According to 1907/2006/EC (REACH), 2015/830/EU



MORAVIA - MORAFLEX 111 HARDENER (COMPONENT B) MC43-0111B

Safety data sheet

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

1.1 Product identifier: MORAVIA - MORAFLEX 111 HARDENER (COMPONENT B)

MC43-0111B

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

Relevant uses: Hardener for coatings. 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:

MORAVÍA BOYA VE KÍMYA SAN.TÍC.LTD.STÍ

FEVZİ ÇAKMAK CADDESİ NO:2 SEFAKÖY/ KÜÇÜKÇEKMECE

İSTANBUL - TURKEY

Phone.: +90 212 579 13 36 - Fax: +90 212 426 55 12

moravia@moravia.com.tr www.moravia.com.tr

Emergency telephone number:

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, 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:

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

Precautionary statements:

P201: Obtain special instructions before use

P280: Wear protective gloves/protective clothing/eye protection/face protection

P302+P352: IF ON SKIN: Wash with plenty of water

P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsina

P308+P313: IF exposed or concerned: Get medical advice/attention

P342+P311: If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician

P501: Dispose of contents/container in accordance with regulations on hazardous waste or packaging and packaging waste respectively

Supplementary information:

EUH204: Contains isocyanates. May produce an allergic reaction

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SECTION 2: HAZARDS IDENTIFICATION (continued)

Substances that contribute to the classification

4,4'-methylenediphenyl diisocyanate; Methylenediphenyl diisocyanate; 4,4'-methylenediphenyl diisocyanate, isomers and homologues

2.3 Other hazards:

Product fails to meet PBT/vPvB criteria

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance:

Non-applicable

3.2 Mixture:

Chemical description: Miscellaneous products

Components:

In accordance with Annex II of Regulation (EC) No 1907/2006 (point 3), the product contains:

| | Identification | | Chemical name/Classification | Concentration |
|--|----------------------|--|--|---------------|
| CAS: | 101-68-8 | 4,4'-methylenediphe | enyl diisocyanate ⁽¹⁾ ATP CLP00 | |
| EC: 202-966-0 Index: 615-005-00-9 REACH: 01-2119457014-47- XXXX | Regulation 1272/2008 | 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 | 25 - <50 % | |
| CAS: | | Methylenediphenyl d | iisocyanate ⁽¹⁾ ATP ATP0 | |
| EC: 247-714-0 Index: 615-005-00-9 REACH: 01-2119457015-45- XXXX | Regulation 1272/2008 | 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 | 25 - <50 % | |
| | | 4,4'-methylenediphe | enyl diisocyanate, isomers and homologues(1) ATP ATP0 | |
| Index: | EC: Non-applicable | Regulation 1272/2008 | 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 | 10 - <25 % |

⁽¹⁾ Substances presenting a health or environmental hazard which meet criteria laid down in Regulation (EU) No. 2015/830

To obtain more information on the hazards of the substances consult sections 11, 12 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, in which case 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.

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SECTION 4: FIRST AID MEASURES (continued)

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, handling and use. In the case of combustion as a result of improper handling, 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 full jet 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 self-contained breathing apparatus (SCBA). 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. Eliminate all sources of ignition. In case of fire, cool the storage containers and tanks for products susceptible to combustion, 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 ground 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, handling 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.

 $\hbox{C.-}$ 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:

- CONTINUED ON NEXT PAGE -

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SECTION 7: HANDLING AND STORAGE (continued)

A.- Technical measures for storage

Minimum Temp.: 5 °C

Maximum Temp.: 30 °C

Maximum time: 6 Months

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 workplace

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

DNEL (Workers):

| | | Short e | xposure | Long exposure | |
|--|------------|----------------|-----------------------|------------------------|------------------------|
| Identification | | Systemic | Local | Systemic | Local |
| 4,4´-methylenediphenyl diisocyanate Oral | | Non-applicable | Non-applicable | Non-applicable | Non-applicable |
| CAS: 101-68-8 | Dermal | 50 mg/kg | Non-applicable | Non-applicable | Non-applicable |
| EC: 202-966-0 | Inhalation | 0,1 mg/m³ | 0,1 mg/m ³ | 0,05 mg/m ³ | 0,05 mg/m ³ |
| Methylenediphenyl diisocyanate | Oral | Non-applicable | Non-applicable | Non-applicable | Non-applicable |
| CAS: 26447-40-5 | Dermal | 50 mg/kg | Non-applicable | Non-applicable | Non-applicable |
| EC: 247-714-0 | Inhalation | 0,1 mg/m³ | 0,1 mg/m ³ | 0,05 mg/m ³ | 0,05 mg/m ³ |

DNEL (General population):

| | | Short e | xposure | Long exposure | |
|---|------------|------------------------|------------------------|-------------------------|-------------------------|
| Identification | | Systemic | Local | Systemic | Local |
| 4,4 '-methylenediphenyl diisocyanate Oral | | 20 mg/kg | Non-applicable | Non-applicable | Non-applicable |
| CAS: 101-68-8 | Dermal | 25 mg/kg | Non-applicable | Non-applicable | Non-applicable |
| EC: 202-966-0 | Inhalation | 0,05 mg/m ³ | 0,05 mg/m ³ | 0,025 mg/m ³ | 0,025 mg/m ³ |
| Methylenediphenyl diisocyanate | Oral | 20 mg/kg | Non-applicable | Non-applicable | Non-applicable |
| CAS: 26447-40-5 | Dermal | 25 mg/kg | Non-applicable | Non-applicable | Non-applicable |
| EC: 247-714-0 | Inhalation | 0,05 mg/m ³ | 0,05 mg/m ³ | 0,025 mg/m ³ | 0,025 mg/m ³ |

PNEC:

| Identification | | | | |
|-------------------------------------|--------------|----------------|-------------------------|----------------|
| 4,4´-methylenediphenyl diisocyanate | STP | 1 mg/L | Fresh water | 1 mg/L |
| CAS: 101-68-8 | Soil | 1 mg/kg | Marine water | 0,1 mg/L |
| EC: 202-966-0 | Intermittent | 10 mg/L | Sediment (Fresh water) | Non-applicable |
| | Oral | Non-applicable | Sediment (Marine water) | Non-applicable |
| Methylenediphenyl diisocyanate | STP | 1 mg/L | Fresh water | 1 mg/L |
| CAS: 26447-40-5 | Soil | 1 mg/kg | Marine water | 0,1 mg/L |
| EC: 247-714-0 | 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 occupational exposure limits. In case of using personal protective equipment it should have CE marking in accordance with Directive 2016/425/EC. For more information on Personal Protective 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.

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

B.- Respiratory protection

| Pictogram | PPE | Labelling | CEN Standard | Remarks |
|--|-----------------------------------|-----------|---------------------|--|
| Mandatory respiratory tract protection | Filter mask for gases and vapours | CAT III | 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 |
|---------------------------|---|-----------|---|--|
| Mandatory hand protection | NON-disposable chemical protective gloves | CAT III | EN ISO 374-1:2016 EN 16523-1:2015 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. |

[&]quot;As the product is a mixture of several substances, the resistance of the glove material can not be predicted 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 |
|---------------------------|-------------|-----------|---|---|
| Mandatory face protection | Face shield | CATII | EN 166:2001 EN 167:2001 EN 168:2001 EN ISO 4007:2018 | Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing. |

E.- Body protection

| Pictogram | PPE | Labelling | CEN Standard | Remarks |
|------------------------------------|--|-----------|--|---|
| Mandatory complete body protection | Disposable clothing for protection against chemical risks | CAT III | EN 13034:2005+A1:2009 EN 168:2001 EN ISO 13982- 1:2004/A1:2010 EN ISO 6529:2013 EN ISO 6530:2005 EN 464:1994 | For professional use only. Clean periodically according to the manufacturer's instructions. |
| Mandatory foot protection | Safety footwear for protection against chemical risk | CAT III | EN ISO 20345:2011 EN 13832-1:2019 | Replace boots at any sign of deterioration. |

F.- Additional emergency measures

| Emergency measure | Standards | Emergency measure | Standards |
|-------------------|---|-------------------|--|
| = | ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011 | 6 + | DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011 |
| Emergency shower | | Eyewash stations | |

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

Volatile organic compounds:

With regard to Directive 2010/75/EU, this product has the following characteristics:

V.O.C. (Supply): 0 % weight
V.O.C. density at 20 °C: 0 kg/m³ (0 g/L)
Average carbon number: Non-applicable
Average molecular weight: Non-applicable

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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:

Appearance:

Not available

Colour:

Not available

Odour:

Not available

Not available

Nour available

Non-applicable *

Volatility:

Boiling point at atmospheric pressure:

Vapour pressure at 20 °C:

Vapour pressure at 50 °C:

Vapour pressure at 50 °C:

Vapour pressure at 20 °C:

Non-applicable *

Non-applicable *

Non-applicable *

Product description:

Density at 20 °C: 1230 kg/m³
Relative density at 20 °C: 1,23

Dynamic viscosity at 20 °C: 27 cP

Kinematic viscosity at 20 °C: 20,81 cSt

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 * Decomposition temperature: Non-applicable * Melting point/freezing point: Non-applicable * Explosive properties: Non-applicable * Oxidising properties: Non-applicable *

Flammability:

Flash Point: Non Flammable (>60 °C)

Flammability (solid, gas):

Autoignition temperature:

Lower flammability limit:

Upper flammability limit:

Non-applicable *

Non-applicable *

Explosive:

Lower explosive limit: Non-applicable * Upper explosive limit: Non-applicable *

9.2 Other information:

Surface tension at 20 °C:

Refraction index:

Non-applicable *

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:

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SECTION 10: STABILITY AND REACTIVITY (continued)

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 | Acids Water | | 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 (CO2), 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 the recommended occupational exposure limits, adverse effects on health may result, 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):
 - Acute toxicity: Exposure in high concentration can interfere with 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.
 - IARC: 4,4'-methylenediphenyl diisocyanate (3); 4,4'-methylenediphenyl diisocyanate, isomers and homologues (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: 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:



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SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Specific target organ toxicity (STOT)-repeated exposure: Exposure in high concentration can interfere with 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 | Ad | Acute toxicity | |
|--|-----------------|----------------------|--------|
| 4,4´-methylenediphenyl diisocyanate | LD50 oral | 7616 mg/kg | Rat |
| CAS: 101-68-8 | LD50 dermal | 10000 mg/kg (ATEi) | Rabbit |
| EC: 202-966-0 | LC50 inhalation | 11 mg/L (4 h) (ATEi) | |
| Methylenediphenyl diisocyanate | LD50 oral | 5100 mg/kg | Rat |
| CAS: 26447-40-5 | LD50 dermal | 5100 mg/kg (ATEi) | Rabbit |
| EC: 247-714-0 | LC50 inhalation | 11 mg/L (4 h) (ATEi) | |
| 4,4 '-methylenediphenyl diisocyanate, isomers and homologues | LD50 oral | Non-applicable | |
| CAS: 9016-87-9 | LD50 dermal | Non-applicable | |
| EC: 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 | LC50 | 1000 mg/L (96 h) | Brachydanio rerio | Fish |
| CAS: 101-68-8 | EC50 | Non-applicable | | |
| EC: 202-966-0 | EC50 | Non-applicable | | |

12.2 Persistence and degradability:

Not available

12.3 Bioaccumulative potential:

| 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:

Product fails to meet PBT/vPvB criteria

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

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SECTION 13: DISPOSAL CONSIDERATIONS (continued)

| Code | Description | Waste class (Regulation (EU) No 1357/2014) |
|-----------|---|---|
| 08 01 11* | waste paint and varnish containing organic solvents or other hazardous substances | Dangerous |

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

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

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) No 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

Transport of dangerous goods by land:

With regard to ADR 2019 and RID 2019:

14.1 UN number: Non-applicable 14.2 UN proper shipping name: Non-applicable 14.3 Transport hazard class(es): Non-applicable Non-applicable 14.4 Packing group: Non-applicable

14.5 Environmental hazards:

14.6 Special precautions for user

Special regulations: Non-applicable Tunnel restriction code: Non-applicable Physico-Chemical properties: see section 9 Limited quantities: Non-applicable 14.7 Transport in bulk according Non-applicable

to Annex II of Marpol and

the IBC Code:

Transport of dangerous goods by sea:

With regard to IMDG 39-18:

14.1 UN number: Non-applicable 14.2 UN proper shipping name: Non-applicable 14.3 Transport hazard class(es): Non-applicable Labels: Non-applicable 14.4 Packing group: Non-applicable

14.5 Environmental hazards:

14.6 Special precautions for user

Special regulations: Non-applicable

EmS Codes:

Physico-Chemical properties: see section 9 Limited quantities: Non-applicable Segregation group: Non-applicable Non-applicable

14.7 Transport in bulk according to Annex II of Marpol and

the IBC Code:

Transport of dangerous goods by air:

With regard to IATA/ICAO 2020:



Safety data sheet According to 1907/2006/EC (REACH), 2015/830/EU

MORAVIA - MORAFLEX 111 HARDENER (COMPONENT B) MC43-0111B

SECTION 14: TRANSPORT INFORMATION (continued)

14.1 UN number: Non-applicable
 14.2 UN proper shipping name: Non-applicable
 14.3 Transport hazard class(es): Non-applicable
 Labels: Non-applicable
 14.4 Packing group: Non-applicable

14.5 Environmental hazards: No

14.6 Special precautions for user

Physico-Chemical properties: see section 9 **14.7 Transport in bulk according** Non-applicable

to Annex II of Marpol and

the IBC Code:

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) No 1907/2006 (REACH): Non-applicable

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

Regulation (EC) No 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

Seveso III:

Non-applicable

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

Contains more than 0.1 % of Methylenediphenyl diisocyanate, 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.

Shall not be used in:

- —ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays.
- -tricks and jokes,
- —games for one or more participants, or any article intended to be used as such, even with ornamental aspects.

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as a basis for conducting workplace-specific risk assessments in order to establish the necessary risk prevention measures for the handling, 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) No 1907/2006 (Regulation (EC) No 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:



According to 1907/2006/EC (REACH), 2015/830/EU

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SECTION 16: OTHER INFORMATION (continued)

H315: Causes skin 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

H332: Harmful if inhaled

H319: Causes serious eye irritation

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) No 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:

Skin 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 Acute Tox. 4: Calculation method Eye Irrit. 2: Calculation method

Advice related to training:

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

Principal bibliographical sources:

http://echa.europa.eu http://eur-lex.europa.eu

Abbreviations and acronyms:

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
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