

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

### 1.1 Product identifier

**Product name**

DRYINJECT 2000 COMP. A

<https://my.chemius.net/p/BiWjMT/en/pd/en>

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

**Relevant identified uses**

Hydro-expansive, solvent-free, semi-flexible 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  
Reaction mass of 4,4'- methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl) phenyl isocyanate  
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  $\geq 0.1$  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  $\geq 0.1$  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 2,2'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate	9016-87-9 905-804-3 -	74-<78	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)	/
Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate	9016-87-9 905-806-4 - 01-2119457015-45	4,5-<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)	/
propylene carbonate	108-32-7 203-572-1 607-194-00-1 01-2119537232-48	2-<2,5	Eye Irrit. 2; H319	/	/
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)	/

## 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<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>).

**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**

No information.

**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-(p-isocyanatobenzyl) phenyl isocyanate	Worker	inhalation	long term local effects	/	0.05 mg/m <sup>3</sup>
Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl) phenyl isocyanate	Worker	inhalation	short term local effects	/	0.1 mg/m <sup>3</sup>
Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl) phenyl isocyanate	Consumer	inhalation	long term local effects	/	0.025 mg/m <sup>3</sup>

Name	Type	Exposure route	exp. frequency	Remark	Value
Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(piscyanatobenzyl) phenyl isocyanate	Consumer	inhalation	short term local effects	/	0.05 mg/m <sup>3</sup>
propylene carbonate	Worker	inhalation	long term systemic effects	/	70.53 mg/m <sup>3</sup>
propylene carbonate	Worker	inhalation	long term local effects	/	20 mg/m <sup>3</sup>
propylene carbonate	Worker	dermal	long term systemic effects	/	20 mg/kg bw/day
propylene carbonate	Worker	dermal	long term local effects	/	10 mg/cm <sup>2</sup>
propylene carbonate	Consumer	inhalation	long term systemic effects	/	17.4 mg/m <sup>3</sup>
propylene carbonate	Consumer	inhalation	long term local effects	/	10 mg/m <sup>3</sup>
propylene carbonate	Consumer	dermal	long term systemic effects	/	10 mg/kg bw/day
propylene carbonate	Consumer	oral	long term systemic effects	/	10 mg/kg bw/day
4,4'-Methylenediphenyl diisocyanate, oligomers	Worker	inhalation	long term local effects	/	0.05 mg/m <sup>3</sup>
4,4'-Methylenediphenyl diisocyanate, oligomers	Worker	inhalation	short term local effects	/	0.1 mg/m <sup>3</sup>
4,4'-Methylenediphenyl diisocyanate, oligomers	Consumer	inhalation	long term local effects	/	0.025 mg/m <sup>3</sup>
4,4'-Methylenediphenyl diisocyanate, oligomers	Consumer	inhalation	short term local effects	/	0.05 mg/m <sup>3</sup>

**PNEC values****For product**

No information.

**For components**

Name	Exposure route	Remark	Value
Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(piscyanatobenzyl) phenyl isocyanate	fresh water	/	3.7 µg/L

Name	Exposure route	Remark	Value
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
propylene carbonate	fresh water	/	0.9 mg/L
propylene carbonate	water, intermittent release	/	9 mg/L
propylene carbonate	marine water	/	0.09 mg/L
propylene carbonate	water, marine, intermittent release	/	0.9 mg/L
propylene carbonate	water treatment plant	/	7400 mg/L
propylene carbonate	soil	dry weight	0.81 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
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	221 °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)	80 — 120 cP
Solubility	No information.
Partition coefficient n-octanol/water (log value)	No information.
Vapour pressure	0.02 hPa
Density	1.187 g/cm <sup>3</sup>
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 2,2'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate	oral	LD <sub>50</sub>	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	/	/
Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate	oral	LD <sub>50</sub>	rat	/	> 2000 mg/kg	/	/

Name	Exposure route	Type	Species	Time	Value	Method	Remark
Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(piscyanatobenzyl) phenyl isocyanate	dermal	LD <sub>50</sub>	rabbit	/	> 9400 mg/kg	/	/
Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(piscyanatobenzyl) phenyl isocyanate	inhalation	LC <sub>50</sub>	rat	/	0.49 mg/L	/	/
4,4'-Methylenediphenyl diisocyanate, oligomers	oral	LD <sub>50</sub>	rat	/	> 5000 mg/kg	/	/
4,4'-Methylenediphenyl diisocyanate, oligomers	dermal	LD <sub>50</sub>	rat	/	> 9400 mg/kg	/	/
4,4'-Methylenediphenyl diisocyanate, oligomers	inhalation	LC <sub>50</sub>	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  $\geq 0.1$  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  $\geq 0.1$  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 2,2'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate	LC <sub>50</sub>	> 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 <sub>50</sub>	> 1640 mg/L	72 h	algae	/	/	/
Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate	EC <sub>50</sub>	1640 mg/L	72 h	algae	/	/	/
4,4'-Methylenediphenyl diisocyanate, oligomers	LC <sub>50</sub>	1000 mg/L	/	fish	/	/	/
4,4'-Methylenediphenyl diisocyanate, oligomers	EC <sub>50</sub>	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 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	/
Reaction mass of 4,4'-methylenediphenyl diisocyanate and o-(p-isocyanatobenzyl)phenyl isocyanate	biodegradation	0 %	/	Not readily biodegradable.	/	/
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  $\geq 0.1$  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  $\geq 0.1$  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: <b>Not given/not applicable</b>	Limited quantities: <b>Not given/not applicable</b>		Limited quantities: <b>Not given/not applicable</b>

### 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 national laws. The user's working conditions however, are beyond our knowledge and control. The product is not to be used for purposes other than those specified under section 1 without a written permission. It remains the responsibility of the user to ensure that the necessary steps are taken to meet the laws and regulations. Handling of the product may only be done by people above 18 years 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.*