



## MORCEM DRY PU (COMP. A)

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

**1.1 Product identifier:** MORCEM DRY PU (COMP. A)

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

Relevant uses: Coatings for warehouses. For professional user/industrial user only.

Uses advised against: All uses not specified in this section or in section 7.3

**1.3 Details of the supplier of the safety data sheet:**

Grupo Puma SL

Parque Industrial Trévez. Calle Conrado del Campo, nº 2 – 1ª Planta

29590 Campanillas - Málaga - Spain

Phone.: +34 901 11 69 12 -

Fax: +34 957 44 19 92

fds@grupopuma.com

www.grupopuma.com

**1.4 Emergency telephone number:** 901 11 69 12 (Horario de atención: 08:30 – 13:30 y de 16:00 – 19:00)

### SECTION 2: HAZARDS IDENTIFICATION

**2.1 Classification of the substance or mixture:**

**CLP Regulation (EC) nº 1272/2008:**

The product is not classified as dangerous according to CLP Regulation (EC) nº 1272/2008.

**2.2 Label elements:**

**CLP Regulation (EC) nº 1272/2008:**

None

**2.3 Other hazards:**

Non-applicable

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

**3.1 Substance:**

Non-applicable

**3.2 Mixture:**

**Chemical description:** Mixture of substances

**Components:**

In accordance with Annex II of Regulation (EC) nº1907/2006 (point 3), the product contains:

| Identification                                                                              | Chemical name/Classification                                                    | Concentration                          |
|---------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|----------------------------------------|
| CAS: Non-applicable<br>EC: Non-applicable<br>Index: Non-applicable<br>REACH: Non-applicable | <b>Branched polyalcohol with ester and ether groups</b><br>Regulation 1272/2008 | Not classified<br><b>40 - &lt;50 %</b> |
| CAS: 14808-60-7<br>EC: 238-878-4<br>Index: Non-applicable<br>REACH: Non-applicable          | <b>Quartz (RCS &lt; 1 %)</b><br>Regulation 1272/2008                            | Not classified<br><b>&lt;15 %</b>      |
| CAS: 13463-67-7<br>EC: 236-675-5<br>Index: Non-applicable<br>REACH: 01-2119489379-17-XXXX   | <b>Titanium dioxide</b><br>Regulation 1272/2008                                 | Not classified<br><b>&lt;15 %</b>      |
| CAS: 8001-79-4<br>EC: 232-293-8<br>Index: Non-applicable<br>REACH: Non-applicable           | <b>Castor oil</b><br>Regulation 1272/2008                                       | Not classified<br><b>&lt;15 %</b>      |
| CAS: 1318-02-1<br>EC: 215-283-8<br>Index: Non-applicable<br>REACH: 01-2119429034-49-XXXX    | <b>Zeolites</b><br>Regulation 1272/2008                                         | Not classified<br><b>&lt;15 %</b>      |

To obtain more information on the risk of the substances consult sections 8, 11, 12, 15 and 16.

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## MORCEM DRY PU (COMP. A)

### SECTION 4: FIRST AID MEASURES

#### 4.1 Description of first aid measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

##### By inhalation:

This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

##### By skin contact:

In case of contact it is recommended to clean the affected area thoroughly with water and neutral soap. In case of modifications on the skin (stinging, redness, rashes, blisters,...), seek medical advice with this Safety data Sheet

##### By eye contact:

This product does not contain substances classified as hazardous for eye contact. Rinse eyes thoroughly for at least 15 minutes with lukewarm water, ensuring that the person affected does not rub or close their eyes.

##### By ingestion/aspiration:

In case of consumption, seek immediate medical assistance showing the SDS of this product.

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

Acute and delayed effects are indicated in sections 2 and 11.

#### 4.3 Indication of any immediate medical attention and special treatment needed:

Non-applicable

### SECTION 5: FIREFIGHTING MEASURES

#### 5.1 Extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

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

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

#### 5.3 Advice for firefighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...) in accordance with Directive 89/654/EC.

##### Additional provisions:

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

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

Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

#### 6.2 Environmental precautions:

This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

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

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

#### 6.4 Reference to other sections:

See sections 8 and 13.

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**MORCEM DRY PU (COMP. A)**

**SECTION 7: HANDLING AND STORAGE**

**7.1 Precautions for safe handling:**

A.- Precautions for safe manipulation

Comply with the current legislation concerning the prevention of industrial risks. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions

Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

**7.2 Conditions for safe storage, including any incompatibilities:**

A.- Technical measures for storage

Minimum Temp.: 5 °C

Maximum Temp.: 30 °C

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

**7.3 Specific end use(s):**

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

**8.1 Control parameters:**

Substances whose occupational exposure limits have to be monitored in the work environment

There are no occupational exposure limits for the substances contained in the product

**DNEL (Workers):**

| Identification                                       |            | Short exposure |                | Long exposure  |                      |
|------------------------------------------------------|------------|----------------|----------------|----------------|----------------------|
|                                                      |            | Systemic       | Local          | Systemic       | Local                |
| Titanium dioxide<br>CAS: 13463-67-7<br>EC: 236-675-5 | Oral       | Non-applicable | Non-applicable | Non-applicable | Non-applicable       |
|                                                      | Dermal     | Non-applicable | Non-applicable | Non-applicable | Non-applicable       |
|                                                      | Inhalation | Non-applicable | Non-applicable | Non-applicable | 10 mg/m <sup>3</sup> |
| Zeolites<br>CAS: 1318-02-1<br>EC: 215-283-8          | Oral       | Non-applicable | Non-applicable | Non-applicable | Non-applicable       |
|                                                      | Dermal     | Non-applicable | Non-applicable | 2,5 mg/kg      | Non-applicable       |
|                                                      | Inhalation | Non-applicable | Non-applicable | Non-applicable | 3 mg/m <sup>3</sup>  |

**DNEL (General population):**

| Identification                                       |            | Short exposure |                | Long exposure  |                         |
|------------------------------------------------------|------------|----------------|----------------|----------------|-------------------------|
|                                                      |            | Systemic       | Local          | Systemic       | Local                   |
| Titanium dioxide<br>CAS: 13463-67-7<br>EC: 236-675-5 | Oral       | Non-applicable | Non-applicable | 700 mg/kg      | Non-applicable          |
|                                                      | Dermal     | Non-applicable | Non-applicable | Non-applicable | Non-applicable          |
|                                                      | Inhalation | Non-applicable | Non-applicable | Non-applicable | Non-applicable          |
| Zeolites<br>CAS: 1318-02-1<br>EC: 215-283-8          | Oral       | Non-applicable | Non-applicable | 1,25 mg/kg     | Non-applicable          |
|                                                      | Dermal     | Non-applicable | Non-applicable | 1,25 mg/kg     | Non-applicable          |
|                                                      | Inhalation | Non-applicable | Non-applicable | Non-applicable | 0,003 mg/m <sup>3</sup> |

**PNEC:**

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**MORCEM DRY PU (COMP. A)**

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)**

| Identification                                       |              |                |                         |                |
|------------------------------------------------------|--------------|----------------|-------------------------|----------------|
| Titanium dioxide<br>CAS: 13463-67-7<br>EC: 236-675-5 | STP          | 100 mg/L       | Fresh water             | 0,127 mg/L     |
|                                                      | Soil         | 100 mg/kg      | Marine water            | 1 mg/L         |
|                                                      | Intermittent | 0,61 mg/L      | Sediment (Fresh water)  | 1000 mg/kg     |
|                                                      | Oral         | 1667 g/kg      | Sediment (Marine water) | 100 mg/kg      |
| Zeolites<br>CAS: 1318-02-1<br>EC: 215-283-8          | STP          | 95 mg/L        | Fresh water             | 3,2 mg/L       |
|                                                      | Soil         | 600 mg/kg      | Marine water            | 0,32 mg/L      |
|                                                      | Intermittent | Non-applicable | Sediment (Fresh water)  | Non-applicable |
|                                                      | Oral         | Non-applicable | Sediment (Marine water) | Non-applicable |

**8.2 Exposure controls:**

**A.- General security and hygiene measures in the work place**

As a preventative measure it is recommended to use basic Personal Protection Equipment, with the corresponding <<CE marking>> in accordance with Directive 89/686/EC. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1.

All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

**B.- Respiratory protection**

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

**C.- Specific protection for the hands**

| Pictogram                                                                                                        | PPE                                   | Labelling                                                                           | CEN Standard | Remarks                                                                                                                                                                                                       |
|------------------------------------------------------------------------------------------------------------------|---------------------------------------|-------------------------------------------------------------------------------------|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <br>Mandatory hand protection | Protective gloves against minor risks |  |              | Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional users/industrials, we recommend using CE III gloves in line with standards EN 420 and EN 374. |

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

**D.- Ocular and facial protection**

| Pictogram                                                                                                        | PPE                                     | Labelling                                                                           | CEN Standard                    | Remarks                                                                                                                   |
|------------------------------------------------------------------------------------------------------------------|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| <br>Mandatory face protection | Panoramic glasses against liquid splash |  | EN 166:2001<br>EN ISO 4007:2012 | Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing. |

**E.- Bodily protection**

| Pictogram | PPE                  | Labelling                                                                           | CEN Standard      | Remarks                                                                                                                                                                                                                                                           |
|-----------|----------------------|-------------------------------------------------------------------------------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|           | Work clothing        |  |                   | Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 6529:2001, EN ISO 6530:2005, EN ISO 13688:2013, EN 464:1994. |
|           | Anti-slip work shoes |  | EN ISO 20347:2012 | Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 20345 y EN 13832-1                                           |

**F.- Additional emergency measures**

| Emergency measure                                                                                       | Standards                      | Emergency measure                                                                                        | Standards                     |
|---------------------------------------------------------------------------------------------------------|--------------------------------|----------------------------------------------------------------------------------------------------------|-------------------------------|
| <br>Emergency shower | ANSI Z358-1<br>ISO 3864-1:2002 | <br>Eyewash stations | DIN 12 899<br>ISO 3864-1:2002 |

**Environmental exposure controls:**

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

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## MORCEM DRY PU (COMP. A)

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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

For complete information see the product datasheet.

##### Appearance:

|                          |                  |
|--------------------------|------------------|
| Physical state at 20 °C: | Liquid           |
| Appearance:              | Paste            |
| Color:                   | Not available    |
| Odor:                    | Not available    |
| Odour threshold:         | Non-applicable * |

##### Volatility:

|                                        |                  |
|----------------------------------------|------------------|
| Boiling point at atmospheric pressure: | 300 °C           |
| Vapour pressure at 20 °C:              | Non-applicable * |
| Vapour pressure at 50 °C:              | Non-applicable * |
| Evaporation rate at 20 °C:             | Non-applicable * |

##### Product description:

|                                              |                  |
|----------------------------------------------|------------------|
| Density at 20 °C:                            | Non-applicable * |
| Relative density at 20 °C:                   | 1,3              |
| Dynamic viscosity at 20 °C:                  | 12000 cP         |
| Kinematic viscosity at 20 °C:                | Non-applicable * |
| Kinematic viscosity at 40 °C:                | >20,5 cSt        |
| Concentration:                               | Non-applicable * |
| pH:                                          | Non-applicable * |
| Vapour density at 20 °C:                     | Non-applicable * |
| Partition coefficient n-octanol/water 20 °C: | Non-applicable * |
| Solubility in water at 20 °C:                | Non-applicable * |
| Solubility properties:                       | Non-applicable * |
| Decomposition temperature:                   | Non-applicable * |
| Melting point/freezing point:                | Non-applicable * |
| Explosive properties:                        | Non-applicable * |
| Oxidising properties:                        | Non-applicable * |

##### Flammability:

|                            |                  |
|----------------------------|------------------|
| Flash Point:               | 127 °C           |
| Flammability (solid, gas): | Non-applicable * |
| Autoignition temperature:  | Non-applicable * |
| Lower flammability limit:  | Non-applicable * |
| Upper flammability limit:  | Non-applicable * |

#### 9.2 Other information:

|                           |                  |
|---------------------------|------------------|
| Surface tension at 20 °C: | Non-applicable * |
| Refraction index:         | Non-applicable * |

\*Not relevant due to the nature of the product, not providing information property of its hazards.

### SECTION 10: STABILITY AND REACTIVITY

#### 10.1 Reactivity:

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

#### 10.2 Chemical stability:

Chemically stable under the conditions of storage, handling and use.

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## MORCEM DRY PU (COMP. A)

### SECTION 10: STABILITY AND REACTIVITY (continued)

#### 10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

#### 10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

| Shock and friction | Contact with air | Increase in temperature | Sunlight       | Humidity       |
|--------------------|------------------|-------------------------|----------------|----------------|
| Not applicable     | Not applicable   | Not applicable          | Not applicable | Not applicable |

#### 10.5 Incompatible materials:

| Acids              | Water          | Combustive materials | Combustible materials | Others                        |
|--------------------|----------------|----------------------|-----------------------|-------------------------------|
| Avoid strong acids | Not applicable | Not applicable       | Not applicable        | Avoid alkalis or strong bases |

#### 10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO<sub>2</sub>), carbon monoxide and other organic compounds.

### SECTION 11: TOXICOLOGICAL INFORMATION

#### 11.1 Information on toxicological effects:

The experimental information related to the toxicological properties of the product itself is not available

##### Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

##### A.- Ingestion (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

##### B- Inhalation (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

##### C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for skin contact. For more information see section 3.
- Contact with the eyes: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

##### D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

##### E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

##### F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

##### G- Specific target organ toxicity (STOT)-repeated exposure:

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## MORCEM DRY PU (COMP. A)

### SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

#### H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

#### Other information:

Non-applicable

#### Specific toxicology information on the substances:

| Identification   | Acute toxicity  |                | Genus  |
|------------------|-----------------|----------------|--------|
|                  | LD50 oral       | LD50 dermal    |        |
| Titanium dioxide | 10000 mg/kg     | 10000 mg/kg    | Rat    |
| CAS: 13463-67-7  | LD50 dermal     | 10000 mg/kg    | Rabbit |
| EC: 236-675-5    | LC50 inhalation | Non-applicable |        |

### SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

#### 12.1 Toxicity:

Not available

#### 12.2 Persistence and degradability:

Not available

#### 12.3 Bioaccumulative potential:

Not available

#### 12.4 Mobility in soil:

Not available

#### 12.5 Results of PBT and vPvB assessment:

Non-applicable

#### 12.6 Other adverse effects:

Not described

### SECTION 13: DISPOSAL CONSIDERATIONS

#### 13.1 Waste treatment methods:

| Code     | Description                                                         | Waste class (Regulation (EU) No 1357/2014) |
|----------|---------------------------------------------------------------------|--------------------------------------------|
| 08 04 10 | Waste adhesives and sealants other than those mentioned in 08 04 09 | Non dangerous                              |

#### Type of waste (Regulation (EU) No 1357/2014):

Non-applicable

#### Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations in accordance with Annex 1 and Annex 2 (Directive 2008/98/EC). As under 15 01 (2014/955/EC) of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See paragraph 6.2.

#### Regulations related to waste management:

In accordance with Annex II of Regulation (EC) n°1907/2006 (REACH) the community or state provisions related to waste management are stated

Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014

### SECTION 14: TRANSPORT INFORMATION

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## MORCEM DRY PU (COMP. A)

### SECTION 14: TRANSPORT INFORMATION (continued)

This product is not regulated for transport (ADR/RID,IMDG,IATA)

### SECTION 15: REGULATORY INFORMATION

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

Candidate substances for authorisation under the Regulation (EC) 1907/2006 (REACH): Non-applicable

Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Non-applicable

Regulation (EC) 1005/2009, about substances that deplete the ozone layer: Non-applicable

Article 95, REGULATION (EU) No 528/2012: Non-applicable

REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: Non-applicable

**Limitations to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII REACH, etc ....):**

Non-applicable

**Specific provisions in terms of protecting people or the environment:**

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

**Other legislation:**

The product could be affected by sectorial legislation

#### 15.2 Chemical safety assessment:

The supplier has not carried out evaluation of chemical safety.

### SECTION 16: OTHER INFORMATION

#### Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with ANNEX II-Guide to the compilation of safety data sheets of Regulation (EC) N° 1907/2006 (Regulation (EC) N° 2015/830)

#### Modifications related to the previous Safety Data Sheet which concerns the ways of managing risks.:

Non-applicable

#### Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

#### CLP Regulation (EC) n° 1272/2008:

Non-applicable

#### Classification procedure:

Non-applicable

#### Advice related to training:

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

#### Principal bibliographical sources:

<http://esis.jrc.ec.europa.eu>

<http://echa.europa.eu>

<http://eur-lex.europa.eu>

#### Abbreviations and acronyms:



**MORCEM DRY PU (COMP. A)**

**SECTION 16: OTHER INFORMATION (continued)**

ADR: European agreement concerning the international carriage of dangerous goods by road  
IMDG: International maritime dangerous goods code  
IATA: International Air Transport Association  
ICAO: International Civil Aviation Organisation  
COD: Chemical Oxygen Demand  
BOD5: 5-day biochemical oxygen demand  
BCF: Bioconcentration factor  
LD50: Lethal Dose 50  
LC50: Lethal Concentration 50  
EC50: Effective concentration 50  
Log-POW: Octanol–water partition coefficient  
Koc: Partition coefficient of organic carbon

The information contained in this safety data sheet is based on sources, technical knowledge and current legislation at European and state level, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

- END OF SAFETY DATA SHEET -



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

**1.1 Product identifier:** MORCEM DRY PU (COMP. B)

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

Relevant uses: Coatings for warehouses. For professional user/industrial user only.

Uses advised against: All uses not specified in this section or in section 7.3

**1.3 Details of the supplier of the safety data sheet:**

Grupo Puma SL

Parque Industrial Trévez. Calle Conrado del Campo, nº 2 – 1ª Planta

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**1.4 Emergency telephone number:** 901 11 69 12 (Horario de atención: 08:30 – 13:30 y de 16:00 – 19:00)

## SECTION 2: HAZARDS IDENTIFICATION

**2.1 Classification of the substance or mixture:**

**CLP Regulation (EC) nº 1272/2008:**

Classification of this product has been carried out in accordance with CLP Regulation (EC) nº 1272/2008.

Acute Tox. 4: Acute inhalation toxicity, Category 4, H332

Carc. 2: Carcinogenicity, Category 2, H351

Eye Irrit. 2: Eye irritation, Category 2, H319

Resp. Sens. 1: Sensitisation, respiratory, Category 1, H334

Skin Irrit. 2: Skin irritation, Category 2, H315

Skin Sens. 1: Sensitisation, skin, Category 1, H317

STOT RE 2: Specific target organ toxicity by inhalation, repeated exposure, Category 2, H373

STOT SE 3: Respiratory tract toxicity, single exposure, Category 3, H335

**2.2 Label elements:**

**CLP Regulation (EC) nº 1272/2008:**

**Danger**



**Hazard statements:**

Harmful if inhaled

Suspected of causing cancer

Causes serious eye irritation

May cause allergy or asthma symptoms or breathing difficulties if inhaled

Causes skin irritation

May cause an allergic skin reaction

May cause damage to organs through prolonged or repeated exposure (Inhalation)

May cause respiratory irritation

**Precautionary statements:**

Obtain special instructions before use

Do not breathe dust/fume/gas/mist/vapours/spray

Wear protective gloves/protective clothing/eye protection/face protection

Wear respiratory protection

IF INHALED: Remove person to fresh air and keep comfortable for breathing

Call a POISON CENTER or doctor/physician if you feel unwell

Take off contaminated clothing and wash it before reuse

**Supplementary information:**

Contains isocyanates. May produce an allergic reaction

**2.3 Other hazards:**

Non-applicable



## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1 Substance:

Non-applicable

### 3.2 Mixture:

**Chemical description:** Organic substance

#### Components:

In accordance with Annex II of Regulation (EC) n°1907/2006 (point 3), the product contains:

| Identification                                                                        | Chemical name/Classification                                                                                                                                                                                                                                 | Concentration                     |
|---------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|
| CAS: 9016-87-9<br>EC: Non-applicable<br>Index: 615-005-00-9<br>REACH: Non-applicable  | <b>4,4'-methylenediphenyl diisocyanate, isomers and homologues</b><br>Regulation 1272/2008<br>Acute Tox. 4: H332; Carc. 2: H351; Eye Irrit. 2: H319; Resp. Sens. 1: H334; Skin Irrit. 2: H315; Skin Sens. 1: H317; STOT RE 2: H373; STOT SE 3: H335 - Danger | ATP ATP01<br><b>0 - &lt;100 %</b> |
| CAS: 101-68-8<br>EC: 202-966-0<br>Index: 615-005-00-9<br>REACH: 01-2119457014-47-XXXX | <b>4,4'-methylenediphenyl diisocyanate</b><br>Regulation 1272/2008<br>Acute Tox. 4: H332; Carc. 2: H351; Eye Irrit. 2: H319; Resp. Sens. 1: H334; Skin Irrit. 2: H315; Skin Sens. 1: H317; STOT RE 2: H373; STOT SE 3: H335 - Danger                         | ATP CLP00<br><b>0 - &lt;100 %</b> |

To obtain more information on the risk of the substances consult sections 8, 11, 12, 15 and 16.

## SECTION 4: FIRST AID MEASURES

### 4.1 Description of first aid measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

#### By inhalation:

Remove the person affected from the area of exposure, provide with fresh air and keep at rest. In serious cases such as cardiorespiratory failure, artificial resuscitation techniques will be necessary (mouth to mouth resuscitation, cardiac massage, oxygen supply, etc.) requiring immediate medical assistance.

#### By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

#### By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

#### By ingestion/aspiration:

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

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

Acute and delayed effects are indicated in sections 2 and 11.

### 4.3 Indication of any immediate medical attention and special treatment needed:

Non-applicable

## SECTION 5: FIREFIGHTING MEASURES

### 5.1 Extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use. In the case of inflammation as a result of improper manipulation, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems. IT IS NOT RECOMMENDED to use tap water as an extinguishing agent.

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

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

### 5.3 Advice for firefighters:

- CONTINUED ON NEXT PAGE -



## SECTION 5: FIREFIGHTING MEASURES (continued)

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...) in accordance with Directive 89/654/EC.

### Additional provisions:

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

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

Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilled product (See section 8). Evacuate the area and keep out those who do not have protection.

### 6.2 Environmental precautions:

This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

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

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

### 6.4 Reference to other sections:

See sections 8 and 13.

## SECTION 7: HANDLING AND STORAGE

### 7.1 Precautions for safe handling:

A.- Precautions for safe manipulation

Comply with the current legislation concerning the prevention of industrial risks. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions

Product is non-flammable under normal conditions of storage, manipulation and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations to prevent ergonomic and toxicological risks

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

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

A.- Technical measures for storage

Minimum Temp.: 5 °C

Maximum Temp.: 30 °C

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

### 7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters:

- CONTINUED ON NEXT PAGE -



**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)**

Substances whose occupational exposure limits have to be monitored in the work environment

There are no occupational exposure limits for the substances contained in the product

**DNEL (Workers):**

| Identification                                                        |            | Short exposure        |                       | Long exposure          |                        |
|-----------------------------------------------------------------------|------------|-----------------------|-----------------------|------------------------|------------------------|
|                                                                       |            | Systemic              | Local                 | Systemic               | Local                  |
| 4,4'-methylenediphenyl diisocyanate<br>CAS: 101-68-8<br>EC: 202-966-0 | Oral       | Non-applicable        | Non-applicable        | Non-applicable         | Non-applicable         |
|                                                                       | Dermal     | 50 mg/kg              | Non-applicable        | Non-applicable         | Non-applicable         |
|                                                                       | Inhalation | 0,1 mg/m <sup>3</sup> | 0,1 mg/m <sup>3</sup> | 0,05 mg/m <sup>3</sup> | 0,05 mg/m <sup>3</sup> |

**DNEL (General population):**

| Identification                                                        |            | Short exposure         |                        | Long exposure           |                         |
|-----------------------------------------------------------------------|------------|------------------------|------------------------|-------------------------|-------------------------|
|                                                                       |            | Systemic               | Local                  | Systemic                | Local                   |
| 4,4'-methylenediphenyl diisocyanate<br>CAS: 101-68-8<br>EC: 202-966-0 | Oral       | 20 mg/kg               | Non-applicable         | Non-applicable          | Non-applicable          |
|                                                                       | Dermal     | 25 mg/kg               | Non-applicable         | Non-applicable          | Non-applicable          |
|                                                                       | Inhalation | 0,05 mg/m <sup>3</sup> | 0,05 mg/m <sup>3</sup> | 0,025 mg/m <sup>3</sup> | 0,025 mg/m <sup>3</sup> |

**PNEC:**

| Identification                                                        |              |                |                         |                |  |
|-----------------------------------------------------------------------|--------------|----------------|-------------------------|----------------|--|
| 4,4'-methylenediphenyl diisocyanate<br>CAS: 101-68-8<br>EC: 202-966-0 | STP          | 1 mg/L         | Fresh water             | 1 mg/L         |  |
|                                                                       | Soil         | 1 mg/kg        | Marine water            | 0,1 mg/L       |  |
|                                                                       | Intermittent | 10 mg/L        | Sediment (Fresh water)  | Non-applicable |  |
|                                                                       | Oral         | Non-applicable | Sediment (Marine water) | Non-applicable |  |

**8.2 Exposure controls:**

**A.- General security and hygiene measures in the work place**

In accordance with the order of importance to control professional exposure (Directive 98/24/EC) it is recommended to use localized extraction in the work area as a collective protection measure to avoid exceeding the professional exposure limits. In case of using individual protection equipment they should have the CE marking in accordance with Directive 89/686/EC. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For additional information see subsection 7.1.

All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

**B.- Respiratory protection**

| Pictogram                                                                                                                     | PPE                               | Labelling                                                                           | CEN Standard        | Remarks                                                                                                                                                              |
|-------------------------------------------------------------------------------------------------------------------------------|-----------------------------------|-------------------------------------------------------------------------------------|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <br>Mandatory respiratory tract protection | Filter mask for gases and vapours |  | EN 405:2001+A1:2009 | Replace when there is a taste or smell of the contaminant inside the face mask. If the contaminant comes with warnings it is recommended to use isolation equipment. |

**C.- Specific protection for the hands**

| Pictogram                                                                                                        | PPE                                       | Labelling                                                                           | CEN Standard                                                  | Remarks                                                                                                                                                                                            |
|------------------------------------------------------------------------------------------------------------------|-------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <br>Mandatory hand protection | NON-disposable chemical protective gloves |  | EN 374-1:2003<br>EN 374-3:2003/AC:2006<br>EN 420:2003+A1:2009 | The Breakthrough Time indicated by the manufacturer must exceed the period during which the product is being used. Do not use protective creams after the product has come into contact with skin. |

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application

**D.- Ocular and facial protection**

| Pictogram                                                                                                        | PPE       | Labelling                                                                           | CEN Standard                                                  | Remarks                                                                                                                   |
|------------------------------------------------------------------------------------------------------------------|-----------|-------------------------------------------------------------------------------------|---------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| <br>Mandatory face protection | Face mask |  | EN 166:2001<br>EN 167:2001<br>EN 168:2001<br>EN ISO 4007:2012 | Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing. |

**E.- Bodily protection**

- CONTINUED ON NEXT PAGE -



**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)**

| Pictogram                                                                                                               | PPE                                                       | Labelling                                                                         | CEN Standard                                                                                                               | Remarks                                                                                     |
|-------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| <br>Mandatory complete body protection | Disposable clothing for protection against chemical risks |  | EN 13034:2005+A1:2009<br>EN 168:2001<br>EN ISO 13982-1:2004/A1:2010<br>EN ISO 6529:2001<br>EN ISO 6530:2005<br>EN 464:1994 | For professional use only. Clean periodically according to the manufacturer's instructions. |
| <br>Mandatory foot protection          | Safety footwear for protection against chemical risk      |  | EN ISO 20345:2011<br>EN 13832-1:2006                                                                                       | Replace boots at any sign of deterioration.                                                 |

F.- Additional emergency measures

| Emergency measure                                                                                     | Standards                      | Emergency measure                                                                                      | Standards                     |
|-------------------------------------------------------------------------------------------------------|--------------------------------|--------------------------------------------------------------------------------------------------------|-------------------------------|
| <br>Emergency shower | ANSI Z358-1<br>ISO 3864-1:2002 | <br>Eyewash stations | DIN 12 899<br>ISO 3864-1:2002 |

**Environmental exposure controls:**

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

**9.1 Information on basic physical and chemical properties:**

For complete information see the product datasheet.

**Appearance:**

Physical state at 20 °C: Liquid  
Appearance: Not available  
Color:  Brown  
Odor: Not available  
Odour threshold: Non-applicable \*

**Volatility:**

Boiling point at atmospheric pressure: Non-applicable \*  
Vapour pressure at 20 °C: 0 Pa  
Vapour pressure at 50 °C: Non-applicable \*  
Evaporation rate at 20 °C: Non-applicable \*

**Product description:**

Density at 20 °C: Non-applicable \*  
Relative density at 20 °C: 1,21 - 1,25  
Dynamic viscosity at 20 °C: 160 - 240 cP  
Kinematic viscosity at 20 °C: Non-applicable \*  
Kinematic viscosity at 40 °C: Non-applicable \*  
Concentration: Non-applicable \*  
pH: Non-applicable \*  
Vapour density at 20 °C: Non-applicable \*  
Partition coefficient n-octanol/water 20 °C: Non-applicable \*  
Solubility in water at 20 °C: Non-applicable \*  
Solubility properties: Non-applicable \*

\*Not relevant due to the nature of the product, not providing information property of its hazards.

- CONTINUED ON NEXT PAGE -



## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

|                               |                                        |
|-------------------------------|----------------------------------------|
| Decomposition temperature:    | Non-applicable *                       |
| Melting point/freezing point: | Non-applicable *                       |
| Explosive properties:         | Non-applicable *                       |
| Oxidising properties:         | Non-applicable *                       |
| <b>Flammability:</b>          |                                        |
| Flash Point:                  | ≥200 °C (Does not maintain combustion) |
| Flammability (solid, gas):    | Non-applicable *                       |
| Autoignition temperature:     | Non-applicable *                       |
| Lower flammability limit:     | Non-applicable *                       |
| Upper flammability limit:     | Non-applicable *                       |

### 9.2 Other information:

|                           |                  |
|---------------------------|------------------|
| Surface tension at 20 °C: | Non-applicable * |
| Refraction index:         | Non-applicable * |

\*Not relevant due to the nature of the product, not providing information property of its hazards.

## SECTION 10: STABILITY AND REACTIVITY

### 10.1 Reactivity:

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

### 10.2 Chemical stability:

Chemically stable under the conditions of storage, handling and use.

### 10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

### 10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

| Shock and friction | Contact with air | Increase in temperature | Sunlight       | Humidity       |
|--------------------|------------------|-------------------------|----------------|----------------|
| Not applicable     | Not applicable   | Not applicable          | Not applicable | Not applicable |

### 10.5 Incompatible materials:

| Acids              | Water          | Combustive materials | Combustible materials | Others                        |
|--------------------|----------------|----------------------|-----------------------|-------------------------------|
| Avoid strong acids | Not applicable | Not applicable       | Not applicable        | Avoid alkalis or strong bases |

### 10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO<sub>2</sub>), carbon monoxide and other organic compounds.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects:

The experimental information related to the toxicological properties of the product itself is not available

#### Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

A.- Ingestion (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):

- CONTINUED ON NEXT PAGE -



## SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Acute toxicity : Exposure in high concentration can cause a breakdown in the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion, and in serious cases, loss of consciousness.
- Corrosivity/Irritability: Causes irritation in respiratory passages, which is normally reversible and limited to the upper respiratory passages.
- C- Contact with the skin and the eyes (acute effect):
  - Contact with the skin: Produces skin inflammation.
  - Contact with the eyes: Produces eye damage after contact.
- D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
  - Carcinogenicity: Exposure to this product can cause cancer. For more specific information on the possible health effects see section 2.
  - Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
  - Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- E- Sensitizing effects:
  - Respiratory: Prolonged exposure can result in specific respiratory hypersensitivity.
  - Cutaneous: Prolonged contact with the skin can result in episodes of allergic contact dermatitis.
- F- Specific target organ toxicity (STOT) - single exposure:
 

Causes irritation in respiratory passages, which is normally reversible and limited to the upper respiratory passages.
- G- Specific target organ toxicity (STOT)-repeated exposure:
  - Specific target organ toxicity (STOT)-repeated exposure: Exposure in high concentration can cause a breakdown in the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion, and in serious cases, loss of consciousness.
  - Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- H- Aspiration hazard:
 

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

### Other information:

Non-applicable

### Specific toxicology information on the substances:

| Identification                                                                                      | Acute toxicity  |                      | Genus  |
|-----------------------------------------------------------------------------------------------------|-----------------|----------------------|--------|
|                                                                                                     |                 |                      |        |
| 4,4'-methylenediphenyl diisocyanate<br>CAS: 101-68-8<br>EC: 202-966-0                               | LD50 oral       | 7616 mg/kg           | Rat    |
|                                                                                                     | LD50 dermal     | 10000 mg/kg (ATEi)   | Rabbit |
|                                                                                                     | LC50 inhalation | 11 mg/L (4 h) (ATEi) |        |
| 4,4'-methylenediphenyl diisocyanate, isomers and homologues<br>CAS: 9016-87-9<br>EC: Non-applicable | LD50 oral       | Non-applicable       |        |
|                                                                                                     | LD50 dermal     | Non-applicable       |        |
|                                                                                                     | LC50 inhalation | 11 mg/L (4 h) (ATEi) |        |

## SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

### 12.1 Toxicity:

| Identification                                                        | Acute toxicity |                  | Species           | Genus |
|-----------------------------------------------------------------------|----------------|------------------|-------------------|-------|
|                                                                       |                |                  |                   |       |
| 4,4'-methylenediphenyl diisocyanate<br>CAS: 101-68-8<br>EC: 202-966-0 | LC50           | 1000 mg/L (96 h) | Brachydanio rerio | Fish  |
|                                                                       | EC50           | Non-applicable   |                   |       |
|                                                                       | EC50           | Non-applicable   |                   |       |

### 12.2 Persistence and degradability:

Not available

### 12.3 Bioaccumulative potential:

- CONTINUED ON NEXT PAGE -



## SECTION 12: ECOLOGICAL INFORMATION (continued)

| Identification                      | Bioaccumulation potential |      |
|-------------------------------------|---------------------------|------|
| 4,4'-methylenediphenyl diisocyanate | BCF                       | 150  |
| CAS: 101-68-8                       | Pow Log                   | 4.51 |
| EC: 202-966-0                       | Potential                 | High |

### 12.4 Mobility in soil:

| Identification                      | Absorption/desorption |                          | Volatility |                |
|-------------------------------------|-----------------------|--------------------------|------------|----------------|
| 4,4'-methylenediphenyl diisocyanate | Koc                   | Non-applicable           | Henry      | Non-applicable |
| CAS: 101-68-8                       | Conclusion            | Non-applicable           | Dry soil   | Non-applicable |
| EC: 202-966-0                       | Surface tension       | 2,068E-2 N/m (283,45 °C) | Moist soil | Non-applicable |

### 12.5 Results of PBT and vPvB assessment:

Non-applicable

### 12.6 Other adverse effects:

Not described

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods:

| Code      | Description                                                                            | Waste class (Regulation (EU) No 1357/2014) |
|-----------|----------------------------------------------------------------------------------------|--------------------------------------------|
| 08 04 09* | Waste adhesives and sealants containing organic solvents or other dangerous substances | Dangerous                                  |

#### Type of waste (Regulation (EU) No 1357/2014):

HP4 Irritant — skin irritation and eye damage, HP5 Specific Target Organ Toxicity (STOT)/Aspiration Toxicity, HP6 Acute Toxicity, HP13 Sensitising, HP7 Carcinogenic

#### Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations in accordance with Annex 1 and Annex 2 (Directive 2008/98/EC). As under 15 01 (2014/955/EC) of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See paragraph 6.2.

#### Regulations related to waste management:

In accordance with Annex II of Regulation (EC) n°1907/2006 (REACH) the community or state provisions related to waste management are stated

Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014

## SECTION 14: TRANSPORT INFORMATION

This product is not regulated for transport (ADR/RID,IMDG,IATA)

## SECTION 15: REGULATORY INFORMATION

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

Candidate substances for authorisation under the Regulation (EC) 1907/2006 (REACH): Non-applicable

Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Non-applicable

Regulation (EC) 1005/2009, about substances that deplete the ozone layer: Non-applicable

Article 95, REGULATION (EU) No 528/2012: Non-applicable

REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: Non-applicable

**Limitations to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII REACH, etc ....):**

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## SECTION 15: REGULATORY INFORMATION (continued)

Contains more than 0.1 % of 4,4'-methylenediphenyl diisocyanate, isomers and homologues, 4,4'-methylenediphenyl diisocyanate by weight. This product may not be distributed in its present form for first-time sale to the general public after 27th December 2010 unless the packaging contains protective gloves meeting the provisions of European Council Directive 89/686/CEE.

### Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

### Other legislation:

The product could be affected by sectorial legislation

### 15.2 Chemical safety assessment:

The supplier has not carried out evaluation of chemical safety.

## SECTION 16: OTHER INFORMATION

### Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with ANNEX II-Guide to the compilation of safety data sheets of Regulation (EC) N° 1907/2006 (Regulation (EC) N° 2015/830)

### Modifications related to the previous Safety Data Sheet which concerns the ways of managing risks.:

Non-applicable

### Texts of the legislative phrases mentioned in section 2:

H332: Harmful if inhaled

H315: Causes skin irritation

H319: Causes serious eye irritation

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

H317: May cause an allergic skin reaction

H351: Suspected of causing cancer

H335: May cause respiratory irritation

H373: May cause damage to organs through prolonged or repeated exposure (Inhalation)

### Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

### CLP Regulation (EC) n° 1272/2008:

Acute Tox. 4: H332 - Harmful if inhaled

Carc. 2: H351 - Suspected of causing cancer

Eye Irrit. 2: H319 - Causes serious eye irritation

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

Skin Irrit. 2: H315 - Causes skin irritation

Skin Sens. 1: H317 - May cause an allergic skin reaction

STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure

STOT SE 3: H335 - May cause respiratory irritation

### Classification procedure:

Acute Tox. 4: Calculation method

Skin Irrit. 2: Calculation method

Eye Irrit. 2: Calculation method

Resp. Sens. 1: Calculation method

Skin Sens. 1: Calculation method

Carc. 2: Calculation method

STOT SE 3: Calculation method

STOT RE 2: Calculation method

### Advice related to training:

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

### Principal bibliographical sources:

<http://esis.jrc.ec.europa.eu>

<http://echa.europa.eu>

<http://eur-lex.europa.eu>

### Abbreviations and acronyms:



**MORCEM DRY PU (COMP. B)**



**SECTION 16: OTHER INFORMATION (continued)**

ADR: European agreement concerning the international carriage of dangerous goods by road  
IMDG: International maritime dangerous goods code  
IATA: International Air Transport Association  
ICAO: International Civil Aviation Organisation  
COD: Chemical Oxygen Demand  
BOD5: 5-day biochemical oxygen demand  
BCF: Bioconcentration factor  
LD50: Lethal Dose 50  
LC50: Lethal Concentration 50  
EC50: Effective concentration 50  
Log-POW: Octanol–water partition coefficient  
Koc: Partition coefficient of organic carbon

The information contained in this safety data sheet is based on sources, technical knowledge and current legislation at European and state level, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

- END OF SAFETY DATA SHEET -