SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product name

Sealflex n

UFI:

3C0Q-30KP-700T-K6SM

https://my.chemius.net/p/DEasEb/en/pd/en

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

Relevant identified uses

Adhesive. Sealant.

Uses advised against

No information.

1.3 Details of the supplier of the safety data sheet

Supplier

DRYKOS SRL
Via Poli 29
00137 Roma, Italy
+3901711874992
info@drykos.com

1.4 Emergency Telephone Number

Emergency

111

Supplier

+3901711874992

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

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

Resp. Sens. 1; H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 (CLP)

Signal word: DANGER

Hazard statements:

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Supplemental hazard information (EU):

Not applicable.

Precautionary statements:

P260 Do not breathe vapours.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P501 Dispose of contents/container in accordance with applicable regulations.

Contains:

'4,4'-methylenediphenyl diisocyanate
bis[2-[2-(1-methylethyl)-3-oxazolidinyl]ethyl] hexan-1,2-diylbiscarbamate
a mixture of: α-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl-ω-hydroxypoly(oxyethylene); α-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl-ω-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyloxypoly(oxyethylene)
reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate

Special provisions

Persons already sensitised to diisocyanates may develop allergic reactions when using this product. Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product. This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used. As from 24 August 2023 adequate training is required before industrial or professional use.

2.3 Other hazards

PBT/vPvB

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Endocrine disrupting properties

The mixture does not contain substances that are included in the list of substances with endocrine disrupting properties established in accordance with Article 59 of the REACH Regulation, in a concentration ≥ 0.1 w/w %. The mixture does not contain substances identified as substances with endocrine disrupting properties according to the criteria of Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605, in a concentration ≥ 0.1 w/w %.

Additional information

No information.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

For mixtures see 3.2.

3.2 Mixtures

Name	CAS EC Index REACH	%	Classification according to Regulation (EC) No 1272/2008 (CLP)	Specific Concentration Limits	Notes for substances
hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	64742-48-9 919-857-5 - 01-2119463258-33	2,5-4,9	Flam. Liq. 3; H226 Asp. Tox. 1; H304 STOT SE 3; H336 EUH066	/	/
'4,4'-methylenediphenyl diisocyanate	101-68-8 202-966-0 615-005-00-9 01-2119457014-47	<1	Skin Irrit. 2; H315 Skin Sens. 1; H317 Eye Irrit. 2; H319 Acute Tox. 4; H332 Resp. Sens. 1; H334 STOT SE 3; H335 Carc. 2; H351 STOT RE 2; H373	Skin Irrit. 2; H315; C ≥ 5% Eye Irrit. 2; H319; C ≥ 5% Resp. Sens. 1; H334; C ≥ 0.1% STOT SE 3; H335; C ≥ 5%	C

Name	CAS EC Index REACH	%	Classification according to Regulation (EC) No 1272/2008 (CLP)	Specific Concentration Limits	Notes for substances
bis[2-[2-(1-methylethyl)-3-oxazolidinyl]ethyl] hexan-1,2-diylbiscarbamate	59719-67-4 261-879-6 - 01-2119983487-19	<1	Skin Sens. 1; H317 Eye Irrit. 2; H319 Aquatic Chronic 2; H411	/	/
o-xylene	95-47-6 202-422-2 601-022-00-9	< 0,5	Flam. Liq. 3; H226 Acute Tox. 4; H312 Skin Irrit. 2; H315 Acute Tox. 4; H332	/	C
a mixture of: α-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl-ω-hydroxypoly(oxyethylene); α-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyl-ω-3-(3-(2H-benzotriazol-2-yl)-5-tert-butyl-4-hydroxyphenyl)propionyloxypoly(oxyethylene)	- 400-830-7 607-176-00-3 01-0000015075-76	< 0,5	Skin Sens. 1; H317 Aquatic Chronic 2; H411	/	/
reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	1065336-91-5 915-687-0 -	<0,3	Skin Sens. 1; H317 Aquatic Acute 1; H400; M = 1 Aquatic Chronic 1; H410; M = 1	/	/

Notes for substances

C	Some organic substances may be marketed either in a specific isomeric form or as a mixture of several isomers. In this case the supplier must state on the label whether the substance is a specific isomer or a mixture of isomers.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General notes

Never give anything by mouth to an unconscious person. Place patient in recovery position and ensure airway patency. When in doubt or if feeling unwell seek medical assistance. Show the safety data sheet and label to the physician.

Following inhalation

Remove patient to fresh air - move out of dangerous area. Victim should rest in a warm place. Keep at rest in a position comfortable for breathing. Obtain professional medical help!

Following skin contact

Remove contaminated clothing immediately and dispose off safely. Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap. If necessary, shower with water. If symptoms develop and persist, seek medical attention.

Following eye contact

Immediately flush eyes with running water, keeping eyelids apart. If irritation persists, seek professional medical attention.

Following ingestion

Do not induce vomiting! Consult a physician. Show the physician the safety data sheet or label.

4.2 Most important symptoms and effects, both acute and delayed

Following inhalation

May cause allergy or asthma symptoms or breathing difficulties if inhaled. Coughing, sneezing, nasal discharge, labored breathing. Symptoms include: headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, unconsciousness.

Following skin contact

Contact with skin may cause irritation (redness, itching). May cause sensitisation by skin contact (itching, redness, rashes).

Following eye contact

Contact with eyes can cause irritation (redness, tearing, pain).

Following ingestion

May cause nausea/vomiting and diarrhea. May cause abdominal discomfort.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Water spray.
Carbon dioxide (CO_2).

Unsuitable extinguishing media

Full water jet.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

In case of a fire toxic gases can be generated; do not inhale gases/smoke. Smoke.

5.3 Advice for firefighters

Protective actions

In case of fire or heating do not breathe fumes/vapours. No action shall be taken involving any personal risk or without suitable training. Move undamaged containers from immediate hazard area if it can be done safely.

Special protective equipment for fire-fighters

Firefighters should wear appropriate protective clothing for firefighters (including helmets, protective boots and gloves) (BS EN 469) and self-contained breathing apparatus (SCBA) with a full face-piece (BS EN 137).

Additional information

Contaminated firefighting water must be disposed of in accordance with the regulations; do not allow to reach the sewage system.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Protective equipment

Wear suitable protective equipment; see Section 8. Refer to protective measures listed in Sections 7 and 8.

Precautionary measures

Ensure adequate ventilation. Keep away from sources of ignition and/or heat; No smoking!

Emergency procedures

No action shall be taken involving any personal risk or without suitable training. Prevent access to unprotected personnel. Evacuate the danger zone. Do not breathe vapour or mist. Avoid contact with skin, eyes and clothing.

For emergency responders

Use personal protective equipment.

6.2 Environmental precautions

Do not allow product to reach water/drains/sewage systems or permeable soil. In case of release into the environment, inform the relevant authorities.

6.3 Methods and material for containment and cleaning up

For containment

Stem the spill if this does not pose risks.

For cleaning up

Absorb product (with inert material), collect it in special container and dispose it to a licensed hazardous-waste disposal contractor. Clean contaminated area with plenty of water. Collect and dispose of contaminated washing water.

Other information

No information.

6.4 Reference to other sections

See also sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Protective measures

Measures to prevent fire

Ensure adequate ventilation.

Measures to prevent aerosol and dust generation

Use general or local exhaust ventilation to prevent inhaling vapours and aerosols.

Measures to protect the environment

Do not discharge into drains, surface water and soil. After use immediately close container tightly.

Other measures

No information.

Advice on general occupational hygiene

Avoid contact with skin and eyes. Do not breathe vapours/mist. Don't use empty containers before they have been cleaned. Before making transfer operations, make sure that there aren't any incompatible material residues in the containers. Before entering areas where food is eaten, remove contaminated clothing and protective equipment. Do not eat, drink or smoke while working. Wear suitable protective equipment; see Section 8.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Store in accordance with local regulations. Keep container in a well ventilated place. Keep away from food, drink and animal feeding stuffs.

Packaging materials

Store only in original container.

Requirements for storage rooms and vessels

Close opened containers after use. Put the containers upright to prevent from leaking. Do not store in unlabelled containers.

Storage temperature

No information.

Storage class

No information.

Further information on storage conditions

No information.

7.3 Specific end use(s)

Recommendations

No information.

Industrial sector specific solutions

No information.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational Exposure limit values

Name	mg/m^3	ml/m^3	Short-term value mg/m^3	Short-term value ml/m^3	Remark	Biological Tolerance Values
Cycloalkanes ≥C7	800	/	/	/	/	/
Xylene, o-,m-,p- or mixed isomers (1330-20-7)	220	50	441	100	Sk, BMGV	650 mmol methyl hippuric acid/mol creatinine in urine - Post shift
Isocyanates, all (as –NCO) Except methyl isocyanate	0.02	/	0.07	/	Sen	1 µmol isocyanate-derived diamine/mol creatinine in urine - At the end of the period of exposure

Information on monitoring procedures

BS EN 14042:2003 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents. BS EN 689:2018 Workplace exposure. Measurement of exposure by inhalation to chemical agents. Strategy for testing compliance with occupational exposure limit values. BS EN 482:2021

Workplace exposure. Procedures for the determination of the concentration of chemical agents. Basic performance requirements.

DNEL/DMEL values

For product

No information.

For components

Name	Type	Exposure route	exp. frequency	Remark	Value
'4,4'-methylenediphenyl diisocyanate	Worker	inhalation	long term local effects	/	0.05 mg/m³
'4,4'-methylenediphenyl diisocyanate	Worker	inhalation	short term local effects	/	0.1 mg/m³
'4,4'-methylenediphenyl diisocyanate	Consumer	inhalation	long term local effects	/	0.025 mg/m³
'4,4'-methylenediphenyl diisocyanate	Consumer	inhalation	short term local effects	/	0.05 mg/m³
o-xylene	Worker	inhalation	long term systemic effects	/	221 mg/m³
o-xylene	Worker	inhalation	short term systemic effects	/	442 mg/m³
o-xylene	Worker	inhalation	long term local effects	/	221 mg/m³
o-xylene	Worker	inhalation	short term local effects	/	442 mg/m³
o-xylene	Worker	dermal	long term systemic effects	/	212 mg/kg bw/day
o-xylene	Consumer	inhalation	long term systemic effects	/	65.3 mg/m³
o-xylene	Consumer	inhalation	short term systemic effects	/	260 mg/m³
o-xylene	Consumer	inhalation	long term local effects	/	65.3 mg/m³
o-xylene	Consumer	inhalation	short term local effects	/	260 mg/m³
o-xylene	Consumer	dermal	long term systemic effects	/	125 mg/kg bw/day
o-xylene	Consumer	oral	long term systemic effects	/	2.5 mg/kg bw/day
reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	Worker	inhalation	long term systemic effects	/	1.27 mg/m³

Name	Type	Exposure route	exp. frequency	Remark	Value
reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	Worker	dermal	long term systemic effects	/	1.8 mg/kg bw/day
reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	Consumer	inhalation	long term systemic effects	/	0.31 mg/m³
reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	Consumer	dermal	long term systemic effects	/	0.9 mg/kg bw/day
reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	Consumer	oral	long term systemic effects	/	0.18 mg/kg bw/day

PNEC values

For product

No information.

For components

Name	Exposure route	Remark	Value
'4,4'-methylenediphenyl diisocyanate	fresh water	/	3.7 µg/L
'4,4'-methylenediphenyl diisocyanate	water, intermittent release	/	37 µg/L
'4,4'-methylenediphenyl diisocyanate	marine water	/	0.37 µg/L
'4,4'-methylenediphenyl diisocyanate	fresh water sediment	dry weight	11.7 mg/kg
'4,4'-methylenediphenyl diisocyanate	marine water sediment	dry weight	1.17 mg/kg
'4,4'-methylenediphenyl diisocyanate	soil	dry weight	2.33 mg/kg
o-xylene	fresh water	/	0.044 mg/L
o-xylene	water, intermittent release	/	0.01 mg/L

Name	Exposure route	Remark	Value
o-xylene	marine water	/	0.004 mg/L
o-xylene	water, marine, intermittent release	/	0.001 mg/L
o-xylene	water treatment plant	/	1.6 mg/L
o-xylene	fresh water sediment	dry weight	2.52 mg/kg
o-xylene	marine water sediment	dry weight	0.252 mg/kg
o-xylene	soil	dry weight	0.852 mg/kg
reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	fresh water	/	0.002 mg/L
reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	water, intermittent release	/	0.009 mg/L
reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	marine water	/	0 mg/L
reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	water treatment plant	/	1 mg/L
reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	fresh water sediment	dry weight	1.05 mg/kg
reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	marine water sediment	dry weight	0.11 mg/kg
reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	soil	dry weight	0.21 mg/kg

8.2 Exposure controls

Appropriate engineering control

Substance/mixture related measures to prevent exposure during identified uses

Use good personal hygiene practices – wash hands at breaks and when done working with material. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothes. Do not eat, drink or smoke while working. Do not breathe vapours/aerosols.

Structural measures to prevent exposure

No information.

Organisational measures to prevent exposure

Remove all contaminated clothes immediately and wash them before reuse.

Technical measures to prevent exposure

Provide good ventilation and local exhaust in areas with increased concentration. Keep away from food, drink and animal feeding stuffs.

Personal protective equipment

Eye and face protection

Safety glasses with side protection (BS EN ISO 16321-1:2022).

Hand protection

Protective gloves (BS EN ISO 374).

Appropriate materials

Material	Thickness	Penetration Time	Remark
PVC	/	/	/
Neoprene	/	/	/
Natural rubber	/	/	/

Skin protection

Cotton protective clothing and shoes that cover the entire foot (BS EN ISO 20345:2022+A1:2024). Protective work clothing resistant to liquid chemicals (BS EN 14605:2005+A1:2009). (material: cotton, rubber, PVC, viton);

Respiratory protection

In case of insufficient ventilation wear suitable respiratory protection. Wear suitable protective breathing mask (BS EN 136) with filter A2-P2 (BS EN 14387). For dust/gas/ vapor concentrations above the applicable filter limit, in case of oxygen concentrations below 17% or in vague conditions, autonomous self-contained breathing apparatus should be used, according to standard BS EN 137, BS EN 138.

Thermal hazards

No information.

Environmental exposure controls

Substance/mixture related measures to prevent exposure

No information.

Instruction measures to prevent exposure

No information.

Organisational measures to prevent exposure

No information.

Technical measures to prevent exposure

Do not allow product to reach drains, sewage systems or ground water.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Important health, safety and environmental information

Physical state	liquid
Shape	No information.
Colour	according to specification
Odour	No information.

Odour threshold	No information.
Melting/freezing point or softening point	No information.
Boiling point or initial boiling point and boiling range	No information.
Flammability	No information.
Lower and upper explosion limit	No information.
Flash point	> 61 °C
Auto-ignition temperature	No information.
Decomposition temperature	No information.
pH	No information.
Viscosity	No information.
Solubility	No information.
Partition coefficient n-octanol/water (log value)	No information.
Vapour pressure	No information.
Density	1.4 g/cm^3
Relative vapour/gas density	No information.
Particle characteristics	No information.

9.2 Other information

Information with regard to physical hazard classes

No information.

Other safety characteristics

Weight organic solvents	4.84 % 67.79 g/l

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

The product is not reactive under normal conditions of use, storage and transport.

10.2 Chemical stability

Product is stable under normal conditions of use, recommended handling and storage conditions.

10.3 Possibility of hazardous reactions

No dangerous reactions occur under normal conditions of storage and use.

10.4 Conditions to avoid

No special precautions required. Consider the directions for use and storage.

10.5 Incompatible materials

Not known.

10.6 Hazardous decomposition products

Under normal use conditions no hazardous decomposition products are expected. In case of fire/explosion vapours/gases that pose a health hazard are released. Hazardous combustion products, see Section 5 of the safety data sheet.

SECTION 11: TOXICOLOGICAL INFORMATION

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

(a) Acute toxicity

For components

Name	Exposure route	Type	Species	Time	Value	Method	Remark
hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	oral	LD_{50}	rat	/	> 5000 mg/kg	/	/
hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	dermal	LD_{50}	rabbit	/	2000 mg/kg	/	/
hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	inhalation	LC_{50}	rat	4 h	5000 mg/m^3	/	/
'4,4'-methylenediphenyl diisocyanate	oral	LD_{50}	rat	/	> 2000 mg/kg bw	/	/
'4,4'-methylenediphenyl diisocyanate	dermal	LD_{50}	rabbit	/	> 9400 mg/kg bw	OECD 402	/
'4,4'-methylenediphenyl diisocyanate	inhalation	/	rat	/	490 mg/m^3	/	/
o-xylene	oral	LD_{50}	rat	/	3523 mg/kg	/	/
o-xylene	inhalation (vapours)	LC_{50}	rat	/	27124 mg/L/4h	/	/
o-xylene	dermal	LD_{50}	rabbit	24 h	12126 mg/kg	/	/

Name	Exposure route	Type	Species	Time	Value	Method	Remark
reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	oral	LD_{50}	rat (male/female)	/	3230 mg/kg	/	/
reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	dermal	LD_{50}	rat	/	> 3170 mg/kg	/	/

Additional information

The product is not classified as acutely toxic.

(b) Skin corrosion/irritation

For components

Name	Species	Time	result	Method	Remark
hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	rabbit	4 h	negative	/	/
'4,4'-methylenediphenyl diisocyanate	rabbit	4 h	Irritating.	/	/
o-xylene	rabbit	4 h	Irritating.	/	/
reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	rabbit	24 h	negative	/	/

Additional information

The product is not classified as irritating to the skin.

(c) Serious eye damage/irritation

For components

Name	Exposure route	Species	Time	result	Method	Remark
hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	/	rabbit	/	Negative.	/	/
'4,4'-methylenediphenyl diisocyanate	/	rabbit	24 h	Negative.	/	/
o-xylene	/	rabbit	1 h	It causes serious eye damage.	/	/
reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	/	rabbit	/	Negative.	/	/

Additional information

The product is not classified as an irritant to the eyes.

(d) Respiratory or skin sensitisation

For components

Name	Exposure route	Species	Time	result	Method	Remark
hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	dermal	guinea pig	/	Negative.	/	/
'4,4'-methylenediphenyl diisocyanate	dermal	guinea pig	/	Negative.	/	/
reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	dermal	guinea pig	/	Sensitizing.	/	/

Additional information

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

(e) (Germ cell) mutagenicity

For components

Name	Type	Species	Time	result	Method	Remark
hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	/	rat	/	Negative.	/	/
'4,4'-methylenediphenyl diisocyanate	/	rat	6 h	Negative.	/	/
o-xylene	/	mouse	/	Negative.	/	/

(f) Carcinogenicity

For components

Name	Exposure route	Type	Species	Time	Value	result	Method	Remark
hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	oral	/	rat	/	/	Positive	/	/

(g) Reproductive toxicity

For components

Name	Reproductive toxicity type	Type	Species	Time	Value	result	Method	Remark
hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	/	NOAEL	rat	/	> 20000 mg/m³	/	/	/
o-xylene	/	NOAEL	rat	/	500 mg/kg	/	/	/
reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	/	NOAEL	rat	/	30 mg/kg	/	/	oral

Summary of evaluation of the CMR properties

The product is not classified as carcinogenic, mutagenic or toxic for reproduction.

(h) STOT-single exposure

No information.

Additional information

STOT SE (single exposure): Not classified.

(i) STOT-repeated exposure

No information.

Additional information

STOT RE (repeated exposure): Not classified.

(j) Aspiration hazard

No information.

Additional information

Aspiration hazard: Not classified.

Symptoms related to the physical, chemical and toxicological characteristics

No information.

Interactive effects

No information.

11.2 Information on other hazards

Endocrine disrupting properties

For product

The mixture does not contain substances that are included in the list of substances with endocrine disrupting properties established in accordance with Article 59 of the REACH Regulation, in a concentration ≥ 0.1 w/w %. The mixture does not contain substances identified as substances with endocrine disrupting properties according to the criteria of Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605, in a concentration ≥ 0.1 w/w %.

Other information

No information.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Acute (short-term) toxicity

For components

Name	Type	Value	Exposure time	Species	Organism	Method	Remark
hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	LL_{50}	10 mg/L	96 h	fish	*Oncorhynchus mykiss*	/	/
hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	NOELR	2.6 mg/L	/	algae	*Pseudokirchneriella subcapitata*	/	/
'4,4'-methylenediphenyl diisocyanate	LC_{50}	1000 mg/L	96 h	fish	*Danio rerio*	/	/

Name	Type	Value	Exposure time	Species	Organism	Method	Remark
'4,4'-methylenediphenyl diisocyanate	LC_{50}	1000 mg/L	24 h	crustacea	*Daphnia magna*	OECD 202	/
'4,4'-methylenediphenyl diisocyanate	EC_{50}	1640 mg/L	72 h	algae	*Scenedesmus subspicatus*	OECD 201	/
'4,4'-methylenediphenyl diisocyanate	EC_{50}	100 mg/L	3 h	bacteria	Activated sludge	OECD 209	/
o-xylene	LC_{50}	2.6 mg/L	96 h	fish	/	OECD 203	/
o-xylene	NOEC	0.71 mg/L	/	fish	*Danio rerio*	OECD 210	/
o-xylene	LC_{50}	1 mg/L	24 h	crustacea	*Daphnia magna*	OECD 202	/
o-xylene	EC_{50}	2.2 mg/L	72 h	algae	/	/	/
reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	LC_{50}	0.9 mg/L	96 h	fish	/	/	/
reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	EC_{50}	1.68 mg/L	72 h	algae	/	/	/
reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	NOEC	1 mg/L	/	crustacea	*Daphnia magna*	OECD 211	/

Name	Type	Value	Exposure time	Species	Organism	Method	Remark
reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	EC_{20}	≥ 100 mg/L	3 h	/	Activated sludge	/	/

Chronic (long-term) toxicity

For components

Name	Type	Value	Exposure time	Species	Organism	Method	Remark
hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, <2% aromatics	EL_{50}	4.5 mg/l	21 days	crustacea	*Daphnia magna*	/	/
'4,4'-methylenediphenyl diisocyanate	NOEC	10 mg/l	21 days	crustacea	*Daphnia magna*	OECD 202	/
'4,4'-methylenediphenyl diisocyanate	LC_{50}	1000 mg/kg	14 days	earthworms	*Eisenia fetida*	/	/
'4,4'-methylenediphenyl diisocyanate	LC50	1000 mg/kg	14 days	Terrestrial plants	/	OECD 208	/
o-xylene	NOEC	1.17 mg/l	21 days	crustacea	*Ceriodaphnia dubia*	/	/

12.2 Persistence and degradability

Abiotic degradation, physical- and photo-chemical elimination

No information.

Biodegradation

For components

Name	Type	Rate	Time	Evaluation	Method	Remark
'4,4'-methylenediphenyl diisocyanate	Theoretical oxygen demand	0	/	not readily biodegradable	OECD 302C	/
o-xylene	/	90 %	28 days	readily biodegradable	/	/

Name	Type	Rate	Time	Evaluation	Method	Remark
reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	biodegradability	38 %	28 days	not readily biodegradable	/	/

12.3 Bioaccumulative potential

Partition coefficient n-octanol/water (log value)

No information.

Bioconcentration factor (BCF)

For components

Name	Species	Organism	Value	Duration	Evaluation	Method	Remark
'4,4'-methylenediphenyl diisocyanate	BCF	/	200	/	bioaccumulative	OECD 305 E	/
o-xylene	BCF	/	25.9	/	bioaccumulative	/	/
reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate	/	/	/	/	Does not bioaccumulate.	/	/

12.4 Mobility in soil

Known or predicted distribution to environmental compartments

No information.

Surface tension

No information.

Adsorption/Desorption

No information.

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

For product

The mixture does not contain substances that are included in the list of substances with endocrine disrupting properties established in accordance with Article 59 of the REACH Regulation, in a concentration ≥ 0.1 w/w %. The mixture does not

contain substances identified as substances with endocrine disrupting properties according to the criteria of Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605, in a concentration ≥ 0.1 w/w %.

12.7 Other adverse effects

No information.

12.8 Additional information

For product

Product is not classified as hazardous for environment. Do not allow to reach ground water, water courses or sewage system.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product / Packaging disposal

Waste chemical

Dispose of in accordance with applicable waste disposal regulation. Recover if possible. Do not allow product to reach drains/sewage systems. Disposal must be made according to official regulations: deliver it to authorised collector/remover/transformer of hazardous waste. Waste codes should be assigned by the user based on the application for which the product was used. HP 13 Sensitising.

Waste codes / waste designations according to LoW

No information.

Packaging

Dispose of in accordance with applicable waste disposal regulation. Deliver completely emptied containers to approved waste disposal authorities. Uncleaned containers are classified as hazardous waste - they should be handled in the same manner as the contents. Uncleaned containers should not be perforated, cut or welded. Empty containers represent a fire hazard as they may contain flammable product residues and vapours.

Waste codes / waste designations according to LoW

No information.

Waste treatment-relevant information

No information.

Sewage disposal-relevant information

No information.

Other disposal recommendations

No information.

SECTION 14: TRANSPORT INFORMATION

14.1 UN number or ID number

ADR/RID	IMDG	IATA	ADN
Not dangerous according to transport regulations.	Not dangerous according to transport regulations.	Not dangerous according to transport regulations.	Not dangerous according to transport regulations.

14.2 UN proper shipping name

ADR/RID	IMDG	IATA	ADN
Not given/not applicable	Not given/not applicable	Not given/not applicable	Not given/not applicable

14.3 Transport hazard class(es)

ADR/RID	IMDG	IATA	ADN
Not given/not applicable	Not given/not applicable	Not given/not applicable	Not given/not applicable

14.4 Packing group

ADR/RID	IMDG	IATA	ADN
Not given/not applicable	Not given/not applicable	Not given/not applicable	Not given/not applicable

14.5 Environmental hazards

ADR/RID	IMDG	IATA	ADN
NO	NO	NO	NO

14.6 Special precautions for user

ADR/RID	IMDG	IATA	ADN
Limited quantities: **Not given/not applicable**	Limited quantities: **Not given/not applicable**		Limited quantities: **Not given/not applicable**

14.7 Maritime transport in bulk according to IMO instruments

ADR/RID	IMDG	IATA	ADN
	Not given/not applicable		

SECTION 15: REGULATORY INFORMATION

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

- Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (including last amendment Commission Regulation (EU) 2020/878)

- Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures

Information according 2004/42/EC about limitation of emissions of volatile organic compounds (VOC-guideline)

not applicable

Ingredients according to Regulation (EC) No 648/2004 on detergents

No information.

Special instructions

Regulation (EC) No. 1907/2006 (REACH) Annex XVII - Terms of restriction: 52. Regulation (EC) No. 1907/2006 (REACH) Annex XVII - Terms of restriction: 56. Regulation (EC) No. 1907/2006 (REACH) Annex XVII - Terms of restriction: 74. Regulation (EC) No. 1907/2006 (REACH) Annex XVII - Terms of restriction: 3, 40, 75.

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16: OTHER INFORMATION

Indication of changes

No information.

Key literature references and sources for data

No information.

Abbreviations and acronyms

ATE - Acute Toxicity Estimate
ADR - Agreement concerning the International Carriage of Dangerous Goods by Road
ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
CEN - European Committee for Standardisation
C&L - Classification and Labelling
CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
CAS# - Chemical Abstracts Service number
CMR - Carcinogen, Mutagen, or Reproductive Toxicant
CSA - Chemical Safety Assessment
CSR - Chemical Safety Report
DMEL - Derived Minimal Effect Level
DNEL - Derived No Effect Level
DPD - Dangerous Preparations Directive 1999/45/EC
DSD - Dangerous Substances Directive 67/548/EEC
DU - Downstream User
EC - European Community
ECHA - European Chemicals Agency
EC-Number - EINECS and ELINCS Number (see also EINECS and ELINCS)
EEA - European Economic Area (EU + Iceland, Liechtenstein and Norway)
EEC - European Economic Community
EINECS - European Inventory of Existing Commercial Substances
ELINCS - European List of notified Chemical Substances
EN - European Standard
EQS - Environmental Quality Standard
EU - European Union
Euphrac - European Phrase Catalogue
EWC - European Waste Catalogue (replaced by LoW – see below)
GES - Generic Exposure Scenario
GHS - Globally Harmonized System
IATA - International Air Transport Association
ICAO-TI - Technical Instructions for the Safe Transport of Dangerous Goods by Air
IMDG - International Maritime Dangerous Goods
IMSBC - International Maritime Solid Bulk Cargoes
IT - Information Technology
IUCLID - International Uniform Chemical Information Database
IUPAC - International Union for Pure Applied Chemistry
JRC - Joint Research Centre
Kow - octanol-water partition coefficient
LC50 - Lethal Concentration to 50 % of a test population
LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose)
LE - Legal Entity
LoW - List of Wastes (see http://ec.europa.eu/environment/waste/framework/list.htm)
LR - Lead Registrant
M/I - Manufacturer / Importer
MS - Member States
MSDS - Material Safety Data Sheet
OC - Operational Conditions
OECD - Organization for Economic Co-operation and Development
OEL - Occupational Exposure Limit
OJ - Official Journal
OR - Only Representative
OSHA - European Agency for Safety and Health at work
PBT - Persistent, Bioaccumulative and Toxic substance
PEC - Predicted Effect Concentration

PNEC(s) - Predicted No Effect Concentration(s)
PPE - Personal Protection Equipment
(Q)SAR - Qualitative Structure Activity Relationship
REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals (Regulation (EC) No 1907/2006)
RID - Regulations concerning the International Carriage of Dangerous Goods by Rail
RIP - REACH Implementation Project
RMM - Risk Management Measure
SCBA - Self-Contained Breathing Apparatus
SDS - Safety data sheet
SIEF - Substance Information Exchange Forum
SME - Small and Medium sized Enterprises
STOT - Specific Target Organ Toxicity
(STOT) RE - Repeated Exposure
(STOT) SE - Single Exposure
SVHC - Substances of Very High Concern
UN - United Nations
vPvB - Very Persistent and Very Bioaccumulative

List of relevant H phrases

H226 Flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H312 Harmful in contact with skin.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 May cause respiratory irritation.
H336 May cause drowsiness or dizziness.
H351 Suspected of causing cancer.
H373 May cause damage to organs through prolonged or repeated exposure.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.
EUH066 Repeated exposure may cause skin dryness or cracking.

☑ Provided correct labelling of the product
☑ Compliance with the local legislation
☑ Provided correct classification of the product
☑ Provided adequate transport data

The information of this SDS is based on the present state of our knowledge and meets the requirements of EU and nationallaws. The user's working conditions however, are beyond our knowledge and control. The product is not to be used for purposesother than those specified under section 1 without a written permission. It remains the responsibility of the user to ensure thatthe necessary steps are taken to meet the laws and regulations. Handling of the product may only be done by people above 18years of age, who are satisfactorily informed of how to do the work, the hazardous properties and necessary safety precautions.The information given in this SDS is to describe the product

only in terms of health and safety requirements and should not,therefore, be construed as guaranteeing specific properties.