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Reviewed on:	<b>PM – TPO, FLEX, RIGID, CLEAR – Part B</b>	Version: 1.0

**1. Section 1. Identification of the substance/mixture and of the company/undertaking:**

- 1.1. Product identifier:  
Trade name: **PM – TPO, FLEX, RIGID, CLEAR – Part B**  
Product code: **R 34372/74/76/79**
- 1.2. Relevant identified uses of the substance or mixture and uses advised against:  
Uses of the mixture: Plastic repair putty.  
For professional and industrial use only.  
Uses advised against: Not known.
- 1.3. Details of the supplier of the safety data sheet:  
Identification of manufacturer/Supplier:  
RETECH, s.r.o.  
Vackova 1541/4  
150 00 Praha 5 - Stodůlky  
Telephone number/Fax: +420 327 596 128, +420 327 596 428  
E-mail: info@retech.cz
- 1.4. Emergency telephone number: RETECH, Suchdol 212, 285 02 Suchdol u Kutné Hory, Czech Republic  
Telephone number: +420 327 596 128 (7.30-16.00 hour)  
Toxicologické informační středisko (Toxicology information centre),  
Na bojišti 1, 128 08 PRAHA 2, Czech Republic  
Telephone number: +420 224 919 293, +420 224 915 402 (24 hours a day)

**2. Section 2. Hazard identification:**

- 2.1. Classification of the substance or mixture:  
Classification according to Regulation (EC) No 1272/2008 [CLP]:  
Carc. 2 H351 Suspected of causing cancer.  
Acute Tox. 4 H332 Harmful if inhaled.  
STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.  
Eye Irrit. 2 H319 Causes serious eye irritation.  
Skin Irrit. 2 H315 Causes skin irritation.  
STOT SE 3 H335 May cause respiratory irritation.  
Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
Skin Sens. 1 H317 May cause an allergic skin reaction.

- 2.2. Label elements:  
Labelling according to Regulation (EC) No 1272/2008 [CLP]:



Signal Word: Danger

Hazard Statements:

H351 Suspected of causing cancer.  
H332 Harmful if inhaled.  
H373 May cause damage to organs through prolonged or repeated exposure.  
H319 Causes serious eye irritation.  
H315 Causes skin irritation.  
H335 May cause respiratory irritation.  
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H317 May cause an allergic skin reaction.

Precautionary Statements:

P101 If medical advice is needed, have product container or label at hand.  
P102 Keep out of reach of children.  
P201 Obtain special instructions before use.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.

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P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P308+P313 IF exposed or concerned: Get medical advice/attention.  
P403+P233 Store in a well-ventilated place. Keep container tightly closed.  
P501 Dispose of contents/container in accordance with national regulation.

Supplemental Hazard information (EU):

EUH204 Contains isocyanates. May produce an allergic reaction.

Contained dangerous substances:

9016-87-9 Diphenylmethane diisocyanate, isomers and homologues

Labelling of packages where the contents do not exceed 125 ml (section 1.5 of Annex I to CLP):



Contained dangerous substances:

9016-87-9 Diphenylmethane diisocyanate, isomers and homologues

Restricted to professional users.

For more information see the leaflet.

2.3. Other hazards:

Results of PBT and vPvB assessment:

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**3. Section 3. Composition/information on ingredients:**

3.2. Mixtures:

Description of the mixture: Mixture of active ingredients

Hazardous ingredients:

CAS: 9016-87-9	Diphenylmethane diisocyanate, isomers and homologues Carc. 2, H351; STOT RE 2, H373; Resp. Sens. 1, H334; Acute Tox. 4, H332; Eye Irrit. 2, H319; STOT SE 3, H335; Skin Irrit. 2, H315; Skin Sens. 1, H317	50 - 100 %
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For full text of H-statements: see SECTION 16.

**4. Section 4. First aid measures:**

4.1. Description of first aid measures:

General notes: When in doubt or if symptoms are observed, get medical advice.

After inhalation: Move affected person to fresh air and keep at rest.  
If experiencing respiratory symptoms get medical attention.

After skin contact: Take off immediately all contaminated clothing.  
Wash immediately with plenty of water and soap and rinse thoroughly.  
Get medical attention if any discomfort continues.  
Wash contaminated clothing before reuse.

After eye contact: Rinse opened eye for several minutes under running water.  
Remove contact lenses, if present and easy to do. Continue rinsing.  
Consult a doctor.

After swallowing: Get medical advice/attention.  
Do not induce vomiting without medical advice.  
Never give anything by mouth to an unconscious person, unless authorised by a doctor.

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<p>4.2. Most important symptoms and effects, both acute and delayed: See Section 11.</p> <p>4.3. Indication of any immediate medical attention and special treatment needed: No further relevant information available.</p>	
<p><b>5. Section 5. Fire fighting measures:</b></p> <p>5.1. Extinguishing media: Suitable extinguishing agents: Carbon dioxide (CO<sub>2</sub>), extinguishing powder, foam, water haze. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.</p> <p>Unsuitable extinguishing agents: Water jet.</p> <p>5.2. Special hazards arising from the substance or mixture: Excess pressure may form in containers exposed to fire at a risk of explosion. Do not breathe combustion products.</p> <p>5.3. Advice for firefighters: Wear protective clothing, gloves, boots, helmet and self-contained breathing apparatus. Cool endangered receptacles with water spray to prevent product decomposition and the development of substances potentially hazardous for health. Collect contaminated firefighting water separately, must not be discharged into the drains. Dispose contaminated extinguishing water and remains after the fire in accordance with the official regulations.</p>	
<p><b>6. Section 6. Accidental release measures:</b></p> <p>6.1. Personal precautions, protective equipment and emergency procedures: Wear protective equipment, see Section 8. Ensure adequate ventilation. Keep away from ignition sources.</p> <p>6.2. Environmental precautions: Avoid leakage into the environment. Do not allow to enter sewage system, surface, ground water and soil. Inform respective authorities in case product reaches water course or sewage system.</p> <p>6.3. Methods and material for containment and cleaning up: Prevent further leakage or spillage. Ensure adequate ventilation. Dispose contaminated material as waste according to Section 13.</p> <p>6.4. Reference to other sections: See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for disposal information.</p>	
<p><b>7. Section 7. Handling and storage:</b></p> <p>7.1. Precautions for safe handling: Protective measures: Wear protective equipment, see Section 8. Ensure good ventilation/exhaustion at the workplace. Do not eat, drink or smoke when using this product. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.</p> <p>Measures to prevent fire: Keep away from heat, sparks and naked flames. Do not smoke or use matches or lighters. Without adequate ventilation, vapours may accumulate at ground level, it may travel considerable distance to an ignition source and flash back. Avoid bunching of electrostatic charges.</p> <p>7.2. Conditions for safe storage, including any incompatibilities: Requirements for storage rooms and vessels: Store only in the original container.</p>	

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7.3. Specific end use(s):	<p>Store in a well-ventilated place.</p> <p>Technical measures and storage conditions: Store in a well-ventilated place.</p> <p>Further information on storage conditions: Keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10.</p> <p>No further relevant information available.</p>
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<b>8. Section 8. Exposure controls/personal protection:</b>	
8.1. Control parameters:	<p>Components with limit values that require monitoring at the workplace: WEL (United Kingdom): EH40/2005 Contains no substances with occupational exposure limit values.</p> <p>OEL (EU): 2000/39/EG, 2006/15/EG, 2009/161/EG Contains no substances with occupational exposure limit values.</p> <p>Additional information: The lists that were valid during the compilation were as basis.</p>
8.2. Exposure controls:	<p>Technical measures to prevent exposure: Ensure good ventilation/exhaustion at the workplace. An emergency eye washing and shower system must be provided.</p> <p>General protective measures: Store away from foodstuffs, beverages and feed. Wash hands before breaks and at the end of work. Wash body with soap and water after removing overalls.</p> <p>Personal protection equipment: In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption. Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Consequently, personal protective equipment must be managed so as to guarantee maximum protection (e.g. by reducing the replacement times for used personal protection equipment).</p> <p>Respiratory protection: In case of inadequate ventilation wear respiratory protection. Respiratory protection must be used if the general level exceeds the recommended occupational exposure limit. Wear a mask with an B or universal filter, the class (1, 2 or 3) of which must be chosen according to the limit concentration of use. The protection provided by masks is in any case limited. In case of intensive or longer exposure or in case of emergency wear self-contained, open-circuit compressed air breathing apparatus.</p> <p>Eye protection: Protective airtight goggles.</p> <p>Hand protection: Protective gloves Category III Recommend material of gloves: PVA, butyl, fluoroelastomer or equivalent. The final selection of the glove material must be carried out on the basis of penetration times, permeation rates and degradation. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application. Gloves' limit depends on the duration of exposure.</p> <p>Skin protection: Wear category III professional long-sleeved overalls and safety footwear.</p>

<b>9. Section 9. Physical and chemical properties:</b>	
9.1. Information on basic physical and chemical properties:	
Form:	Liquid

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Colour:	Amber
Odour:	Characterisrtic
Odour threshold:	Not determined.
Value pH at 20 °C:	Not determined.
Melting point/freezing point:	Not determined.
Initial boiling point/boiling range:	> 300 °C
Flash point:	205 °C
Evaporation rate:	Not determined.
Flammability (solid, gas):	Not determined.
Explosive properties:	Not determined.
Explosive limits:	
– lower:	Not determined.
– upper:	Not determined.
Vapour pressure at 20°C:	0,01 Pa
Vapour density at 20 °C:	Not determined.
Density at 20°C:	1.220 g/cm <sup>3</sup>
Relative density:	Not determined.
Solubility in/miscibility:	Insoluble in water.
Partition coefficient (n-octanol/water):	Not determined.
Ignition temperature:	> 600 °C
Decomposition temperature:	Not determined.
Self-ignition temperature:	Not determined.
Viscosity:	1000 mPa.s
Oxidising properties:	Not determined.

9.2. Other information:  
VOC: 0 g/l

**10. Section 10. Stability and reactivity:**

- 10.1. Reactivity: The product may react exothermically on contact with strong oxidising or reducing agents, strong acids or bases.
- 10.2. Chemical stability: Excessively high temperatures can cause thermal decomposition.
- 10.3. Possibility of hazardous reactions: See section 10.1.
- 10.4. Conditions to avoid: Avoid overheating.
- 10.5. Incompatible materials: Oxidising or reducing agents. Strong acids or bases.
- 10.6. Hazardous decomposition products: In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

**11. Section 11. Toxicological information:**

- 11.1. Information on toxicological effects:  
In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.  
This product must be handled carefully because of its possible carcinogenic effects. Anyway, currently available data do not allow us to comprehensively assess this product.
- |                                    |  |
|------------------------------------|--|
| Acute toxicity:                    | Harmful if inhaled.  |
| Skin corrosion/irritation:         | Causes skin irritation.  |
| Serious eye damage/irritation:     | Causes serious eye irritation.   |
| Respiratory or skin sensitization: | May cause allergy or asthma symptoms or breathing difficulties if inhaled.<br>May cause an allergic skin reaction. |
| Germ cell mutagenicity:            | Based on available data, the classification criteria are not met.  |

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Carcinogenicity:	Suspected of causing cancer.
Reproductive toxicity:	Based on available data, the classification criteria are not met.
STOT - single exposure:	May cause respiratory irritation.
STOT - repeated exposure:	May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard:	Based on available data, the classification criteria are not met.
Other information:	
Acute effects:	Exposure symptoms may include: stinging and irritated eyes, mouth, nose, throat; cough, respiratory disorders, dizziness, headache, nausea and sickness. In the most serious cases, inhalation of this product may cause larynx and bronchial tube edema and irritation, chemical pneumonia and pulmonary edema. This product may cause functional disorders or morphological mutations after repeated or prolonged exposure and/or may accumulate inside the human body and is thus graded as dangerous.
After eye contact:	It may cause stinging eyes. Symptoms may include rubescence, edema, pain and lachrymation.
After inhalation:	Inhalation of this product is harmful. Vapour inhalation may irritate the lower and upper respiratory tract and cause cough and respiratory disorders. At higher concentrations it can also cause pulmonary edema. Inhalation of this product causes sensitization, which may then give rise to a series of inflammatory episodes, most of all characterized by obstruction and affecting the respiratory system. Sometimes, sensitization phenomena arise together with evident rhinitis and asthma. Damages to the respiratory system depend on the inhaled quantity, on the product concentration in the working environment and on the exposure time.
After ingestion:	Ingestion may cause health disorders, including stomach pain and sting, nausea and sickness.
After skin contact:	Contact with skin may cause irritation, erythema, edema, dryness and chapped skin. Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurves, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

### 12. Section 12. Ecological information:

#### 12.1. Toxicity:

##### Aquatic toxicity:

9016-87-9 Diphenylmethane diisocyanate, isomers and homologues

Fish:	LC50	> 1000 mg/l
Invertebrates:	EC50	Daphnia magna > 1000 mg/l

12.2. Persistence and degradability: No further relevant information available.

12.3. Bioaccumulative potential: No further relevant information available.

12.4. Mobility in soil: No further relevant information available.

##### Additional ecological information:

##### General notes:

Avoid the leakage.

Do not contaminate soil, sewers and waterways.

Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation.

12.5. Results of PBT and vPvB assessment:

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6. Other adverse effects:

No further relevant information available.

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### 13. Section 13. Disposal considerations:

#### 13.1. Waste treatment methods:

Product disposal:	Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations. Do not contaminate soil, sewers and waterways. European Waste Catalogue: 08 05 01* waste isocyanates (*hazardous waste)
Packagings disposal:	Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations. European Waste Catalogue: 15 01 10* packaging containing residues of or contaminated by hazardous substances (*hazardous waste)
Other disposal recommendations:	Disposal must be made according to official regulations. The final decisions on the appropriate waste management method, in line with regional, national and European legislation, and possible adaptation to local conditions, remains the responsibility of the waste treatment operator.

### 14. Section 14. Transport information:

14.1. UN number:	ADR/RID, IMDG, IATA	Not classified as hazardous for transport.
14.2. UN proper shipping name:	ADR/RID IMDG IATA	Not applicable. Not applicable. Not applicable.
14.3. Transport hazard class(es):	ADR/RID IMDG IATA	Not applicable. Not applicable. Not applicable.
14.4. Packing group:	ADR/RID, IMDG, IATA	Not applicable.
14.5. Environmental hazards:		Not applicable.
14.6. Special precautions for user:		Not applicable.
14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code:		Not applicable.

### 15. Section 15. Regulatory information:

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

##### Used legislation:

Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals, as amended (REACH)  
Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures, as amended (CLP)  
Regulation (EC) No 648/2004 of the European Parliament and of the Council on detergents, as amended  
Commission Decision 2000/532/EC establishing a list of wastes, as amended  
Council Directive 89/686/EEC on the approximation of the laws of the Member States relating to personal protective equipment, as amended  
Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work, as amended  
Commission Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values  
Commission Directive 2006/15/EC establishing a second list of indicative occupational exposure limit values  
Commission Directive 2009/161/EU establishing a third list of indicative occupational exposure limit values  
Directive 2004/42/CE of the European Parliament and of the Council on the limitation of emissions of volatile organic compounds due to the use of organic solvents in certain paints and varnishes and vehicle refinishing products and amending Directive 1999/13/EC, as amended



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15.2. Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

**16. Section 16. Other information:**

Relevant H-statements (Section 3):

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 <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.

H373 May cause damage to organs <or state all organs affected, if known> through prolonged or repeated exposure <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

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

EC50: Median effective concentration to 50% of a population

IATA: International Air Transport Association

IMDG: International Maritime Code for Dangerous Goods

LC50: Median concentration lethal to 50 % of a test population

PBT: Persistent, Bioaccumulative, Toxic

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

VOC: Volatile Organic Compounds

vPvB: Very Persistent, Very Bioaccumulative

Acute Tox. 4: Acute toxicity, category 4

Carc. 2: Carcinogenicity, category 2

Eye Irrit. 2: Serious eye irritation, category 2

Resp. Sens. 1: Respiratory sensitization, category 1

Skin Irrit. 2: Skin irritation, category 2

Skin. Sens. 1: Skin sensitization, category 1

STOT RE 2: Specific target organ toxicity — repeated exposure, category 2

STOT SE 3: Specific target organ toxicity — single exposure, category 3

The information contained herein is based on our best knowledge and the present legislation. Further, the Safety Data Sheet has been elaborated on the basis of the original Safety Data Sheet provided by the manufacturer.

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**\*Compared to the last version the data has been changed.**