

# PU 302 FC40

## SAFETY DATA SHEET

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

#### 1.1. Product identifier

Product form : Mixture  
Product name : PU 302 FC40  
Type of product : Adhesives, sealants

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

##### 1.2.1. Relevant identified uses

Intended for general public

##### 1.2.2. Uses advised against

No additional information available

#### 1.3. Details of the supplier of the safety data sheet

ADROIT ENDÜSTRİYEL YAPIŞTIRICI VE KİMYA SAN. TİC. A.Ş.  
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D Blok No :21 Kat 9 64 Numaralı Ofis Sarıyer /İstanbul  
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#### 1.4. Emergency telephone number

Emergency number : +90 212 269 36 65 (9:00 am- 17:00 pm GMT+2)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Respiratory sensitisation, Category 1 H334

Full text of H statements : see section 16

##### Adverse physicochemical, human health and environmental effects

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

#### 2.2. Label elements

##### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS08

Signal word (CLP) :

Danger

Hazardous ingredients :

4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate

Hazard statements (CLP) :

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

Precautionary statements (CLP) :

P102 - Keep out of reach of children.  
P261 - Avoid breathing fume, dust, gas, mist, spray, vapours.  
P284 - In case of inadequate ventilation wear respiratory protection.  
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P342+P311 - If experiencing respiratory symptoms: Call a doctor, a POISON CENTER.  
P501 - Dispose of contents and container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Extra phrases :

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.

Child-resistant fastening : Not applicable  
Tactile warning : Applicable

### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
xylene	(CAS-No.) 1330-20-7 (EC-No.) 215-535-7 (EC Index-No.) 601-022-00-9 (REACH-no) 01-2119488216-32	1 - 5	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation), H332 Acute Tox. 4 (Dermal), H312 Skin Irrit. 2, H315
4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate	(CAS-No.) 101-68-8 (EC-No.) 202-966-0 (EC Index-No.) 615-005-00-9 (REACH-no) 01-211945701447-0000	< 1	Carc. 2, H351 Acute Tox. 4 (Inhalation), H332 STOT RE 2, H373 Eye Irrit. 2, H319 STOT SE 3, H335 Skin Irrit. 2, H315 Resp. Sens. 1, H334 Skin Sens. 1, H317
Silane, trimethoxy[3-(oxiranylmethoxy)propyl]-	(CAS-No.) 2530-83-8 (EC-No.) 219-784-2 (REACH-no) 01-211937949916	< 1	Eye Dam. 1, H318

#### Specific concentration limits:

Name	Product identifier	Specific concentration limits
4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate	(CAS-No.) 101-68-8 (EC-No.) 202-966-0 (EC Index-No.) 615-005-00-9 (REACH-no) 01-211945701447-0000	( 0.1 =<C <= 100) Resp. Sens. 1, H334 ( 5 =<C <= 100) Eye Irrit. 2, H319 ( 5 =<C <= 100) Skin Irrit. 2, H315 ( 5 =<C <= 100) STOT SE 3, H335

Full text of H-statements: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general : Call a poison center or a doctor if you feel unwell.  
First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms: Call a poison center or a doctor.  
First-aid measures after skin contact : Wash skin with plenty of water.  
First-aid measures after eye contact : Rinse eyes with water as a precaution.  
First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell.

### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation : May cause allergy or asthma symptoms or breathing difficulties if inhaled.

### 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. Dry powder. Foam.

### 5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released.

### 5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Avoid breathing dust/fume/gas/mist/vapours/spray.

#### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Mechanically recover the product.

Other information : Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Avoid breathing dust/fume/gas/mist/vapours/spray.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

EU - Occupational Exposure Limits

<b>Local name</b>	Xylene, mixed isomers, pure
<b>IOELV TWA (mg/m<sup>3</sup>)</b>	221 mg/m <sup>3</sup>
<b>IOELV TWA (ppm)</b>	50 ppm
<b>IOELV STEL (mg/m<sup>3</sup>)</b>	442 mg/m <sup>3</sup>
<b>IOELV STEL (ppm)</b>	100 ppm
<b>Notes</b>	Skin
<b>Regulatory reference</b>	COMMISSION DIRECTIVE 2000/39/EC

Austria - Occupational Exposure Limits

<b>Local name</b>	Diphenylmethan-4,4'-diisocyanat
<b>MAK (mg/m<sup>3</sup>)</b>	0.05 mg/m <sup>3</sup>
<b>MAK (ppm)</b>	0.005 ppm
<b>MAK Short time value (mg/m<sup>3</sup>)</b>	0.1 mg/m <sup>3</sup>
<b>MAK Short time value (ppm)</b>	0.01 ppm
<b>Remark (AT)</b>	Sah



Regulatory reference	BGBI. II Nr. 186/2015
Belgium - Occupational Exposure Limits	
<b>Local name</b>	4,4'-Diisocyanate de diphénylméthane (MDI) # Difenylmethaan-4,4'-di-isocyaan (MDI)
<b>Limit value (mg/m³)</b>	0.052 mg/m³
<b>Limit value (ppm)</b>	0.005 ppm
<b>Short time value (mg/m³)</b>	442 mg/m³
<b>Short time value (ppm)</b>	100 ppm
<b>Regulatory reference</b>	Koninklijk besluit/Arrêté royal 02/09/2018
Bulgaria - Occupational Exposure Limits	
<b>Local name</b>	Ксилен (смес от изомери), чист
<b>OEL TWA (mg/m³)</b>	221 mg/m³
<b>OEL TWA (ppm)</b>	50 ppm
<b>OEL STEL (mg/m³)</b>	442 mg/m³
<b>OEL STEL (ppm)</b>	100 ppm
<b>Notes</b>	Кожа (възможна е значителна резорбция чрез кожата); * (Химични агенти, за които са определени гранични стойности във въздуха на работната среда за Европейската общност)
<b>Regulatory reference</b>	Наредба № 13 от 30.12.2003 г. за защита на работещите от рискове, свързани с експозиция на химични агенти при работа (изм. и доп. ДВ. бр.73 от 4 септември 2018 г.)
Croatia - Occupational Exposure Limits	
<b>Local name</b>	Ksilen (svi izomeri)
<b>GVI (granična vrijednost izloženosti) (mg/m³)</b>	221 mg/m³
<b>GVI (granična vrijednost izloženosti) (ppm)</b>	50 ppm
<b>KGVI (kratkotrajna granična vrijednost izloženosti) (mg/m³)</b>	442 mg/m³
<b>KGVI (kratkotrajna granična vrijednost izloženosti) (ppm)</b>	100 ppm
<b>Naznake (HR)</b>	Direktiva: 2000/39/EZ. Napomena: Koža (razvrstana kao tvar koja nadražuje kožu (H315))
<b>Regulatory reference</b>	Pravilnik o izmjenama i dopunama Pravilnika o graničnim vrijednostima izloženosti opasnim tvarima pri radu i o biološkim graničnim vrijednostima (NN 91/2018)
Croatia - Biological limit values	
<b>Local name</b>	Ksilen
Czech Republic - Occupational Exposure Limits	
<b>Local name</b>	Difenylmethan-4,4'-diisokyanát (1,1'-Methylenbis(4-isokyanatobenzen))
<b>Expoziční limity (PEL) (mg/m³)</b>	0.05 mg/m³
<b>Expoziční limity (PEL) (ppm)</b>	0.005 ppm
<b>Expoziční limity (NPK-P) (mg/m³)</b>	0.1 mg/m³
<b>Expoziční limity (NPK-P) (ppm)</b>	0.01 ppm
<b>Remark (CZ)</b>	I (dráždí sliznice (oči, dýchací cesty) resp. kůži), S (látka má senzibilizační účinek)
<b>Regulatory reference</b>	Nařízení vlády č. 361/2007 Sb. (zpracovány změny č. 246/2018 Sb.)
Denmark - Occupational Exposure Limits	
<b>Local name</b>	Diphenylmethan-4,4'-diisocyanat (MDI; Methylenbis(phenylisocyanat))
<b>Grænseværdie (langvarig) (mg/m³)</b>	0.05 mg/m³
<b>Grænseværdie (langvarig) (ppm)</b>	0.005 ppm
<b>Anmærkninger (DK)</b>	E (betyder, at stoffet har en EF-grænseværdi); H (betyder, at stoffet kan optages gennem huden)
<b>Regulatory reference</b>	BEK nr 655 af 31/05/2018
Estonia - Occupational Exposure Limits	
<b>Local name</b>	4,4'-metüleendifenüül-diisotsüanaat (fenüülisotsüanaat)
<b>OEL TWA (mg/m³)</b>	0.05 mg/m³
<b>OEL TWA (ppm)</b>	0.005 ppm
<b>OEL STEL (mg/m³)</b>	450 mg/m³
<b>OEL STEL (ppm)</b>	100 ppm
<b>OEL Ceiling (mg/m³)</b>	0.1 mg/m³
<b>OEL Ceiling (ppm)</b>	0.01 ppm
<b>Remark (ET)</b>	S (Sensibiliseerivad ained), 2 (Arvutatud 5-minutisele kokkupuuteajale)
<b>Regulatory reference</b>	Vabariigi Valitsuse 18. septembri 2001. a määruse nr 293 (RT I, 30.11.2011, 5)
Finland - Occupational Exposure Limits	
<b>Local name</b>	Ksyleeni
<b>HTP-arvo (8h) (mg/m³)</b>	220 mg/m³
<b>HTP-arvo (8h) (ppm)</b>	50 ppm



<b>HTP-arvo (15 min)</b>	440 mg/m <sup>3</sup>
<b>HTP-arvo (15 min) (ppm)</b>	100 ppm
<b>Huomautus (FI)</b>	iho
<b>Regulatory reference</b>	HTP-ARVOT 2018 (Sosiaali- ja terveysministeriö)
Finland - Biological limit values	
<b>Local name</b>	Ksyleeni
<b>Finland - BLV</b>	5 mmol/l Parametri: Virtsan metyylhippuurihappo - Näytteenottoajankohta: Työvuoron päätyttyä
<b>Regulatory reference</b>	HTP-ARVOT 2018 (Sosiaali- ja terveysministeriö)
France - Occupational Exposure Limits	
<b>Local name</b>	4,4'-Diisocyanate de diphenylméthane
<b>VME (mg/m<sup>3</sup>)</b>	0.1 mg/m <sup>3</sup>
<b>VME (ppm)</b>	0.01 ppm
<b>VLE (mg/m<sup>3</sup>)</b>	0.2 mg/m <sup>3</sup>
<b>VLE (ppm)</b>	0.02 ppm
<b>Note (FR)</b>	Valeurs recommandées/admises; certaines ou toutes ces VLE s'entendent pour des concentrations mesurées sur une durée de 5 min; risque d'allergie respiratoire, substance classée cancérogène de catégorie 2
<b>Regulatory reference</b>	Circulaire du Ministère du travail (réf.: INRS ED 984, 2016)
Germany - Occupational Exposure Limits (TRGS 900)	
<b>TRGS 900 Local name</b>	4,4'-Methyldiphenyldiisocyanat
<b>Occupational exposure limit value (mg/m<sup>3</sup>)</b>	0.05 mg/m <sup>3</sup> (E)
<b>Occupational exposure limit value (ppm)</b>	100 ppm
<b>Limitation of exposure peaks</b>	1;=2=(I)
<b>TRGS 900 Remark</b>	DFG;11;12;H;Sah;Y
<b>TRGS 900 Regulatory reference</b>	TRGS900
Germany - Biological limit values (TRGS 903)	
<b>TRGS 903 Local name</b>	Xylol (alle Isomere)
<b>TRGS 903 Biological limit value</b>	2000 mg/l Parameter: Methylhippur-(Tolur-) säure (alle Isomere) - Untersuchungsmaterial: U = Urin - Probenahmezeitpunkt: b) Expositionsende, bzw. Schichtende - Festlegung/Begründung: 11/2016 DFG
<b>TRGS 903 Regulatory reference</b>	TRGS 903
Gibraltar - Occupational Exposure Limits	
<b>Name of agent</b>	Xylene, mixed isomers, pure
<b>Eight hours mg/m<sup>3</sup></b>	221 mg/m <sup>3</sup>
<b>Eight hours ppm</b>	50 ppm
<b>Short-term mg/m<sup>3</sup></b>	442 mg/m <sup>3</sup>
<b>Short-term ppm</b>	100 ppm
<b>Notation</b>	Skin
<b>Regulatory reference</b>	Factories (Control of Chemical Agents at Work) Regulations 2003 (LN. 2018/181)
Greece - Occupational Exposure Limits	
<b>Local name</b>	Δισοκυανικός εστέρας του διφαιλυομεθάνιου (MDI)
<b>OEL TWA (mg/m<sup>3</sup>)</b>	0.2 mg/m <sup>3</sup>
<b>OEL TWA (ppm)</b>	0.02 ppm
<b>OEL STEL (mg/m<sup>3</sup>)</b>	0.2 mg/m <sup>3</sup>
<b>OEL STEL (ppm)</b>	0.02 ppm
<b>Regulatory reference</b>	Π.Δ. 90/1999
Hungary - Occupational Exposure Limits	
<b>Local name</b>	difenilmetán-4,4'-diizocianát (MDI)
<b>AK-érték</b>	0.05 mg/m <sup>3</sup>
<b>CK-érték</b>	0.05 mg/m <sup>3</sup>
Hungary - Biological limit values	
<b>Local name</b>	Xilol
<b>Regulatory reference</b>	25/2000. (IX. 30.) EüM–SZCSM együttes rendelet a munkahelyek kémiai biztonságáról
Ireland - Occupational Exposure Limits	
<b>Local name</b>	4,4'-Methylene-diphenyl diisocyanate (as —NCO)
<b>OEL (8 hours ref) (mg/m<sup>3</sup>)</b>	221 mg/m <sup>3</sup>
<b>OEL (8 hours ref) (ppm)</b>	0.005 ppm
<b>OEL (15 min ref) (mg/m<sup>3</sup>)</b>	442 mg/m <sup>3</sup>
<b>OEL (15 min ref) (ppm)</b>	100 ppm
Italy - Occupational Exposure Limits	
<b>Local name</b>	Xilene, isomeri misti, puro
<b>OEL TWA (mg/m<sup>3</sup>)</b>	221 mg/m <sup>3</sup>



<b>OEL TWA (ppm)</b>	<b>50 ppm</b>
<b>OEL STEL (mg/m<sup>3</sup>)</b>	442 mg/m <sup>3</sup>
<b>OEL STEL (ppm)</b>	100 ppm
<b>Notes</b>	pelle
<b>Regulatory reference</b>	Allegato XXXVIII del D.Lgs. 9 aprile 2008, n. 81 e s.m.i.
Latvia - Occupational Exposure Limits	
<b>Local name</b>	Ksilols (o-,m-,p-ksilols, dimetilbenzols)
<b>OEL TWA (mg/m<sup>3</sup>)</b>	221 mg/m <sup>3</sup>
<b>OEL TWA (ppm)</b>	50 ppm
<b>OEL STEL (mg/m<sup>3</sup>)</b>	442 mg/m <sup>3</sup>
<b>OEL STEL (ppm)</b>	100 ppm
<b>Regulatory reference</b>	Ministru kabineta 2007.gada 15.maija noteikumiem Nr.325
Lithuania - Occupational Exposure Limits	
<b>Local name</b>	Metileno bisfenilizocianatas (MDI)
<b>IPRV (mg/m<sup>3</sup>)</b>	0.05 mg/m <sup>3</sup>
<b>IPRV (ppm)</b>	0.005 ppm
<b>TPRV (mg/m<sup>3</sup>)</b>	442 mg/m <sup>3</sup>
<b>TPRV (ppm)</b>	100 ppm
<b>NRV (mg/m<sup>3</sup>)</b>	0.1 mg/m <sup>3</sup>
<b>NRV (ppm)</b>	0.01 ppm
<b>Remark (LT)</b>	J (jautrinantis poveikis); Nustatytas 5 min. poveikio trukmės NRD. Tas pats RD, išreikštas ppm, taikomas izocianatams, kurių RD nenustatytas. Ši nuostata taikoma ir dulkių ar lašelių (aerozolių) pavidalo izocianatams, įskaitant prepolymerizuotus izocianatus (aduktus). Skirtingų medžiagų RD, išreikšti mg/m <sup>3</sup> , yra skirtingi.
<b>Regulatory reference</b>	LIETUVOS HIGIENOS NORMA HN 23:2011 (Nr. V-695/A1-272, 2018-06-12)
Luxembourg - Occupational Exposure Limits	
<b>Local name</b>	Xylène, isomères mixtes, purs
<b>OEL TWA (mg/m<sup>3</sup>)</b>	221 mg/m <sup>3</sup>
<b>OEL TWA (ppm)</b>	50 ppm
<b>OEL STEL (mg/m<sup>3</sup>)</b>	442 mg/m <sup>3</sup>
<b>OEL STEL (ppm)</b>	100 ppm
<b>Regulatory reference</b>	Mémorial A N° 684 de 2018
Malta - Occupational Exposure Limits	
<b>Local name</b>	Xylene, mixed isomers, pure # Xylene, Isomeri mhallta, puri
<b>OEL TWA (mg/m<sup>3</sup>)</b>	221 mg/m <sup>3</sup>
<b>OEL TWA (ppm)</b>	50 ppm
<b>OEL STEL (mg/m<sup>3</sup>)</b>	442 mg/m <sup>3</sup>
<b>OEL STEL (ppm)</b>	100 ppm
<b>Regulatory reference</b>	S.L.424.24 (L.N.57 of 2018)
Netherlands - Occupational Exposure Limits	
<b>Local name</b>	Xyleen, o-, m-, p-isomeren
<b>Grenswaarde TGG 8H (mg/m<sup>3</sup>)</b>	210 mg/m <sup>3</sup>
<b>Grenswaarde TGG 15MIN (mg/m<sup>3</sup>)</b>	442 mg/m <sup>3</sup>
<b>Remark (MAC)</b>	H (Huidopname) Stoffen die relatief gemakkelijk door de huid kunnen worden opgenomen, hetgeen een substantiële bijdrage kan betekenen aan de totale inwendige blootstelling, hebben in de lijst een H-aanduiding. Bij deze stoffen moeten naast maatregelen tegen inademing ook adequate maatregelen ter voorkoming van huidcontact worden genomen.
<b>Regulatory reference</b>	Arbeidsomstandighedenregeling 2018
Poland - Occupational Exposure Limits	
<b>Local name</b>	Metylenobis(fenylizocyanian) (diizocyanian 4,4'-metylenodifenyly)
<b>NDS (mg/m<sup>3</sup>)</b>	0.03 mg/m <sup>3</sup>
<b>NDSch (mg/m<sup>3</sup>)</b>	0.09 mg/m <sup>3</sup>
<b>Remark (PL)</b>	Skóra (Oznakowanie substancji notacją „skóra” oznacza, że wchłanianie substancji przez skórę może być tak samo istotne jak przy narażeniu drogą oddechową)
<b>Regulatory reference</b>	Dz. U. 2018 poz. 1286
Portugal - Occupational Exposure Limits	
<b>Local name</b>	Metilendifenilisocianato (MDI)
<b>OEL TWA (ppm)</b>	0.005 ppm
<b>OEL STEL (ppm)</b>	150 ppm
<b>Regulatory reference</b>	Norma Portuguesa NP 1796:2014
Portugal - Biological limit values	
<b>Local name</b>	Xilenos (graus técnico e comercial)



Portugal (BEI)	1.5 g/g creatinine Parâmetro: Ácidos (o, m, p)-metilhipúricos - Meio: urina - Momento da amostragem: Fim do turno
<b>Regulatory reference</b>	Norma Portuguesa NP 1796:2014
Romania - Occupational Exposure Limits	
<b>Local name</b>	4,4'-Metilendifenil diizocianat
<b>OEL TWA (mg/m³)</b>	221 mg/m³
<b>OEL TWA (ppm)</b>	50 ppm
<b>OEL STEL (mg/m³)</b>	0.15 mg/m³
<b>OEL STEL (ppm)</b>	100 ppm
<b>Regulatory reference</b>	Hotărârea nr. 584/2018
Romania - Biological limit values	
<b>Local name</b>	Xilen
<b>Romania - BLV</b>	3 g/l Indicador biologic: Acid metilhipuric - Material biologic: urină - Momentul recoltării: sfârșit schimb
<b>Regulatory reference</b>	Hotărârea nr. 584/2018
Serbia - Occupational Exposure Limits	
<b>Local name</b>	ксилен, мешани изомери, чист
<b>OEL TWA (mg/m³)</b>	221 mg/m³
<b>OEL TWA (ppm)</b>	50 ppm
<b>OEL STEL (mg/m³)</b>	442 mg/m³
<b>OEL STEL (ppm)</b>	100 ppm
<b>Notes</b>	EU* – напомена да се ради о хемијским материјама за које су утврђене индикативне граничне вредности изложености према Директиви 2000/39/ЕЗ (прва листа); К – напомена да хемијска материја може штетно деловати на кожу
<b>Regulatory reference</b>	ПРАВИЛНИК о превентивним мерама за безбедан и здрав рад при излагању хемијским материјама („Службени гласник РС”, бр. 106/09 и 117/17)
Slovakia - Occupational Exposure Limits	
<b>Local name</b>	Izokyanáty: 4,4'-Metyléndifenyilizokyanát (MDI)
<b>NPHV (priemerná) (mg/m³)</b>	0.03 mg/m³
<b>NPHV (priemerná) (ppm)</b>	0.002 ppm
<b>OEL STEL (mg/m³)</b>	442 mg/m³
<b>OEL STEL (ppm)</b>	100 ppm
<b>Upozornenie (SK)</b>	S - znamená, že faktor môže spôsobiť senzibilizáciu
<b>Regulatory reference</b>	Nariadenie vlády č. 33/2018 Z.z.
Slovakia - Biological limit values	
<b>Local name</b>	Xylén (všetky izoméry)
<b>Slovakia - BLV</b>	1.5 mg/l Zisťovaný faktor: Xylén - Vyšetovaný materiál: krv - Čas odberu vzorky: b) koniec expozície alebo pracovnej zmeny 2000 mg/l Zisťovaný faktor: Suma kyselín 2,3,4-metyl-hippurových - Vyšetovaný materiál: moč - Čas odberu vzorky: b) koniec expozície alebo pracovnej zmeny
<b>Regulatory reference</b>	Nariadenie vlády č. 355/2006 Z. z. (Zmena: 471/2011 Z.z.)
Slovenia - Occupational Exposure Limits	
<b>Local name</b>	difenilmetan-4,4'-diizocianat (4,4'-metilendifenil diizocianat)
<b>OEL TWA (mg/m³)</b>	0.05 mg/m³
	0.005 mg/m³
<b>OEL TWA (ppm)</b>	50 ppm
<b>OEL STEL (mg/m³)</b>	0.05 mg/m³
<b>OEL STEL (ppm)</b>	0.005 ppm
<b>Remark (SI)</b>	K (Lastnost lažjega prehajanja snovi v organizem skozi kožo), Y (Snovi, pri katerih ni nevarnosti za zarodek ob upoštevanju mejnih vrednosti in BAT vrednosti)
<b>Regulatory reference</b>	Uradni list RS, št. 78/2018 z dne 4.12.2018
Slovenia - Biological limit values	
<b>Local name</b>	ksilen (vse izomere)
<b>Regulatory reference</b>	Uradni list RS, št. 78/2018 z dne 4.12.2018
Spain - Occupational Exposure Limits	
<b>Local name</b>	Diisocianato de 4,4'-difenilmetano (MDI)
<b>VLA-ED (mg/m³)</b>	0.052 mg/m³
<b>VLA-ED (ppm)</b>	0.005 ppm
<b>VLA-EC (mg/m³)</b>	442 mg/m³
<b>VLA-EC (ppm)</b>	100 ppm
Spain - Biological limit values	
<b>Local name</b>	Xilenos, mezcla isómeros
<b>Spain - BLV</b>	1 g/g creatinine Parámetro: Ácidos metilhipúricos - Medio: Orina - Momento de muestreo: Final de la jornada laboral



Regulatory reference	Límites de Exposición Profesional para Agentes Químicos en España 2019. INSHT
Sweden - Occupational Exposure Limits	
<b>Local name</b>	4,4'-Metylendifenyldiisocyanat (MDI)
<b>nivágránsvärde (NVG) (mg/m<sup>3</sup>)</b>	0.03 mg/m <sup>3</sup>
<b>nivágránsvärde (NVG) (ppm)</b>	0.002 ppm
<b>kortidsvärde (KTV) (mg/m<sup>3</sup>)</b>	0.05 mg/m <sup>3</sup>
<b>kortidsvärde (KTV) (ppm)</b>	0.005 ppm
United Kingdom - Occupational Exposure Limits	
<b>Local name</b>	Xylene
<b>WEL TWA (mg/m<sup>3</sup>)</b>	220 mg/m <sup>3</sup> o-,m-,p- or mixed isomers
<b>WEL TWA (ppm)</b>	50 ppm o-,m-,p- or mixed isomers
<b>WEL STEL (mg/m<sup>3</sup>)</b>	441 mg/m <sup>3</sup> o-,m-,p- or mixed isomers
<b>WEL STEL (ppm)</b>	100 ppm o-,m-,p- or mixed isomers
<b>Remark (WEL)</b>	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)
<b>Regulatory reference</b>	EH40/2005 (Third edition, 2018). HSE
United Kingdom - Biological limit values	
<b>Local name</b>	Xylene, o-, m-, p- or mixed isomers
<b>United Kingdom (BEI)</b>	650 mmol/mol Creatinine Parameter: methyl hippuric acid - Medium: urine - Sampling time: Post shift
<b>Regulatory reference</b>	EH40/2005 (Third edition, 2018). HSE
Iceland - Occupational Exposure Limits	
<b>Local name</b>	Metýlenbis(fenýlísósýanat) (dífenýlmetan-4,4'-díísósýanat, MDI)
<b>OEL (8 hours ref) (mg/m<sup>3</sup>)</b>	0.05 mg/m <sup>3</sup>
<b>OEL (8 hours ref) (ppm)</b>	0.005 ppm
<b>OEL (15 min ref) (mg/m<sup>3</sup>)</b>	0.1 mg/m <sup>3</sup> Þakgildið er miðað við fimm mínútna tímabil
<b>OEL (15 min ref) (ppm)</b>	0.01 ppm Þakgildið er miðað við fimm mínútna tímabil
<b>Notes (IS)</b>	O (efnið er ofnæmisvaldandi)
<b>Regulatory reference</b>	Reglugerð um mengunarmörk og aðgerðir til að draga úr mengun á vinnustöðum (Nr. 390/2009)
Norway - Occupational Exposure Limits	
<b>Local name</b>	Dífenýlmetan-4,4'-diisocyanat (MDI; Metylen-bis-fenyldiisocyanat)
<b>Grenseverdier (AN) (mg/m<sup>3</sup>)</b>	0.05 mg/m <sup>3</sup>
<b>Grenseverdier (AN) (ppm)</b>	0.005 ppm
<b>Grenseverdier (Kortidsverdi) (ppm)</b>	0.01 ppm
<b>Merknader (NO)</b>	A (Kjemikalier som skal betraktes som at de fremkaller allergi eller annen overfølsomhet i øynene eller luftveier, eller som skal betraktes som at de fremkaller allergi ved hudkontakt)
<b>Regulatory reference</b>	FOR-2018-08-21-1255
Switzerland - Occupational Exposure Limits	
<b>Local name</b>	Xylène (tous les isomères) / Xylol (alle Isomere)
<b>MAK (mg/m<sup>3</sup>)</b>	435 mg/m <sup>3</sup>
<b>MAK (ppm)</b>	100 ppm
<b>KZGW (mg/m<sup>3</sup>)</b>	870 mg/m <sup>3</sup>
<b>KZGW (ppm)</b>	200 ppm
<b>Critical toxicity</b>	VRS, SNC, Yeux, Vertige / OAW, ZNS, Auge, Schwindel
<b>Notation</b>	R, B / H, B
<b>Remark</b>	INRS, NIOSH
<b>Regulatory reference</b>	www.suva.ch, 01.07.2019
Turkey - Occupational Exposure Limits	
<b>Local name</b>	Ksilen
<b>OEL TWA (mg/m<sup>3</sup>)</b>	221 mg/m <sup>3</sup> (karişım izomerleri, saf)
<b>OEL TWA (ppm)</b>	50 ppm (karişım izomerleri, saf)
<b>OEL STEL (mg/m<sup>3</sup>)</b>	442 mg/m <sup>3</sup> (karişım izomerleri, saf)
<b>OEL STEL (ppm)</b>	100 ppm (karişım izomerleri, saf)
<b>Comments</b>	Deri
<b>Regulatory reference</b>	12 Ağustos 2013 Tarihli ve 28733 Sayılı Resmî Gazete
USA - ACGIH - Occupational Exposure Limits	
<b>Local name</b>	Methylene bisphenyl isocyanate (MDI)
<b>ACGIH TWA (ppm)</b>	0.005 ppm
<b>ACGIH STEL (ppm)</b>	150 ppm
<b>Remark (ACGIH)</b>	TLV® Basis: Resp sens
<b>Regulatory reference</b>	ACGIH 2019



## 8.2. Exposure controls

### Appropriate engineering controls:

Ensure good ventilation of the work station.

### Hand protection:

Protective gloves

### Eye protection:

Safety glasses

### Skin and body protection:

Wear suitable protective clothing

### Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection. EN 14387

### Personal protective equipment symbol(s):



### Environmental exposure controls:

Avoid release to the environment.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Paste.
Colour	: Various.
Odour	: Characteristic.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 1,18± 0,03 g/ml
Solubility	: No data available
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available



Oxidising properties : No data available  
Explosive limits : Not applicable

## 9.2. Other information

No data available.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified  
Acute toxicity (dermal) : Not classified  
Acute toxicity (inhalation) : Not classified

#### Silane, trimethoxy[3-(oxiranylmethoxy)propyl]- (2530-83-8)

LC50 inhalation rat (mg/l)	> 5.3 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)
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Skin corrosion/irritation : Not classified  
Serious eye damage/irritation : Not classified  
Respiratory or skin sensitisation : May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
Germ cell mutagenicity : Not classified  
Carcinogenicity : Not classified  
Reproductive toxicity : Not classified  
STOT-single exposure : Not classified  
STOT-repeated exposure : Not classified  
Aspiration hazard : Not classified

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.  
Hazardous to the aquatic environment, short-term (acute) : Not classified  
Hazardous to the aquatic environment, long-term (chronic) : Not classified

#### Silane, trimethoxy[3-(oxiranylmethoxy)propyl]- (2530-83-8)

LC50 fish 1	55 mg/l Test organisms (species): Cyprinus carpio
LOEC (chronic)	> 100 mg/l Test organisms (species): Daphnia magna Duration: '21 d'



NOEC (chronic)	>= 100 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
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## 12.2. Persistence and degradability

No additional information available

## 12.3. Bioaccumulative potential

No additional information available

## 12.4. Mobility in soil

No additional information available

## 12.5. Results of PBT and vPvB assessment

No additional information available

## 12.6. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

## SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.2. UN proper shipping name</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.3. Transport hazard class(es)</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.4. Packing group</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
<b>14.5. Environmental hazards</b>				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available				

### 14.6. Special precautions for user

#### Overland transport

Not applicable

#### Transport by sea

Not applicable

#### Air transport

Not applicable

#### Inland waterway transport

Not applicable

#### Rail transport

Not applicable

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable



## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:

Reference code	Applicable on	Entry title or description
56.	4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate	Methylenediphenyl diisocyanate (MDI)
56(a)	4,4'-methylenediphenyl diisocyanate; diphenylmethane-4,4'-diisocyanate	Methylenediphenyl diisocyanate (MDI) isomers: 4,4'-Methylenediphenyl diisocyanate

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to REGULATION (EU) No 649/2012 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

#### 15.1.2. National regulations

##### Germany

Reference to AwSV : Water hazard class (WGK) 2, Significantly hazardous to water (Classification according to AwSV, Annex 1)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

##### Netherlands

ABM category : B(4) - low hazard for aquatic organisms

SZW-lijst van kankerverwekkende stoffen : None of the components are listed

SZW-lijst van mutagene stoffen : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : xylene is listed

##### Denmark

Danish National Regulations : Young people below the age of 18 years are not allowed to use the product  
Pregnant/breastfeeding women working with the product must not be in direct contact with the product  
The requirements from the Danish Working Environment Authorities regarding work with carcinogens must be followed during use and disposal

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

Full text of H- and EUH-statements:	
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Carc. 2	Carcinogenicity, Category 2
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2



Flam. Liq. 3	Flammable liquids, Category 3
Resp. Sens. 1	Respiratory sensitisation, Category 1
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H226	Flammable liquid and vapour.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
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.

#### ADROIT SDS EU

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