

Printing date 11.12.2023 Version: 5 (replaces version 4) Revision: 16.02.2023

SECTION 1: Identification of the substance/mixture and of the company/undertaking

· 1.1 Product identifier

• Trade name: PEROXAN ME-50 LS-PX

• 1.2 Relevant identified uses of the substance or mixture and uses advised against

No further relevant information available.

· Application of the substance /

the mixture

Reaction initiator

· 1.3 Details of the supplier of the safety data sheet

· Manufacturer/Supplier: PERGAN GmbH

Hilfsstoffe für industrielle Prozesse

Schlavenhorst 71 D-46395 Bocholt Tel: +49 2871 9902-0 Fax: +49 2871 9902-50

· Further information obtainable

from: Qualified person: E-mail: msds@pergan.com

1.4 Emergency telephone

number: - Tel: +49 2871 9902-0

SECTION 2: Hazards identification

· 2.1 Classification of the substance or mixture

· Classification according to Regulation (EC) No 1272/2008

Org. Perox. D H242 Heating may cause a fire. Acute Tox. 4 H332 Harmful if inhaled.

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.

Repr. 2 H361d Suspected of damaging the unborn child.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

2.2 Label elements

· Labelling according to

Regulation (EC) No 1272/2008

The product is classified and labelled according to the GB CLP regulation.

Hazard pictograms



· Signal word Danger

· Hazard-determining

components of labelling: Reaction mass of butane-2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane

1-isopropyl-2,2-dimethyltrimethylene diisobutyrate

4-hydroxy-4-methylpentan-2-one hydrogen peroxide solution H242 Heating may cause a fire.

• **Hazard statements** H242 Heating may cause a H332 Harmful if inhaled.

H314 Causes severe skin burns and eye damage. H361d Suspected of damaging the unborn child. H412 Harmful to aquatic life with long lasting effects.

• **Precautionary statements** P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

smoking.

P220 Keep away from dirt, rust, chemicals in particular concentrated acids, alkalis and

accelerators (e. g. heavy metal compounds and amines).

P234 Keep only in original packaging. P264 Wash thoroughly after handling.

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing

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.

P405 Store locked up. P410 Protect from sunlight.

P411+P235 Store at temperatures not exceeding +30°C. Keep cool.

P420 Store separately

P501 Dispose of contents/container in accordance with local/regional/national/international

regulations.

Additional information: Product contains: Reportable explosives precursors. Making available, introduction, possession and use

according to Regulation (EU) 2019/1148, Article 9.

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· 2.3 Other hazards

· Results of PBT and vPvB assessment

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

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

SECTION 3: Composition/information on ingredients

· 3.2 Mixtures

· Dangerous components:		
CAS: 6846-50-0 EINECS: 229-934-9 Reg-No.: 01-2119451093-47	1-isopropyl-2,2-dimethyltrimethylene diisobutyrate Repr. 2, H361d; Aquatic Chronic 3, H412	40-50%
CAS: 1338-23-4 EC number: 700-954-4 Reg-No.: 01-2119514691-43	Reaction mass of butane-2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane Org. Perox. D, H242; Skin Corr. 1B, H314; Eye Dam. 1, H318; Acute Tox. 4, H302; Acute Tox. 4, H332	30-40%
CAS: 123-42-2 EINECS: 204-626-7 Index number: 603-016-00-1 Reg-No.: 01-2119473975-21	4-hydroxy-4-methylpentan-2-one Flam. Liq. 3, H226; Repr. 2, H361d; Eye Irrit. 2, H319; STOT SE 3, H335 Specific concentration limit: Eye Irrit. 2; H319: C ≥ 10 %	5-20%
CAS: 78-93-3 EINECS: 201-159-0 Index number: 606-002-00-3 Reg-No.: 01-2119457290-43	butanone Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336, EUH066	1-5%
		1-5%
CAS: 102-82-9 EINECS: 203-058-7 Reg-No.: 01-2119474898-14	tributylamine Acute Tox. 3, H311; Acute Tox. 1, H330; Acute Tox. 4, H302; Skin Irrit. 2, H315	0.1-1%

· Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

4.1 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.

Take care of personal protection for the first aider.

· 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.

Take affected persons into fresh air and keep quiet.

Immediately wash with water and soap and rinse thoroughly.

Immediately remove contaminated clothing.

· After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor. Drink plenty of water and provide fresh air. Call for a doctor immediately.

· After swallowing: 4.2 Most important symptoms

· After skin contact:

and effects, both acute and

No further relevant information available.

4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

GB



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SECTION 5: Firefighting measures

· 5.1 Extinguishing media

• Suitable extinguishing agents: CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

5.2 Special hazards arising from

the substance or mixture Under certain fire conditions, traces of other toxic gases cannot be excluded.

5.3 Advice for firefighters

· Protective equipment: Mouth respiratory protective device.

Do not inhale explosion gases or combustion gases.

Hydrocarbons, carbondioxide and -monoxid.

· Additional information Cool endangered receptacles with water spray.

Self-protection first!

SECTION 6: Accidental release measures

 6.1 Personal precautions, protective equipment and emergency procedures

Keep away from ignition sources.

In case of further temperature should be cooled with waterspray from a safe distance.

Wear breathing apparatus with filter A during decomposition of materials.

Wear protective equipment. Keep unprotected persons away.

· 6.2 Environmental precautions:

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

· 6.3 Methods and material for containment and cleaning up:

Dispose contaminated material as waste according to section 13.

Ensure adequate ventilation.

Large quantities should be diluted with suitable desensitation agent to a concentration below 10 % before

disposal.

Soak up with absorbant material (e. g. Vermiculit) and dispose of in accordance with government

regulations.

· 6.4 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.

In case of large spillage the environmental authority should be informed.

SECTION 7: Handling and storage

· 7.1 Precautions for safe

handling

Keep away from heat and direct sunlight.

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Prevent formation of aerosols

Wear suitable respiratory protective device when decanting larger quantities without extractor facilities.

Do not refill residue into storage receptacles. Restrict the quantity stored at the work place.

Use only in well ventilated areas.

Before break and at the end of work hands should be thoroughly washed.

Only use tools made of suitable materials (e. g. polyethylene or stainless steel).

Keep away from dirt, rust, chemicals in particular concentrated acids, alkalis and accelerators (e. g. heavy-

metal compounds and amines). Avoid contact with skin and eyes. While using do not eat, drink or smoke.

Avoid shock and friction



Do not smoke.

Information about fire - and explosion protection:

Protect from heat

Prevent impact and friction.

Fumes can combine with air to form an explosive mixture.



Wear shoes with conductive soles.



Avoid open flames, sparks, direct sunlight and other sources of ignition.

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· 7.2 Conditions for safe storage, including any incompatibilities

· Storage: Requirements to be met by Pay attention to the special requirements of your local autorithies for storing dangerous goods.

storerooms and receptacles:

Store only in the original receptacle. Prevent any seepage into the ground.

Use only receptacles specifically permitted for this substance/product.

· Information about storage in

one common storage facility:

Do not store or park organic peroxide together with heavy metal compounds and amines.

Store away from foodstuffs, drinks and feeding stuffs.

· Further information about

storage conditions:

Keep container tightly sealed. Protect from heat and direct sunlight. Protect from contamination.

Store under lock and key and out of the reach of children.

· Recommended storage temperature (To maintain

quality):

0 +30 °C

5.2 Storage class:

· 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

0.014 mg/l (AF 50)

5.29 mg/kg sed dw

PNEC Freshwater PNEC Freshwater sed

· 8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:						
123-42-2 4-hydroxy-4-methylpentan-2-one						
WEL (Gre		alue: 362 mg/m³, 75 ppm lue: 241 mg/m³, 50 ppm				
78-93-3 bi	78-93-3 butanone					
WEL (Gre	at Britain) Short-term v	alue: 899 mg/m³, 300 ppm				
(-		lue: 600 mg/m³, 200 ppm				
IOELV (EU) Short-term val		alue: 900 mg/m³, 300 ppm lue: 600 mg/m³, 200 ppm				
7722-84-1	hydrogen peroxide so	lution				
WEL (Gre	at Britain) Short-term va Long-term va	alue: 2.8 mg/m³, 2 ppm lue: 1.4 mg/m³, 1 ppm				
· DNELs	DNELs					
6846-50-0	1-isopropyl-2,2-dimet	nyltrimethylene diisobutyrate				
Dermal	DNEL Longterm System	n 5 mg/kg bw/day (Worker)				
Inhalative	DNEL Longterm System	n 17.62 mg/m3 (Worker)				
1338-23-4	Reaction mass of but	ane-2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane				
Dermal	DNEL Longterm System	n 1.43 mg/kg bw/day (Worker)				
Inhalative	DNEL Acute Systemic	7.55 mg/m3				
	DNEL Longterm System	n 2.52 mg/m3 (Worker)				
123-42-2	l-hydroxy-4-methylpen					
Dermal		n 467 mg/kg bw/day (Worker)				
Inhalative	DNEL Longterm System	n 32.6 mg/m3 (Worker)				
78-93-3 bi						
Dermal		n 1,161 mg/kg bw/day (Worker)				
		n 600 mg/m3 (Worker)				
	hydrogen peroxide so					
	DNEL Longterm Local	1.4 mg/m3 (Worker)				
102-82-9 tributylamine						
Inhalative	DNEL Acute Systemic	10.6 mg/m3 (Worker)				
		5.3 mg/m3 (Worker)				
	DNEL Longterm Local	15.2 mg/m3 (Worker)				
· PNECs	PNECs					
	6846-50-0 1-isopropyl-2,2-dimethyltrimethylene diisobutyrate					
PNEC Ma	rinewater sed 0.529 mg	/kg sed dw (-)				

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(Contd. of page 4) PNEC Soil 1.05 mg/kg soil dw PNEC STP 3 mg/l (AF 10) **PNEC Marinewater** 0.001 mg/l (AF 500) 1338-23-4 Reaction mass of butane-2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane PNEC Marinewater sed 0.009 mg/kg sed dw 0.006 mg/l (AF 1.000) PNEC Freshwater PNEC Freshwater sed 0.088 mg/kg sed dw PNFC Soil 0.014 mg/kg soil dw PNEC STP 1.2 mg/l (AF 10) 0.001 mg/l (AF 10.000) **PNEC Marinewater** 123-42-2 4-hydroxy-4-methylpentan-2-one PNEC Marinewater sed | 0.74 mg/kg sed dw 2 mg/l (AF 50) PNEC Freshwater 7.4 mg/kg sed dw PNEC Freshwater sed PNFC Soil 0.31 mg/kg soil dw PNEC STP 100 mg/l (AF 10) PNFC Marinewater 0.2 mg/l (AF 500) 7722-84-1 hydrogen peroxide solution PNEC Marinewater sed | 0.047 mg/kg sed dw **PNEC Freshwater** 0.013 mg/l (AF 50) PNEC Freshwater sed 0.047 mg/kg sed dw PNEC Soil 0.002 mg/kg soil dw PNEC STP 4.66 mg/l (AF 100) **PNEC Marinewater** 0.013 mg/l (AF 50) 102-82-9 tributylamine PNEC Marinewater sed | 3.59 mg/kg sed dw **PNEC Freshwater** 0.008 mg/l (AF 1.000) PNEC Freshwater sed 35.85 mg/kg sed dw PNEC Soil 7.17 mg/kg soil dw PNEC STP 100 mg/l (AF 1)

· Ingredients with biological limit values:

78-93-3 butanone

PNEC Marinewater

BMGV (Great Britain) 70 µmol/L

Medium: urine

Sampling time: post shift Parameter: butan-2-one

0.0008 mg/l (AF 10.000)

• Additional information: The lists valid during the making were used as basis.

8.2 Exposure controls

· Appropriate engineering

controls No further data; see section 7.

 \cdot Individual protection measures, such as personal protective equipment

· General protective and

hygienic measures: The usual precautionary measures are to be adhered to when handling chemicals.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing Wash hands before breaks and at the end of work.

Store protective clothing separately. Avoid contact with the eyes and skin. Do not eat, drink, smoke or sniff while working.

Use skin protection cream for skin protection.

Be sure to clean skin thoroughly after work and before breaks.

Respiratory protection: In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer

exposure use self-contained respiratory protective device.

Use suitable respiratory device when it exceed exposure limit and when insufficiently ventilated.



Filter A2

· Hand protection Only use chemical-protective gloves with CE-labelling of category III.

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

Protective gloves

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(Contd. of page 5) Material of gloves The selection of the suitable gloves does not only depend on the material, but also on further marks of

Fluid

Colourless

Characteristic

Not applicable.

Not applicable.

May cause fire.

Not determined.

Not determined.

+60 °C (SADT)

Not determined.

Not determined.

Not determined.

Undetermined.

not determined Not determined.

Not determined.

Not determined.

Not determined.

1.01 g/cm³

> SADT

Not determined.

quality and varies from manufacturer to manufacturer.

Butvl rubber, BR

Fluorocarbon rubber (Viton)

Nitrile rubber, NBR

Neoprene

Penetration time of glove

material

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

Eye/face protection

Tightly sealed goggles

· Body protection:

Protective work clothing

SECTION 9: Physical and chemical properties

· 9.1 Information o	n basic physical	and chemical	properties
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General Information

· Physical state · Colour:

· Odour: Odour threshold:

· Melting point/freezing point: · Boiling point or initial boiling point and boiling range

· Flammability

· Lower and upper explosion limit

· Lower: · Upper:

Flash point: · Decomposition temperature:

· pH

· Viscosity:

· Kinematic viscosity

Dynamic:

· Solubility

· water:

· Partition coefficient n-octanol/water (log value)

· Vapour pressure:

Density and/or relative density Density at 20 °C:

Relative density

· Vapour density · 9.2 Other information

· Appearance:

Fluid

· Form: · Important information on protection of health and environment,

and on safety.

Ignition temperature:

Explosive properties:

· Change in condition Evaporation rate

Product is not selfigniting.

Product is not explosive. However, formation of explosive air/vapour

mixtures are possible.

Not determined.

· Information with regard to physical hazard classes

- Explosives · Flammable gases

 Aerosols Oxidising gases · Gases under pressure

Flammable liquids Flammable solids

· Self-reactive substances and mixtures · Pyrophoric liquids Pyrophoric solids

Void Void Void

Void

Void

Void

Void

Void

Void Void

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Self-heating substances and mixtures
Substances and mixtures, which emit flammable gases in
contact with water
Void

contact with water Void
Oxidising liquids Void
Oxidising solids Void

Organic peroxides
 Corrosive to metals
 Heating may cause a fire.
 Void

• Corrosive to metals Void
• Desensitised explosives Void
• Other safety characteristics

• Active oxygen 8.8 - 9.3 %

SECTION 10: Stability and reactivity

• **10.1 Reactivity** No further relevant information available.

10.2 Chemical stability
Thermal decomposition /
conditions to be avoided:

SADT (Self Accelerating Decomposition Temperature) is the lowest temperature at which self accelerating decomposition may occur with substance in the packaging as used in transport. A dangerous self-accelerating decomposition reaction and, under certain circumstances, explosion or fire can be cause

accelerating decomposition reaction and, under certain circumstances, explosion or fire can be ca decomposition at and above the temperature. Contact with incompatible substances can cause decomposition at or below the SADT.

No decomposition if used and stored according to specifications.

To avoid thermal decomposition do not overheat.

· 10.3 Possibility of hazardous

reactions
10.4 Conditions to avoid

Self-accelerating decomposition at SADT. No further relevant information available.

· 10.5 Incompatible materials:

Rapid decomposition by dirt, rust, chemicals in particular concentrated acids, alkalis and accelerators (e. g.

heavy-metal compounds and amines).

· 10.6 Hazardous decomposition

products:

Hydrocarbons, carbondioxide and -monoxid.

No hazardous decomposition products if used and stored according to specifications.

Additional information: Emergency procedures will vary depending on conditions. The customer should have an emergency

response plane in place.

SECTION 11: Toxicological information

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

· Acute toxicity Harmful if inhaled. · LD/LC50 values relevant for classification:

6846-50-0 1-isopropyl-2,2-dimethyltrimethylene diisobutyrate

Oral LD50 3,200 mg/kg (rattus)
Dermal LD50 18,900 mg/kg (caviinae)

1338-23-4 Reaction mass of butane-2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane

Oral LD50 1,017 mg/kg (rattus)

123-42-2 4-hydroxy-4-methylpentan-2-one

Oral LD50 3,002 mg/kg (rattus)

102-82-9 tributylamine

Oral LD50 540 mg/kg (rattus)
Dermal LD50 250 mg/kg (cuniculosus)

Skin corrosion/irritation Causes severe skin burns and eye damage.

• Serious eye damage/irritation Causes serious eye damage.

• Reproductive toxicity Suspected of damaging the unborn child.

· 11.2 Information on other hazards

· Endocrine disrupting properties

78-93-3 butanone List II

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SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic toxicity:

1338-23-4 Reaction mass of butane-2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane

LC50 / 96h | 44.2 mg/l (-)

78-93-3 butanone

LC50 / 96h 3,220 mg/l (pimephales promelas)

EC50 / 48h | 5,091 mg/l (daphnia magna)

- 12.2 Persistence and degradability
- · Degree of elimination:
- · Classification:

6846-50-0 1-isopropyl-2,2-dimethyltrimethylene diisobutyrate

Degradation (Readily biodegradable, failing 10-d wind) (OECD 301 B)

1338-23-4 Reaction mass of butane-2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane

Degradation (Readily biodegradable) (OECD 301 B)

123-42-2 4-hydroxy-4-methylpentan-2-one

Degradation (Readily biodegradable) (OECD 301 A)

78-93-3 butanone

Degradation (Readily biodegradable) (OECD 301 D)

7722-84-1 hydrogen peroxide solution

Degradation (Readily biodegradable)

102-82-9 tributylamine

Degradation (Readily biodegradable) (OECD 301 B)

12.3 Bioaccumulative potential

	· Partition	Partition coefficient: nOctanol/water: [Log Kow]				
	1338-23-4	Reaction mass of butane-2,2-diyl dihydroperoxide and di-sec-butylhexaoxidane	2,04 (25°C)			
ľ	123-42-2	4-hydroxy-4-methylpentan-2-one	-0,09 (20°C)			
	78-93-3	butanone	0,3 (40°C)			
	7722-84-1	hydrogen peroxide solution	-1,57 (20°C)			

7722-84-1 hydrogen peroxide solution 102-82-9 tributylamine

3,34 (25 °C)

· Bioconcentration factor (BCF)

6846-50-0 1-isopropyl-2,2-dimethyltrimethylene diisobutyrate

BCF 183-194 (piscis) 102-82-9 tributylamine

BCF 7.3 12.4 Mobility in soil

· vPvB:

No further relevant information available.

12.5 Results of PBT and vPvB assessment

· PBT:

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

· 12.6 Endocrine disrupting

properties

For information on endocrine disrupting properties see section 11.

12.7 Other adverse effects

Harmful to fish · Remark:

Additional ecological information:

Must not reach sewage water or drainage ditch undiluted or unneutralised. General notes:

Harmful to aquatic organisms

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Recommendation



After diluting with a suitable desentisation agent to 10 %, the solution must be supplied to a special treatment (e. g. thermal utilization) under observance of all official regulations.

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

· Waste disposal key: Please contact your hazardous waste disposers to assign the right EWC-(European waste catalog)-

number

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Uncleaned packaging:

· ADR, IMDG, IATA

· Recommendation: This material and its container must be disposed of as hazardous waste.

SECTION 14: Transport information

· 14.1 UN number or ID number

UN3105

· 14.2 UN proper shipping name

KETONE PEROXIDE(S))

ORGANIC PEROXIDE TYPE D, LIQUID (METHYL ETHYL KETONE · IMDG, IATA

PEROXIDE(S))

· 14.3 Transport hazard class(es)

· ADR

· ADR



Class 5.2 (P1) Organic peroxides. 5.2

· Label

· IMDG, IATA



· Class 5.2 Organic peroxides.

· Label 5.2

· 14.4 Packing group

· ADR, IMDG, IATA Void

· 14.5 Environmental hazards: Not applicable.

· 14.6 Special precautions for user Warning: Organic peroxides. · Hazard identification number (Kemler code):

· Stowage Category

· Stowage Code SW1 Protected from sources of heat. · Segregation Code SG35 Stow "separated from" SGG1-acids SG36 Stow "separated from" SGG18-alkalis.

UN3105 ORGANIC PEROXIDE TYPE D, LIQUID (METHYL ETHYL

SG72 See 7.2.6.3.2.

· 14.7 Maritime transport in bulk according to IMO instruments Not applicable.

· Transport/Additional information:

· Limited quantities (LQ) 125 ml · Excepted quantities (EQ) Code: E0

Not permitted as Excepted Quantity

· Transport category D Tunnel restriction code

· RID / GGVSEB: like ADR

·IMDG

· Limited quantities (LQ) 125 ml

· Excepted quantities (EQ) Code: E0 Not permitted as Excepted Quantity

SECTION 15: Regulatory information

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

Poisons Act

· Regulated explosives precursors

7722-84-1 hydrogen peroxide solution

12%

Regulated poisons

None of the ingredients is listed.

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· Reportable explosives precursors

None of the ingredients is listed.

· Reportable poisons

None of the ingredients is listed.

- · Directive 2012/18/EU
- · Named dangerous substances

- ANNEX I None of the ingredients is listed.

Seveso category P6b SELF-REACTIVE SUBSTANCES AND MIXTURES and ORGANIC PEROXIDES

Qualifying quantity (tonnes) for the application of lower-tier requirements 50 t Qualifying quantity (tonnes) for the application of upper-tier requirements

DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment - Annex

None of the ingredients is listed.

Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))

None of the ingredients is listed.

Annex II - REPORTABLE EXPLOSIVES PRECURSORS

None of the ingredients is listed.

· Regulation (EC) No 273/2004 on drug precursors

78-93-3 butanone

Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug

precursors

78-93-3 butanone

- National regulations:
- Other regulations, limitations and prohibitive regulations
- · Please note: Take care of the respective local regulations.

SECTION 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.

· Relevant phrases H225 Highly flammable liquid and vapour.

Flammable liquid and vapour. H226 H242 Heating may cause a fire.

H271 May cause fire or explosion; strong oxidiser.

H272 May intensify fire; oxidiser. H302 Harmful if swallowed. Toxic in contact with skin. H311

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H318 Causes serious eye damage. H319 Causes serious eye irritation.

H330 Fatal if inhaled. Harmful if inhaled. H332

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.

· Contact: Tel: +49 2871 9902-0

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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 · Abbreviations and acronyms:

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals 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)

DNEL: Derived No-Effect Level (UK REACH)
PNEC: Predicted No-Effect Concentration (UK REACH)

LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

(Contd. on page 11)

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Trade name: PEROXAN ME-50 LS-PX

(Contd. of page 10)

Flam. Liq. 2: Flammable liquids – Category 2
Flam. Liq. 3: Flammable liquids – Category 3
Ox. Liq. 1: Oxidizing liquids – Category 1
Org. Perox. D: Organic peroxides – Type C/D
Acute Tox. 4: Acute toxicity – Category 4
Acute Tox. 3: Acute toxicity – Category 3
Acute Tox. 1: Acute toxicity – Category 1
Skin Corr. 1A: Skin corrosion/irritation – Category 1A
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Repr. 2: Reproductive toxicity – Category 2
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

* Data compared to the previous version altered.

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