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

1.1 Product identifier

Product name

DRYINJECT 800 COMP. A

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

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

Relevant identified uses

Hydro-expansive, flexible, solvent-free, injectable polyurethane resin

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

112

Supplier

+3901711874992

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

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

Skin Irrit. 2; H315 Causes skin irritation.
Skin Sens. 1; H317 May cause an allergic skin reaction.
Eye Irrit. 2; H319 Causes serious eye irritation.
Acute Tox. 4; H332 Harmful if inhaled.
Resp. Sens. 1B; H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
STOT SE 3; H335 May cause respiratory irritation.
Carc. 2; H351 Suspected of causing cancer.
STOT RE 2; H373 May cause damage to organs through prolonged or repeated exposure.

2.2 Label elements

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

Signal word: DANGER

Hazard statements:

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.
H351 Suspected of causing cancer.
H373 May cause damage to organs through prolonged or repeated exposure.

Supplemental hazard information (EU):

Not applicable.

Precautionary statements:

P201 Obtain special instructions before use.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308 + P313 IF exposed or concerned: Get medical advice/attention.
P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

Contains:

Reaction mass of 4,4'-methylenediphenyl diisocyanate and 2,2'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate
'4,4'-methylenediphenyl diisocyanate
4,4'-Methylenediphenyl diisocyanate, oligomers

Special provisions

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
Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(pisocyanatobenzyl) phenyl isocyanate	9016-87-9 905-806-4 - 01-2119457015-45	24-<25,5	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% STOT SE 3; H335; C ≥ 5% inhalation: ATE = 11 mg/l (vapours)	/
Reaction mass of 4,4'-methylenediphenyl diisocyanate and 2,2'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate	9016-87-9 905-804-3 -	24-<25,5	Skin Irrit. 2; H315 Skin Sens. 1; H317 Eye Irrit. 2; H319 Acute Tox. 4; H332 Resp. Sens. 1B; 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. 1B; H334; C ≥ 0.1% STOT SE 3; H335; C ≥ 5% inhalation: ATE = 11 mg/l (vapours)	/
'4,4'-methylenediphenyl diisocyanate	101-68-8 202-966-0 615-005-00-9	2-<2.5	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% inhalation: ATE = 1.5 mg/l (dusts or mists)	C
4,4'-Methylenediphenyl diisocyanate, oligomers	25686-28-6 500-040-3 - 01-2119457013-49	0.89-<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% inhalation: ATE = 11 mg/l (vapours)	/

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

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. The exposed person may need to be kept under medical surveillance for 48 hours.

Following skin contact

Immediately remove contaminated clothing. Areas of the body that have come into contact with the product must be rinsed with water. If symptoms occur, seek medical attention.

Following eye contact

Immediately flush eyes with running water, keeping eyelids apart. Consult a physician immediately!

Following ingestion

Never give anything to mouth if patient is unconscious or having convulsions. Consult a physician!

4.2 Most important symptoms and effects, both acute and delayed

Following inhalation

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

Following skin contact

Itching, redness, pain. May cause sensitisation by skin contact (itching, redness, rashes).

Following eye contact

Redness, tearing, pain.

Following ingestion

May cause nausea/vomiting and diarrhea. May cause abdominal discomfort. Irritates mucous membranes in the mouth, throat, esophagus and in gastrointestinal area.

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

Carbon dioxide. Dry chemical powder. Water spray. Alcohol resistant foam.

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. Gases formed in fire: carbon monoxide (CO), carbon dioxide (CO_2), nitrogen oxides (NO_X).

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.

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 and fire residues must be disposed of in accordance with the local regulations.

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).

Precautionary measures

Ensure adequate ventilation.

Emergency procedures

No action shall be taken involving any personal risk or without suitable training. Prevent access to unprotected personnel. Evacuate the danger zone. 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

See Section 7: HANDLING AND STORAGE.

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 allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

Other measures

No information.

Advice on general occupational hygiene

Do not breathe vapours/mist. Wear suitable protective equipment; see Section 8. Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke while working. Use good personal hygiene practices – wash hands at breaks and when done working with material. Avoid contact with skin, eyes and clothes.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Store in accordance with local regulations. Keep in cool and well ventilated area. Protect against UV-radiation/sunlight. Keep away from moisture. Keep away from food, drink and animal feeding stuffs. Store at least 3 m away from: Chemicals/products that react easily with each other. Keep in tightly closed container.

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
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
Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(pisocyanatobenzyl) phenyl isocyanate	Worker	inhalation	long term local effects	/	0.05 mg/m³
Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(pisocyanatobenzyl) phenyl isocyanate	Worker	inhalation	short term local effects	/	0.1 mg/m³
Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(pisocyanatobenzyl) phenyl isocyanate	Consumer	inhalation	long term local effects	/	0.025 mg/m³
Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(pisocyanatobenzyl) phenyl isocyanate	Consumer	inhalation	short term local effects	/	0.05 mg/m³
'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
4,4'-Methylenediphenyl diisocyanate, oligomers	Worker	inhalation	long term local effects	/	0.05 mg/m³
4,4'-Methylenediphenyl diisocyanate, oligomers	Worker	inhalation	short term local effects	/	0.1 mg/m³
4,4'-Methylenediphenyl diisocyanate, oligomers	Consumer	inhalation	long term local effects	/	0.025 mg/m³
4,4'-Methylenediphenyl diisocyanate, oligomers	Consumer	inhalation	short term local effects	/	0.05 mg/m³

PNEC values

For product

No information.

For components

Name	Exposure route	Remark	Value
Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(pisocyanatobenzyl) phenyl isocyanate	fresh water	/	3.7 µg/L
Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(pisocyanatobenzyl) phenyl isocyanate	water, intermittent release	/	37 µg/L
Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(pisocyanatobenzyl) phenyl isocyanate	marine water	/	0.37 µg/L
Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(pisocyanatobenzyl) phenyl isocyanate	fresh water sediment	dry weight	11.7 mg/kg
Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(pisocyanatobenzyl) phenyl isocyanate	marine water sediment	dry weight	1.17 mg/kg
Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(pisocyanatobenzyl) phenyl isocyanate	soil	dry weight	2.33 mg/kg
'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
4,4'-Methylenediphenyl diisocyanate, oligomers	fresh water	/	3.7 µg/L
4,4'-Methylenediphenyl diisocyanate, oligomers	water, intermittent release	/	37 µg/L
4,4'-Methylenediphenyl diisocyanate, oligomers	marine water	/	0.37 µg/L

Name	Exposure route	Remark	Value
4,4'-Methylenediphenyl diisocyanate, oligomers	fresh water sediment	dry weight	11.7 mg/kg
4,4'-Methylenediphenyl diisocyanate, oligomers	marine water sediment	dry weight	1.17 mg/kg
4,4'-Methylenediphenyl diisocyanate, oligomers	soil	dry weight	2.33 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/mist. Use personal protective equipment in accordance with the Regulation (EU) 2016/425.

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. If ventilation is not adequate, use appropriate respiratory protection. Keep away from food, drink and animal feeding stuffs.

Personal protective equipment

Eye and face protection

Tight-fitting protective goggles (BS EN ISO 16321-1:2022/A1:2025).

Hand protection

«CE» marking, category III. Protective gloves (BS EN ISO 374). Select the glove material by taking into account breakthrough time, degree of permeability and degradation. The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves wear time depends on the duration and type of use.

Appropriate materials

No information.

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). At high risk of skin exposure chemical suits (BS EN 13034:2005+A1:2009) and boots may be required (BS EN ISO 20345:2022+A1:2024).

Respiratory protection

In case of insufficient ventilation wear suitable respiratory protection. Wear a suitable protective breathing mask (BS EN 136) with filter A (BS EN 14387). Use a mask with a filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in case of an emergency, wear open-circuit compressed air breathing apparatus (BS EN 137) or external air-intake breathing apparatus (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	orange
Odour	characteristic
Odour threshold	No information.
Melting/freezing point or softening point	No information.
Boiling point or initial boiling point and boiling range	291 °C
Flammability	No information.
Lower and upper explosion limit	No information.
Flash point	No information.
Auto-ignition temperature	392 °C
Decomposition temperature	No information.
pH	No information.
Viscosity (dynamic)	195 — 235 cP
Solubility	No information.
Partition coefficient n-octanol/water (log value)	No information.
Vapour pressure	0.0004195 hPa at 20 °C
Density	1.1 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

No information.

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

Avoid contact with incompatible materials.

10.5 Incompatible materials

Water.
Alcohols.
Amines.
Bases.
Acids.

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
Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(pisocyanatobenzyl) phenyl isocyanate	oral	LD_{50}	rat	/	> 2000 mg/kg	/	/
Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(pisocyanatobenzyl) phenyl isocyanate	dermal	LD_{50}	rabbit	/	> 9400 mg/kg	/	/

Name	Exposure route	Type	Species	Time	Value	Method	Remark
Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(pisocyanatobenzyl) phenyl isocyanate	inhalation	LC_{50}	rat	/	0.49 mg/L	/	/
Reaction mass of 4,4'-methylenediphenyl diisocyanate and 2,2'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate	oral	LD_{50}	rat	/	> 10000 mg/kg	/	/
Reaction mass of 4,4'-methylenediphenyl diisocyanate and 2,2'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate	dermal	/	rabbit	/	> 9400 mg/kg	/	/
'4,4'-methylenediphenyl diisocyanate	oral	LD_{50}	rat	/	2200 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/m³	/	/
4,4'-Methylenediphenyl diisocyanate, oligomers	oral	LD_{50}	rat	/	> 5000 mg/kg	/	/
4,4'-Methylenediphenyl diisocyanate, oligomers	dermal	LD_{50}	rat	/	> 9400 mg/kg	/	/

Name	Exposure route	Type	Species	Time	Value	Method	Remark
4,4'-Methylenediphenyl diisocyanate, oligomers	inhalation	LC_{50}	rat	/	0.49 mg/kg	/	/

Additional information

Harmful if inhaled.

(b) Skin corrosion/irritation

No information.

Additional information

Causes skin irritation.

(c) Serious eye damage/irritation

No information.

Additional information

Causes serious eye irritation.

(d) Respiratory or skin sensitisation

No information.

Additional information

May cause an allergic skin reaction.

(e) (Germ cell) mutagenicity

No information.

(f) Carcinogenicity

No information.

(g) Reproductive toxicity

No information.

Summary of evaluation of the CMR properties

Suspected of causing cancer.

(h) STOT-single exposure

No information.

Additional information

May cause respiratory irritation.

(i) STOT-repeated exposure

No information.

Additional information

May cause damage to organs through prolonged or repeated exposure.

(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
Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(pisocyanatobenzyl) phenyl isocyanate	EC_{50}	1640 mg/L	72 h	algae	/	/	/
Reaction mass of 4,4'-methylenediphenyl diisocyanate and 2,2'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate	LC_{50}	> 1000 mg/L	96 h	/	fish	/	/
Reaction mass of 4,4'-methylenediphenyl diisocyanate and 2,2'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate	EC_{50}	> 1640 mg/L	72 h	algae	/	/	/

Name	Type	Value	Exposure time	Species	Organism	Method	Remark
4,4'-Methylenediphenyl diisocyanate, oligomers	LC_{50}	1000 mg/L	/	fish	/	/	/
4,4'-Methylenediphenyl diisocyanate, oligomers	EC_{50}	1640 mg/L	72 h	algae	/	/	/

Chronic (long-term) toxicity

For components

Name	Type	Value	Exposure time	Species	Organism	Method	Remark
Reaction mass of 4,4'-methylenediphenyl diisocyanate and 2,2'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate	NOEC	> 10 mg/L	/	crustacea	/	/	/

Additional information

Product is not classified as hazardous for environment.

12.2 Persistence and degradability

Abiotic degradation, physical- and photo-chemical elimination

No information.

Biodegradation

For components

Name	Type	Rate	Time	Evaluation	Method	Remark
Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(pisocyanatobenzyl) phenyl isocyanate	biodegradation	0 %	/	Not readily biodegradable.	/	/

Name	Type	Rate	Time	Evaluation	Method	Remark
Reaction mass of 4,4'-methylenediphenyl diisocyanate and 2,2'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate	biodegradability	90 %	24 days	/	OECD 301B/ ISO 9439/ EEC 92/69/V, C.4-C	/
4,4'-Methylenediphenyl diisocyanate, oligomers	biodegradability	0 %	/	biodegradable	/	/

12.3 Bioaccumulative potential

Partition coefficient n-octanol/water (log value)

No information.

Bioconcentration factor (BCF)

No information.

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

Do not allow undiluted product or large quantities of it to reach ground water, water bodies 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. 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. Reuse, if possible.

Waste codes / waste designations according to LoW

No information.

Packaging

Dispose of in accordance with applicable waste disposal regulation. Cleaned uncontaminated packaging may be taken for recycling. 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.

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

- EH40/2005 Workplace exposure limits (Fourth Edition 2020)

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: 3. 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: 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

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.
H351 Suspected of causing cancer.
H373 May cause damage to organs through prolonged or repeated exposure.

☑ 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.