

BK-SuperFlex PU light**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

- 1.1 Product identifier:** BK-SuperFlex PU light
Other means of identification:
Non-applicable
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**
Relevant uses: Sealant
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:**
Banja Komerc Bekament d.o.o.
Kralja Petra Prvog 132
34304 Arandjelovac - Serbia
tel. +381 (0) 34 6777 500
e-mail: laboratorija@bekament.com
http://bekament.com
- 1.4 Emergency telephone number:** 911

SECTION 2: HAZARDS IDENTIFICATION








- 2.1 Classification of the substance or mixture:**
CLP Regulation (EC) No 1272/2008:
The product is not classified as hazardous according to CLP Regulation (EC) No 1272/2008.
- 2.2 Label elements:**
CLP Regulation (EC) No 1272/2008:
Hazard statements:
Non-applicable
Precautionary statements:
Non-applicable
Supplementary information:
EUH204: Contains isocyanates. May produce an allergic reaction.
EUH208: Contains Reaction mass of Bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and Methyl 1,2,2,6,6-pentamethyl-4-piperidyl sebacate. May produce an allergic reaction.
EUH210: Safety data sheet available on request.
EUH212: Warning! Hazardous respirable dust may be formed when used. Do not breathe dust.
Additional Labelling:
Persons already sensitised to diisocyanates may develop allergic reactions when using this product.
Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product.
This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used.
As from 24 August 2023 adequate training is required before industrial or professional use.
- 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: Polyurethane resin
Components:
In accordance with Annex II of Regulation (EC) No 1907/2006 (point 3), the product contains:

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

| Identification | Chemical name/Classification | Concentration |
|---|--|--|
| CAS: 1330-20-7 EC: 215-535-7 Index: 601-022-00-9 REACH: 01-2119488216-32-XXXX | Xylene⁽¹⁾ Regulation 1272/2008 | ATP CLP00 Acute Tox. 4: H312+H332; Flam. Liq. 3: H226; Skin Irrit. 2: H315 - Warning   |
| | | 5 - <10 % |
| CAS: 13463-67-7 EC: 236-675-5 Index: Non-applicable REACH: 01-2119489379-17-XXXX | Titanium dioxide (aerodynamic diameter ≤ 10 µm)⁽¹⁾ Regulation 1272/2008 | Self-classified Carc. 2: H351 - Warning  |
| | | 1 - <5 % |
| CAS: 101-68-8 EC: 202-966-0 Index: 615-005-00-9 REACH: 01-2119457014-47-XXXX | 4,4'-methylenediphenyl diisocyanate⁽¹⁾ Regulation 1272/2008 | ATP CLP00 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   |
| | | 0.01 - <0.1 % |
| CAS: 26471-62-5 EC: 247-722-4 Index: 615-006-00-4 REACH: 01-2119454791-34-XXXX | Toluene Diisocyanate⁽¹⁾ Regulation 1272/2008 | ATP CLP00 Acute Tox. 2: H330; Aquatic Chronic 3: H412; Carc. 2: H351; Eye Irrit. 2: H319; Resp. Sens. 1: H334; Skin Irrit. 2: H315; Skin Sens. 1: H317; STOT SE 3: H335 - Danger   |
| | | 0.01 - <0.1 % |

⁽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:

This product is not classified as hazardous through inhalation. However, in case of intoxication symptoms it is recommended to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:

This product is not classified as hazardous when in contact with the skin. However, in case of skin contact it is recommended to remove contaminated clothes and shoes, rinse the skin or if necessary shower the affected person thoroughly with cold water and neutral soap. In case of serious reaction consult a doctor.

By eye contact:

Rinse eyes thoroughly with water for at least 15 minutes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, in which case removal could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS for 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:

Suitable extinguishing media:

Product is non-flammable under normal conditions of storage, manipulation and use, but the product contains flammable substances. 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.

Unsuitable extinguishing media:

IT IS RECOMMENDED NOT to use full jet water as an extinguishing agent.

5.2 Special hazards arising from the substance or mixture:

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BK-SuperFlex PU light**SECTION 5: FIREFIGHTING MEASURES (continued)**

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:****For non-emergency personnel:**

Sweep up and shovel product or collect by other means and place in container for reuse (preferred) or disposal

For emergency responders:

See section 8.

6.2 Environmental precautions:

Avoid spillage into the aquatic environment as it contains substances potentially dangerous for this. Contain the product absorbed in hermetically sealed containers. In the case of serious spillage into the aquatic environment notify the relevant authority.

6.3 Methods and material for containment and cleaning up:

It is recommended:

Sweep up and shovel product or collect by other means and place in container for reuse (preferred) or disposal

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

Due to its inflammable nature, the product does not present a fire risk under normal conditions of storage, handling and use.

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

Sweep up and shovel product or collect by other means and place in container for reuse (preferred) or disposal See sections 8 and 13.

7.2 Conditions for safe storage, including any incompatibilities:**A.- Technical measures for storage**

Minimum Temp.: 5 °C

Maximum Temp.: 30 °C

Maximum time: 12 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):

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SECTION 7: HANDLING AND STORAGE (continued)

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 (European OEL, not country-specific legislation):

Directive (EU) 2000/39, Directive 2004/37/EC, Directive (EU) 2006/15, Directive (EU) 2009/161, Directive (EU) 2017/164, Directive (EU) 2019/1831:

| Identification | | Occupational exposure limits | |
|--|--------------|------------------------------|-----------------------|
| Xylene CAS: 1330-20-7 EC: 215-535-7 | IOELV (8h) | 50 ppm | 221 mg/m ³ |
| | IOELV (STEL) | 100 ppm | 442 mg/m ³ |

Nuisance dust: Inhalable dust 10 mg/m³ // Respirable dust 4 mg/m³

DNEL (Workers):

| Identification | | Short exposure | | Long exposure | |
|---|------------|-----------------------|-----------------------|-----------------------|------------------------|
| | | Systemic | Local | Systemic | Local |
| Xylene CAS: 1330-20-7 EC: 215-535-7 | Oral | Non-applicable | Non-applicable | Non-applicable | Non-applicable |
| | Dermal | Non-applicable | Non-applicable | 212 mg/kg | Non-applicable |
| | Inhalation | 442 mg/m ³ | 442 mg/m ³ | 221 mg/m ³ | 221 mg/m ³ |
| 4,4'-methylenediphenyl diisocyanate CAS: 101-68-8 EC: 202-966-0 | Oral | Non-applicable | Non-applicable | Non-applicable | Non-applicable |
| | Dermal | Non-applicable | Non-applicable | Non-applicable | Non-applicable |
| | Inhalation | Non-applicable | 0,1 mg/m ³ | Non-applicable | 0,05 mg/m ³ |

DNEL (General population):

| Identification | | Short exposure | | Long exposure | |
|---|------------|-----------------------|------------------------|------------------------|-------------------------|
| | | Systemic | Local | Systemic | Local |
| Xylene CAS: 1330-20-7 EC: 215-535-7 | Oral | Non-applicable | Non-applicable | 12,5 mg/kg | Non-applicable |
| | Dermal | Non-applicable | Non-applicable | 125 mg/kg | Non-applicable |
| | Inhalation | 260 mg/m ³ | 260 mg/m ³ | 65,3 mg/m ³ | 65,3 mg/m ³ |
| 4,4'-methylenediphenyl diisocyanate CAS: 101-68-8 EC: 202-966-0 | Oral | Non-applicable | Non-applicable | Non-applicable | Non-applicable |
| | Dermal | Non-applicable | Non-applicable | Non-applicable | Non-applicable |
| | Inhalation | Non-applicable | 0,05 mg/m ³ | Non-applicable | 0,025 mg/m ³ |

PNEC:

| Identification | | | | | |
|---|--------------|----------------|-------------------------|----------------|--|
| Xylene CAS: 1330-20-7 EC: 215-535-7 | STP | 6,58 mg/L | Fresh water | 0,327 mg/L | |
| | Soil | 2,31 mg/kg | Marine water | 0,327 mg/L | |
| | Intermittent | 0,327 mg/L | Sediment (Fresh water) | 12,46 mg/kg | |
| | Oral | Non-applicable | Sediment (Marine water) | 12,46 mg/kg | |
| 4,4'-methylenediphenyl diisocyanate CAS: 101-68-8 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 | |
| Toluene Diisocyanate CAS: 26471-62-5 EC: 247-722-4 | STP | 1 mg/L | Fresh water | 0,013 mg/L | |
| | Soil | 1 mg/kg | Marine water | 0,001 mg/L | |
| | Intermittent | 0,125 mg/L | Sediment (Fresh water) | Non-applicable | |
| | Oral | Non-applicable | Sediment (Marine water) | Non-applicable | |

8.2 Exposure controls:

A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protective Equipment, with the corresponding <<CE marking>> in accordance with Regulation (EU) 2016/425. For more information on Personal Protective 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.

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

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 |
|--|---------------------------------------|---|--------------|--|
|  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 420:2004+A1:2010 and EN ISO 374-1:2016+A1:2018 |

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 |
|--|---|---|---------------------------------|---|
|  Mandatory face protection | Panoramic glasses against splash/projections. |  | EN 166:2002 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 |
|-----------|----------------------|---|-------------------|---|
| | 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 6529:2013, 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 20345:2012 y EN 13832-1:2007 |

F.- Additional emergency measures

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

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): | 9,99 % weight |
| V.O.C. density at 20 °C: | 109,33 kg/m ³ (109,33 g/L) |
| Average carbon number: | 8 |
| Average molecular weight: | 106,2 g/mol |

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: Solid

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

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

| | |
|------------------|------------------|
| Appearance: | Not available |
| Colour: | Not available |
| Odour: | Not available |
| Odour threshold: | Non-applicable * |

Volatility:

| | |
|--|------------------|
| Boiling point at atmospheric pressure: | Non-applicable * |
| 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: | 1094,4 kg/m ³ |
| Relative density at 20 °C: | 1,094 |
| Dynamic viscosity at 20 °C: | Non-applicable * |
| 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 * |
| Decomposition temperature: | Non-applicable * |
| Melting point/freezing point: | Non-applicable * |

Flammability:

| | |
|----------------------------|------------------|
| Flash Point: | Non-applicable |
| Flammability (solid, gas): | Non-applicable * |
| Autoignition temperature: | 465 °C |
| Lower flammability limit: | Non-applicable * |
| Upper flammability limit: | Non-applicable * |

Explosive (Solid):

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

Particle characteristics:

| | |
|-----------------------------|------------------|
| Median equivalent diameter: | Non-applicable * |
|-----------------------------|------------------|

9.2 Other information:

Information with regard to physical hazard classes:

| | |
|--|------------------|
| Explosive properties: | Non-applicable * |
| Oxidising properties: | Non-applicable * |
| Corrosive to metals: | Non-applicable * |
| Heat of combustion: | Non-applicable * |
| Aerosols-total percentage (by mass) of flammable components: | Non-applicable * |

Other safety characteristics:

| | |
|---------------------------|------------------|
| 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.

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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 | Avoid direct impact | Precaution | Avoid direct impact |

10.5 Incompatible materials:

| Acids | Water | Oxidising materials | Combustible materials | Others |
|------------|---------------------|---------------------|-----------------------|--|
| Precaution | Avoid direct impact | Avoid direct impact | Not applicable | Avoid alkalines, heavy metals, reducing agents, peroxide accelerating agents |

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: Based on available data, the classification criteria are not met. However, it does 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. However, it contains substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met. However, it contains substances classified as dangerous for inhalation. 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. However, it contains 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. However, it does 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. However, it contains substances classified as dangerous with carcinogenic effects. For more information see section 3.
IARC: Xylene (3); 4,4'-methylenediphenyl diisocyanate (3); Toluene Diisocyanate (2B); Titanium dioxide (aerodynamic diameter ≤ 10 μm) (2B)
- 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:

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SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Respiratory: Based on available data, the classification criteria are not met. However, it contains substances classified as dangerous with sensitising effects. For more information see section 3.

- Cutaneous: Based on available data, the classification criteria are not met. However, it contains substances classified as dangerous with sensitising effects. For more information see section 3.

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

Based on available data, the classification criteria are not met. However, it contains substances classified as dangerous for inhalation. For more information see section 3.

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

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met. However, it does contain substances which are classified as dangerous due to repetitive exposure. 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 |
|---|-----------------|-------------------|--------|
| Xylene CAS: 1330-20-7 EC: 215-535-7 | LD50 oral | 3523 mg/kg | Rat |
| | LD50 dermal | 1100 mg/kg (ATEi) | |
| | LC50 inhalation | 1,5 mg/L (ATEi) | |
| Titanium dioxide (aerodynamic diameter ≤ 10 µm) CAS: 13463-67-7 EC: 236-675-5 | LD50 oral | 10000 mg/kg | Rat |
| | LD50 dermal | 10000 mg/kg | Rabbit |
| | LC50 inhalation | Non-applicable | |
| Toluene Diisocyanate CAS: 26471-62-5 EC: 247-722-4 | LD50 oral | 3360 mg/kg | Rat |
| | LD50 dermal | Non-applicable | |
| | LC50 inhalation | 0,05 mg/L (ATEi) | |
| 4,4'-methylenediphenyl diisocyanate CAS: 101-68-8 EC: 202-966-0 | LD50 oral | 7616 mg/kg | Rat |
| | LD50 dermal | 10000 mg/kg | Rabbit |
| | LC50 inhalation | Non-applicable | |

SECTION 12: ECOLOGICAL INFORMATION

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

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SECTION 12: ECOLOGICAL INFORMATION (continued)

12.1 Toxicity:

Acute toxicity:

| Identification | Concentration | | Species | Genus |
|---|---------------|------------------|---------------------|------------|
| | LC50 | | | |
| 4,4'-methylenediphenyl diisocyanate CAS: 101-68-8 EC: 202-966-0 | LC50 | 1000 mg/L (96 h) | Brachydanio rerio | Fish |
| | EC50 | Non-applicable | | |
| | EC50 | Non-applicable | | |
| Toluene Diisocyanate CAS: 26471-62-5 EC: 247-722-4 | LC50 | 133 mg/L (96 h) | Oncorhynchus mykiss | Fish |
| | EC50 | 12,5 mg/L (48 h) | Daphnia magna | Crustacean |
| | EC50 | 4300 mg/L (96 h) | Chlorella vulgaris | Algae |

Chronic toxicity:

| Identification | Concentration | | Species | Genus |
|--|---------------|----------------|---------------------|------------|
| | NOEC | | | |
| Xylene CAS: 1330-20-7 EC: 215-535-7 | NOEC | 1,3 mg/L | Oncorhynchus mykiss | Fish |
| | NOEC | 1,17 mg/L | Ceriodaphnia dubia | Crustacean |
| 4,4'-methylenediphenyl diisocyanate CAS: 101-68-8 EC: 202-966-0 | NOEC | Non-applicable | Daphnia magna | Crustacean |
| | NOEC | 10 mg/L | | |
| Toluene Diisocyanate CAS: 26471-62-5 EC: 247-722-4 | NOEC | Non-applicable | Daphnia magna | Crustacean |
| | NOEC | 1,1 mg/L | | |

12.2 Persistence and degradability:

| Identification | Degradability | | Biodegradability | |
|---|---------------|----------------|------------------|----------------|
| | BOD5 | Non-applicable | Concentration | Non-applicable |
| Xylene CAS: 1330-20-7 EC: 215-535-7 | COD | Non-applicable | Period | 28 days |
| | BOD5/COD | Non-applicable | % Biodegradable | 88 % |

12.3 Bioaccumulative potential:

| Identification | Bioaccumulation potential | |
|---|---------------------------|------|
| | BCF | |
| Xylene CAS: 1330-20-7 EC: 215-535-7 | BCF | 9 |
| | Pow Log | 2.77 |
| | Potential | Low |
| 4,4'-methylenediphenyl diisocyanate CAS: 101-68-8 EC: 202-966-0 | BCF | 150 |
| | Pow Log | 4.51 |
| | Potential | High |

12.4 Mobility in soil:

| Identification | Absorption/desorption | | Volatility | |
|---|-----------------------|----------------|------------|-------------------------------|
| | Koc | 202 | Henry | 524,86 Pa·m ³ /mol |
| Xylene CAS: 1330-20-7 EC: 215-535-7 | Conclusion | Moderate | Dry soil | Yes |
| | Surface tension | Non-applicable | Moist soil | Yes |

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SECTION 12: ECOLOGICAL INFORMATION (continued)

| Identification | Absorption/desorption | | Volatility | |
|--|-----------------------|--------------------------|------------|----------------|
| 4,4'-methylenebisphenyl diisocyanate CAS: 101-68-8 EC: 202-966-0 | Koc | Non-applicable | Henry | Non-applicable |
| | Conclusion | Non-applicable | Dry soil | Non-applicable |
| | 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:

| 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 recommend 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

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) 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):

- CONTINUED ON NEXT PAGE -

BK-SuperFlex PU light**SECTION 15: REGULATORY INFORMATION (continued)**

Contains more than 0.1 % of 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 Regulation (EU) 2016/425.

Contains more than 0.1 % of Toluene Diisocyanate, 4,4'-methylenediphenyl diisocyanate by weight. 1. Shall not be used as substances on their own, as a constituent in other substances or in mixtures for industrial and professional use(s) after 24 August 2023, unless:

(a) the concentration of diisocyanates individually and in combination is less than 0,1 % by weight, or (b) the employer or self-employed ensures that industrial or professional user(s) have successfully completed training on the safe use of diisocyanates prior to the use of the substance(s) or mixture(s).

2. Shall not be placed on the market as substances on their own, as a constituent in other substances or in mixtures for industrial and professional use(s) after 24 February 2022, unless:

(a) the concentration of diisocyanates individually and in combination is less than 0,1 % by weight, or (b) the supplier ensures that the recipient of the substance(s) or mixture(s) is provided with information on the requirements referred to in point (b) of paragraph 1 and the following statement is placed on the packaging, in a manner that is visibly distinct from the rest of the label information: "As from 24 August 2023 adequate training is required before industrial or professional use".

3. For the purpose of this entry "industrial and professional user(s)" means any worker or self-employed worker handling diisocyanates on their own, as a constituent in other substances or in mixtures for industrial and professional use(s) or supervising these tasks.

4. The training referred to in point (b) of paragraph 1 shall include the instructions for the control of dermal and inhalation exposure to diisocyanates at the workplace without prejudice to any national occupational exposure limit value or other appropriate risk management measures at national level. Such training shall be conducted by an expert on occupational safety and health with competence acquired by relevant vocational training. That training shall cover as a minimum:

(a) the training elements in point (a) of paragraph 5 for all industrial and professional use(s).

(b) the training elements in points (a) and (b) of paragraph 5 for the following uses:

- handling open mixtures at ambient temperature (including foam tunnels)
- spraying in a ventilated booth
- application by roller
- application by brush
- application by dipping and pouring
- mechanical post treatment (e.g. cutting) of not fully cured articles which are not warm anymore
- cleaning and waste
- any other uses with similar exposure through the dermal and/or inhalation route

(c) the training elements in points (a), (b) and (c) of paragraph 5 for the following uses:

- handling incompletely cured articles (e.g. freshly cured, still warm)
- foundry applications
- maintenance and repair that needs access to equipment
- open handling of warm or hot formulations (> 45 °C)
- spraying in open air, with limited or only natural ventilation (includes large industry working halls) and spraying with high energy (e.g. foams, elastomers)
- and any other uses with similar exposure through the dermal and/or inhalation route.

5. Training elements:

(a) general training, including on-line training, on:

- chemistry of diisocyanates
- toxicity hazards (including acute toxicity)
- exposure to diisocyanates
- occupational exposure limit values
- how sensitisation can develop
- odour as indication of hazard
- importance of volatility for risk
- viscosity, temperature, and molecular weight of diisocyanates
- personal hygiene
- personal protective equipment needed, including practical instructions for its correct use and its limitations
- risk of dermal contact and inhalation exposure
- risk in relation to application process used
- skin and inhalation protection scheme
- ventilation
- cleaning, leakages, maintenance
- discarding empty packaging
- protection of bystanders
- identification of critical handling stages
- specific national code systems (if applicable)
- behaviour-based safety
- certification or documented proof that training has been successfully completed

(b) intermediate level training, including on-line training, on:

**BK-SuperFlex PU light****SECTION 15: REGULATORY INFORMATION (continued)**

- additional behaviour-based aspects
- maintenance
- management of change
- evaluation of existing safety instructions
- risk in relation to application process used
- certification or documented proof that training has been successfully completed

(c) advanced training, including on-line training, on:

- any additional certification needed for the specific uses covered
- spraying outside a spraying booth
- open handling of hot or warm formulations (> 45 °C)
- certification or documented proof that training has been successfully completed

6. The training shall comply with the provisions set by the Member State in which the industrial or professional user(s) operate. Member States may implement or continue to apply their own national requirements for the use of the substance(s) or mixture (s), as long as the minimum requirements set out in paragraphs 4 and 5 are met.

7. The supplier referred to in point (b) of paragraph 2 shall ensure that the recipient is provided with training material and courses pursuant to paragraphs 4 and 5 in the official language(s) of the Member State(s) where the substance(s) or mixture(s) are supplied. The training shall take into consideration the specificity of the products supplied, including composition, packaging, and design.

8. The employer or self-employed shall document the successful completion of the training referred to in paragraphs 4 and 5. The training shall be renewed at least every five years.

9. Member States shall include in their reports pursuant to Article 117(1) the following information:

- (a) any established training requirements and other risk management measures related to the industrial and professional uses of diisocyanates foreseen in national law
- (b) the number of cases of reported and recognised occupational asthma and occupational respiratory and dermal diseases in relation to diisocyanates
- (c) national exposure limits for diisocyanates, if there are any
- (d) information about enforcement activities related to this restriction.

10. This restriction shall apply without prejudice to other Union legislation on the protection of safety and health of workers at the workplace.

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:**

The SDS shall be supplied in an official language of the country where the product is placed on the market. 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 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:

Safety data sheet

This SDS is an English translation of Regulation (EU) n° 2015/830, without any country-specific legislation



BK-SuperFlex PU light

SECTION 16: OTHER INFORMATION (continued)

Acute Tox. 2: H330 - Fatal if inhaled.
Acute Tox. 4: H312+H332 - Harmful in contact with skin or if inhaled.
Acute Tox. 4: H332 - Harmful if inhaled.
Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects.
Carc. 2: H351 - Suspected of causing cancer (Inhalation).
Carc. 2: H351 - Suspected of causing cancer.
Eye Irrit. 2: H319 - Causes serious eye irritation.
Flam. Liq. 3: H226 - Flammable liquid and vapour.
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.

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: 5day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
LC50: Lethal Concentration 50
EC50: Effective concentration 50
LogPOW: Octanolwater partition coefficient
Koc: Partition coefficient of organic carbon
UFI: unique formula identifier
IARC: International Agency for Research on Cancer

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 -