

Printing date 28.02.2024 Version: 9 (replaces version 8) Revision: 28.02.2024

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

· 1.1 Product identifier

PEROXAN C124 · Trade name:

· CAS Number: 26322-14-5 247-611-0 · EC number: Registration number: 01-2119965138-30

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 For industrial use

· 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

Environment protection / Security of labour

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. F H242 Heating may cause a fire.

· 2.2 Label elements

Labelling according to

Regulation (EC) No 1272/2008

· Hazard pictograms

The substance is classified and labelled according to the CLP regulation.

GHS02

· Signal word Warning

· Hazard-determining

components of labelling: Dihexadecyl peroxodicarbonate **Hazard statements** H242 Heating may cause a fire.

P210 · Precautionary statements 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.

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

P370+P378 In case of fire: Use CO2, powder or water spray to extinguish.

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.

2.3 Other hazards

Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII. · PBT: This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII. · vPvB:

Determination of endocrine-

disrupting properties The product does not contain substances with endocrine disrupting properties.

# **SECTION 3: Composition/information on ingredients**

3.1 Substances

· CAS No. Description 26322-14-5 Dihexadecyl peroxodicarbonate

· Identification number(s)

 EC number: 247-611-0

ΙE



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#### **SECTION 4: First aid measures**

· 4.1 Description of first aid measures

General information:

Take care of personal protection for the first aider.

· After inhalation: Take affected persons into fresh air and keep quiet. After skin contact: Immediately remove contaminated clothing.

Rinse opened eye for several minutes under running water. After eye contact:

After swallowing: If symptoms persist consult doctor.

 4.2 Most important symptoms and effects, both acute and delayed

4.3 Indication of any immediate medical attention and special

treatment needed

No further relevant information available.

No further relevant information available.

# **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.

Hydrocarbons, carbondioxide and -monoxid.

5.3 Advice for firefighters

· Protective equipment: · Additional information Do not inhale explosion gases or combustion gases. 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.

After exceeding the emergency temperature must be diluted with a suitable desentisation agent to < 10 %.

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:



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

· 6.3 Methods and material for containment and cleaning up:

Ensure adequate ventilation.

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

Pick up mechanically, collect in a suitable receptacle and dispose in accordance with government

regulations.

· 6.4 Reference to other sections

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

#### **SECTION 7: Handling and storage**

7.1 Precautions for safe handling

Keep receptacles tightly sealed.

Keep away from heat and direct sunlight.

Open and handle receptacle with care.

Prevent formation of dust.

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.

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).

The product must be preserved, stored and transported continously cool.

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

metal compounds and amines). While using do not eat, drink or smoke. Do not generate flames or sparks.

Keep product and emptied container away from heat and sources of ignition.

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Avoid shock and friction.

Take precautionary measures against static discharges.



Do not smoke.

· Information about fire - and explosion protection:

Protect from heat.

Protect against electrostatic charges.

Prevent impact and friction.

Use explosion-proof apparatus / fittings and spark-proof tools. Dust can combine with air to form an explosive mixture.

Substance/product is oxidising when dry.

Product is not explosive. However, formation of explosive air/dust mixtures are possible.



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

Keep ignition sources away - Do not smoke.

· 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.

· Recommended storage temperature (To maintain

quality):

max.: +15°C

Control temperature: +30°C **Emergency temperature:** +35°C

Storage class: 5.2

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

# **SECTION 8: Exposure controls/personal protection**

8.1 Control parameters

· Ingredients with limit values that require monitoring at the

Not required. workplace:

DNELs

# 26322-14-5 Dihexadecyl peroxodicarbonate

DNEL Longterm System 33,33 mg/kg bw/day (Worker) Inhalative DNEL Longterm System 10 mg/m3 (Worker)

· PNECs

# 26322-14-5 Dihexadecyl peroxodicarbonate

PNEC STP | 12,2 mg/l (AF 100)

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.

· 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.

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.

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· Respiratory protection: Not necessary if room is well-ventilated. (Contd. of page 3)

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



Filter P2

· 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 · 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.

Butyl 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 on basic physical and chemical properties

· General Information

· Colour: · Odour:

· Melting point/freezing point:

Boiling point or initial boiling point and boiling range

Flammability · Flash point:

Decomposition temperature:

Solubility

· water:

Partition coefficient n-octanol/water (log value)

· Density and/or relative density

 Density at 20 °C: Bulk density at 20 °C:

· Particle characteristics

Whitish

Characteristic

Not applicable. Not applicable.

May cause fire.

Not applicable. +40 °C (SADT)

Not miscible or difficult to mix.

not determined

1,04 g/cm3 600 kg/m<sup>3</sup>

See section 3.

# 9.2 Other information

· Appearance:

Form:

Solid

· Important information on protection of health and environment, and on safety.

· Explosive properties:

Product is not explosive. However, formation of explosive air/dust mixtures are possible.

Information with regard to physical hazard classes	
Explosives	Void
Flammable gases	Void
Aerosols	Void
· Oxidising gases	Void
Gases under pressure	Void
Flammable liquids	Void
Flammable solids	Void
· Self-reactive substances and mixtures	Void
· Pyrophoric liquids	Void
· Pyrophoric solids	Void
· Self-heating substances and mixtures	Void

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Void

 $\cdot$  Substances and mixtures, which emit flammable gases in

contact with water Void
Oxidising liquids Void
Oxidising solids Void

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

Corrosive to metals
Desensitised explosives
Other safety characteristics

Active oxygen > 2,6 %

#### **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 cause 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

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

· LD/LC50 values relevant for classification:

# 26322-14-5 Dihexadecyl peroxodicarbonate

Oral LD50 >5.000 mg/kg (rattus)

Skin corrosion/irritation
 Serious eye damage/irritation
 Respiratory or skin

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

Respiratory or skin
sensitisation
Germ cell mutagenicity
Carcinogenicity
Reproductive toxicity
Based on av
Based on av
Based on av
Based on av

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

• STOT-repeated exposure
• Aspiration hazard

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

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

· 11.2 Information on other hazards

· Endocrine disrupting properties

Substance is not listed.

STOT-single exposure

#### **SECTION 12: Ecological information**

· 12.1 Toxicity

· Aquatic toxicity:

26322-14-5 Dihexadecyl peroxodicarbonate

LC50 / 96h >1.000 mg/l (poecilia reticulata)

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· 12.2 Persistence and degradability

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· Degree of elimination:

· Classification:

26322-14-5 Dihexadecyl peroxodicarbonate

Degradation (Readily biodegradable) (OECD 301 D)

12.3 Bioaccumulative potential

· Partition coefficient: nOctanol/water: [Log Kow]

15,1 (25°C)

· 12.4 Mobility in soil

No further relevant information available.

12.5 Results of PBT and vPvB assessment

· PBT:

This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII. · vPvB: This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

· 12.6 Endocrine disrupting properties

12.7 Other adverse effects

· Additional ecological information:

· General notes: Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water

The product does not contain substances with endocrine disrupting properties.

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

system.

# **SECTION 13: Disposal considerations**

· 13.1 Waste treatment methods

· Recommendation



After diluting with a suitable inert solid material to 10 %, the product 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.

· Uncleaned packaging:

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

# CECTION 44. Transport information

SECTION 14: Transport Information	
· 14.1 UN number or ID number · ADR, IMDG	UN3120
· 14.2 UN proper shipping name · ADR · IMDG	UN3120 ORGANIC PEROXIDE TYPE F, SOLID, TEMPERATURE CONTROLLED (DICETYLPEROXYDICARBONATE) ORGANIC PEROXIDE TYPE F, SOLID, TEMPERATURE CONTROLLED (DICETYLPEROXYDICARBONATE)
· 14.3 Transport hazard class(es)	
· ADR	
· Class · Label	5.2 (P2) Organic peroxides. 5.2

· IMDG



Class 5.2 Organic peroxides Label 5.2

· IATA

· Class Χ · Label Χ

· 14.4 Packing group

· ADR, IMDG Void

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(Contd. of page 6) · 14.5 Environmental hazards:

· Marine pollutant:

Nο

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

F-F.S-R · EMS Number:

 Stowage Category D

Stowage Code SW1 Protected from sources of heat.

SW3 Shall be transported under temperature control.

SG35 Stow "separated from" SGG1-acids · Segregation Code SG36 Stow "separated from" SGG18-alkalis.

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

· Transport/Additional information:

· Limited quantities (LQ)

Excepted quantities (EQ) Code: E0

Not permitted as Excepted Quantity · Transport category

Tunnel restriction code

· RID / GGVSEB: no admission

· Limited quantities (LQ) 0

· Excepted quantities (EQ) Code: E0

Not permitted as Excepted Quantity

·IATA

Remarks: no admission

+30°C · Control temperature: +35°C · Emergency temperature:

### **SECTION 15: Regulatory information**

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

Directive 2012/18/EU

Named dangerous substances

- ANNEX I Substance is not 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 Ш

Substance is not listed.

· REGULATION (EU) 2019/1148

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

Substance is not listed

· Annex II - REPORTABLE EXPLOSIVES PRECURSORS

Substance is not listed

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

Substance is not listed.

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

Substance is not listed.

#### **SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a quarantee for any specific product features and shall not establish a legally valid contractual relationship.

Department issuing SDS: Environment protection / Security of labour

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· Contact: Tel: +49 2871 9902-0 E-mail: mail@pergan.com

· Version number of previous version:

· 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)

International Transport of Dangerous Goods by Rail)

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

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

PyB: very Persistent, Bioaccumulative

vPvB: very Persistent and very Bioaccumulative Org. Perox. F: Organic peroxides – Type E/F

· \* Data compared to the previous version altered.

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