ORGANIC PEROXIDE TYPE D, LIQUID (Methyl ethyl ketone peroxide)
14.3. Transport hazard class(es): 5.2
14.4. Packing group: -
Hazard label: 5.2



Marine pollutant: No
Special Provisions: 122, 274
Limited quantity: 125 mL / 30 kg
Excepted quantity: E0
EmS: F-J, S-R

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 3105
14.2. UN proper shipping name: ORGANIC PEROXIDE TYPE D, LIQUID (Methyl ethyl ketone peroxide)

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14.3. Transport hazard class(es): 5.2

14.4. Packing group: -

Hazard label: 5.2



Special Provisions: A20 A150 A802

Limited quantity Passenger: Forbidden

Passenger LQ: Forbidden

Excepted quantity: E0

IATA-packing instructions - Passenger: 570

IATA-max. quantity - Passenger: 5 L

IATA-packing instructions - Cargo: 570

IATA-max. quantity - Cargo: 10 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

Handle in accordance with good industrial hygiene and safety practice.

14.7. Maritime transport in bulk according to IMO instruments

The transport takes place only in approved and appropriate packaging.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 40, Entry 75

2004/42/EC (VOC): < 20 %

Information according to 2012/18/EU (SEVESO III): P6b SELF-REACTIVE SUBSTANCES AND MIXTURES and ORGANIC PEROXIDES

Additional information

This product is regulated by Annex II of Regulation (EU) 2019/1148 on the marketing and use of explosives precursors. All suspicious transactions and significant disappearances and thefts have to be reported to the responsible national contact point. Sales personnel at all trading levels has to be instructed.

National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water hazard class (D): 1 - slightly hazardous to water

Additional information

Consider Chemical prohibition regulation.

15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 1,2,6,7,9,12,15.

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Abbreviations and acronyms

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
 RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses
 ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
 IMDG = International Maritime Code for Dangerous Goods
 IATA/ICAO = International Air Transport Association / International Civil Aviation Organization
 MARPOL = International Convention for the Prevention of Pollution from Ships
 IBC-Code = International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 REACH = Registration, Evaluation, Authorization and Restriction of Chemicals
 CAS = Chemical Abstract Service
 EN = European norm
 ISO = International Organization for Standardization
 DIN = Deutsche Industrie Norm
 PBT = Persistent Bioaccumulative and Toxic
 vPvB = Very Persistent and very Bio-accumulative
 LD = Lethal dose
 LC = Lethal concentration
 EC = Effect concentration
 IC = Median immobilisation concentration or median inhibitory concentration

Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]

Classification	Classification procedure
Self-react. D; H242	On basis of test data
Acute Tox. 4; H302	Calculation method
Acute Tox. 4; H332	Calculation method
Skin Corr. 1B; H314	Calculation method
Eye Dam. 1; H318	Calculation method
Repr. 2; H361d	Calculation method
Aquatic Chronic 3; H412	Calculation method

Relevant H and EUH statements (number and full text)

H225 Highly flammable liquid and vapour.
 H226 Flammable liquid and vapour.
 H242 Heating may cause a fire.
 H271 May cause fire or explosion; strong oxidiser.
 H302 Harmful if swallowed.
 H302+H332 Harmful if swallowed or if inhaled.
 H314 Causes severe skin burns and eye damage.
 H318 Causes serious eye damage.
 H319 Causes serious eye irritation.
 H332 Harmful if inhaled.
 H335 May cause respiratory irritation.
 H336 May cause drowsiness or dizziness.
 H361d Suspected of damaging the unborn child.
 H412 Harmful to aquatic life with long lasting effects.
 EUH066 Repeated exposure may cause skin dryness or cracking.

Further Information

Data of items 4 to 8, as well as 10 to 12, do partly not refer to the use and the regular employing of the product (in this sense consult information on use and on product), but to liberation of major amounts in case of



Safety Data Sheet

according to Regulation (EC) No 1907/2006



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accidents and irregularities.

The information describes exclusively the safety requirements for the product (s) and is based on the present level of our knowledge.

The delivery specifications are contained in the corresponding product sheet.

This data does not constitute a guarantee for the characteristics of the product(s) as defined by the legal warranty regulations.

"(n.a. = not applicable; n.d. = not determined)"

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)