



Safety Data Sheet
according to Regulation (EC)
No. 2015/830

SECTION 1: Identification of the Substance/Mixture and the Company/Undertaking

- | | | | |
|-------------------------------|---------------------------------------|-------------------------|------------|
| 1.1 Product Identifier | PERAN COMFORT/PERAN LXP UV HARDENER B | Revision Date: | 20/09/2018 |
| Product Name: | Peran Comfort/Peran LXP UV Hardener B | Supersedes Date: | 23/02/2018 |
-
- 1.2 Relevant identified uses of the substance or mixture and uses advised against**
- Coatings and paints, thinners, paint removers. Hand-mixing with intimate contact and only PPE available. Wide dispersive indoor use resulting in inclusion into or onto a matrix. For use by appropriately trained applicators. Roller application or brushing. Low energy spreading of coatings. Advised against: Home DIY applications, because of the health hazards and training required.
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- 1.3 Details of the supplier of the safety data sheet**
- Supplier:** Flowcrete UK Ltd.
The Flooring Technology Centre
Booth Lane
Moston, Sandbach, Cheshire. UK
CW11 3QF
- Tel: +44 (0)1270 753000
Fax: +44 (0)1270 753333
ehs.uk@flowcrete.com
<http://www.flowcrete.co.uk>
- Datasheet Produced by:** ehs.uk@flowcrete.com
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- 1.4 Emergency telephone number:** CHEMTREC +001 703 5273887 (Outside US)
CHEMTREC 1-800-424-9300 (Inside US)

SECTION 2: Hazard Identification

2.1 Classification of the substance or mixture

Classification according to Classification, Labeling & Packaging Regulation (EC) 1272/2008

HAZARD STATEMENTS

| | |
|--|--------|
| Other EU extensions | EUH204 |
| Skin Sensitizer, category 1 | H317 |
| Acute Toxicity, Inhalation, category 4 | H332 |
| STOT, single exposure, category 3, RTI | H335 |

2.2 Label elements

Symbol(s) of Product



Signal Word

Warning

Named Chemicals on Label

Hexamethylene diisocyanate, Hexamethylene 1,6-diisocyanate, oligomerisation product (isocyanurate type)

HAZARD STATEMENTS

| | | |
|--|--------|---|
| Other EU extensions | EUH204 | Contains isocyanates. May produce an allergic reaction. |
| Skin Sensitizer, category 1 | H317 | May cause an allergic skin reaction. |
| Acute Toxicity, Inhalation, category 4 | H332 | Harmful if inhaled. |
| STOT, single exposure, category 3, RTI | H335 | May cause respiratory irritation. |

PRECAUTION PHRASES

| | |
|----------|--|
| P261 | Avoid breathing dust/fume/gas/mist/vapours/spray. |
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P302+352 | IF ON SKIN: Wash with plenty of soap and water. |
| P304+340 | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. |
| P333+313 | If skin irritation or rash occurs: Get medical advice/attention. |

2.3 Other hazards

No Information

Results of PBT and vPvB assessment:

The product does not meet the criteria for PBT/VPvB in accordance with Annex XIII.

SECTION 3: Composition/Information On Ingredients

3.2 Mixtures

Hazardous Ingredients

| <u>CAS-No.</u> | <u>EINEC No.</u> | <u>Name According to EEC</u> | <u>%</u> |
|----------------|------------------|---|------------|
| 28182-81-2 | 500-060-2 | Hexamethylene 1,6-diisocyanate, oligomerisation product (isocyanurate type) | 75-100 |
| 822-06-0 | 212-485-8 | Hexamethylene diisocyanate | 0.1 - <1.0 |

| <u>CAS-No.</u> | <u>REACH Reg No.</u> | <u>CLP Symbols</u> | <u>CLP Hazard Statements</u> | <u>M-Factors</u> |
|----------------|----------------------|--------------------|------------------------------|------------------|
| 28182-81-2 | 01-2119485796-17 | GHS07 | H317-332-335 | |
| 822-06-0 | 01-2119457571-37 | GHS05-GHS06-GHS08 | H302-314-317-330-334 | |

Additional Information: The text for CLP Hazard Statements shown above (if any) is given in Section 16.

SECTION 4: First-aid Measures

4.1 Description of First Aid Measures

GENERAL NOTES: When symptoms persist or in all cases of doubt seek medical advice. Show this safety data sheet to the doctor in attendance. Risk of product entering the lungs on vomiting after ingestion. Remove contaminated clothing and shoes.

AFTER INHALATION: Move to fresh air. Consult a physician after significant exposure. Keep respiratory tract clear. Remove person to fresh air. If signs/symptoms continue, get medical attention.

AFTER SKIN CONTACT: Use a mild soap if available. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.

AFTER EYE CONTACT: Keep eye wide open while rinsing. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses. If eye irritation persists, consult a specialist.

AFTER INGESTION: Gently wipe or rinse the inside of the mouth with water. Do NOT induce vomiting. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. If swallowed, seek medical advice immediately and show this container or label.

Self protection of the first aider:

No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

No Information

4.3 Indication of any immediate medical attention and special treatment needed

No information available on clinical testing and medical monitoring. Specific toxicological information on substances, if available, can be found in section 11.

SECTION 5: Fire-fighting Measures

5.1 Extinguishing Media:

Carbon Dioxide, Dry Chemical, Foam, Water Fog

FOR SAFETY REASONS NOT TO BE USED: Alcohol, Alcohol based solutions, any other media not listed above.

5.2 Special hazards arising from the substance or mixture

No Information

5.3 Advice for firefighters

Keep containers and surroundings cool with water spray. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Fire will produce dense black smoke containing hazardous combustion products (see section 10). In the event of fire, wear self-contained breathing apparatus. High volume water jet. Hazardous decomposition products formed under fire conditions. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

SECTION 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment. Keep people away from and upwind of spill/leak.

6.2 Environmental precautions

Do not allow material to contaminate ground water system. Prevent product from entering drains. May cause long-term adverse effects in the aquatic environment.

6.3 Methods and material for containment and cleaning up

Prevent further leakage or spillage if safe to do so. Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13). Refer to protective measures listed in sections 7 and 8.

6.4 Reference to other sections

FURTHER INSTRUCTIONS: Please refer to EU disposal requirements or country specific disposal requirements for this material. See Section 13 for further information.

SECTION 7: Handling and Storage

7.1 Precautions for safe handling

Use only in area provided with appropriate exhaust ventilation. Wear personal protective equipment. Use only in well-ventilated areas. Do not breathe vapours or spray mist.

Repeated or prolonged skin contact may cause skin irritation and/or dermatitis and sensitization of susceptible persons. In the case of sensitisation to any of the ingredients, it is inadvisable to work with the product. Handle in accordance with good industrial hygiene and safety practice. Keep working clothes separately. Keep away from food, drink and animal feedingstuffs. Wash hands before breaks and at the end of workday. When using, do not eat, drink or smoke. Wash hands and face before breaks and immediately after handling the product.

7.2 Conditions for safe storage, including any incompatibilities

CONDITIONS TO AVOID: Avoid temperatures above 40 °C, direct sunlight and contact with sources of heat. Do not freeze. Direct sources of heat.

STORAGE CONDITIONS: Do not freeze. Store in original container. Store at room temperature in the original container.

Keep locked up or in an area accessible only to qualified or authorised persons. Keep container closed when not in use. Store in a dry, well ventilated place away from sources of heat, ignition and direct sunlight.

7.3 Specific end use(s)

Component of a resin flooring product. The mixing and application to be in accordance with the technical data sheets. Component of Mondéco Classic, Mondéco Crystal Ice, Mondéco Exotic, and their variants.

SECTION 8: Exposure Controls/Personal Protection

8.1 Control parameters

Ingredients with Occupational Exposure Limits (UK WELS)

| <u>Name</u> | <u>CAS-No.</u> | <u>LTEL ppm</u> | <u>STEL ppm</u> | <u>STEL mg/m3</u> | <u>LTEL mg/m3</u> |
|---|----------------|-----------------|-----------------|-------------------|-------------------|
| Hexamethylene 1,6-diisocyanate, oligomerisation product (isocyanurate type) | 28182-81-2 | | | 0.07 | 0.02 |
| Hexamethylene diisocyanate | 822-06-0 | | | 0.07 | 0.02 |

| <u>Name</u> | <u>CAS-No.</u> | <u>OEL Note</u> |
|---|----------------|-----------------------------|
| Hexamethylene 1,6-diisocyanate, oligomerisation product (isocyanurate type) | 28182-81-2 | Isocyanates, all (as - NCO) |
| Hexamethylene diisocyanate | 822-06-0 | Isocyanates, all (as - NCO) |

FURTHER ADVICE: Refer to the regulatory exposure limits for the workforce enforced in each country. Some components may not have been classified under the EU CLP Regulation.

8.2 Exposure controls

Personal Protection

RESPIRATORY PROTECTION: In case of insufficient ventilation wear suitable respiratory equipment. Respirator with filter for organic vapor.

EYE PROTECTION: Eye wash bottle with pure water. Tightly fitting safety goggles. Face-shield.

HAND PROTECTION: Impervious gloves. Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). Long sleeved clothing. Remove and wash contaminated clothing before re-use. Rubber or plastic apron.

OTHER PROTECTIVE EQUIPMENT: No Information

ENGINEERING CONTROLS: As a rule, at least 5 air changes per hour are recommended at the workplace. Avoid contact with skin, eyes and clothing. Ensure adequate ventilation, especially in confined areas.

Chemical Name:

Hexamethylene 1,6-diisocyanate, oligomerisation product (isocyanurate type)

EC No.:

500-060-2

CAS-No.:

28182-81-2

DNELs - Derived no effect level

| Route of Exposure | Workers | | | | Consumers | | | |
|-------------------|---------------------|------------------------|-----------------------|--------------------------|--------------------|------------------------|-----------------------|--------------------------|
| | Acute effect local | Acute effects systemic | Chronic effects local | Chronic effects systemic | Acute effect local | Acute effects systemic | Chronic effects local | Chronic effects systemic |
| Oral | Not required | | | | | | | |
| Inhalation | 1 mg/m ³ | | 0.5 mg/m ³ | | | | | |
| Dermal | | | | | | | | |

PNEC's - Predicted no effect concentration

| Environmental protection target | PNEC |
|--|--------------|
| Fresh water | 0.127 mg/l |
| Fresh water sediments | 266700 mg/kg |
| Marine water | 0.0127 mg/l |
| Marine sediments | 26670 mg/kg |
| Food chain | |
| Microorganisms in sewage treatment soil (agricultural) | 38.3 mg/l |
| Air | 53182 mg/kg |

Chemical Name:

Hexamethylene diisocyanate

EC No.:

212-485-8

CAS-No.:

822-06-0

DNELs - Derived no effect level

| Route of Exposure | Workers | | | | Consumers | | | |
|-------------------|--------------------|------------------------|-------------------------|--------------------------|--------------------|------------------------|-----------------------|--------------------------|
| | Acute effect local | Acute effects systemic | Chronic effects local | Chronic effects systemic | Acute effect local | Acute effects systemic | Chronic effects local | Chronic effects systemic |
| Oral | Not required | | | | | | | |
| Inhalation | | 0.07 mg/m ³ | 0.035 mg/m ³ | 0.035 mg/m ³ | | | | |
| Dermal | | | | | | | | |

PNEC's - Predicted no effect concentration

| Environmental protection target | PNEC |
|--|---------------|
| Fresh water | 0.0774 mg/l |
| Fresh water sediments | 0.01334 mg/kg |
| Marine water | 0.00774 mg/l |
| Marine sediments | 0.001344 |
| Food chain | |
| Microorganisms in sewage treatment soil (agricultural) | 8.42 mg/l |
| Air | 0.026 mg/kg |

SECTION 9: Physical and Chemical Properties**9.1 Information on basic physical and chemical properties**

| | |
|--|----------------|
| Appearance: | Not determined |
| Physical State | Not determined |
| Odor | Not determined |
| Odor threshold | Not determined |
| pH | Not determined |
| Melting point / freezing point (°C) | Not determined |
| Boiling point/range (°C) | 255 - N.D. |
| Flash Point, (°C) | 999 |

| | |
|--|----------------|
| Evaporation rate | Not determined |
| Flammability (solid, gas) | Not determined |
| Upper/lower flammability or explosive limits | 999 - 0 |
| Vapour Pressure | Not determined |
| Vapour density | Not determined |
| Relative density | Not determined |
| Solubility in / Miscibility with water | Not determined |
| Partition coefficient: n-octanol/water | Not determined |
| Auto-ignition temperature (°C) | Not determined |
| Decomposition temperature (°C) | Not determined |
| Viscosity | Not determined |
| Explosive properties | Not determined |
| Oxidising properties | Not determined |

9.2 Other information

VOC Content g/l: <30

This is a calculated maximum VOC content for the mixed ready to use product (to Directive 2004/42/EC).

SECTION 10: Stability and Reactivity

10.1 Reactivity

No reactivity hazards known under normal storage and use conditions.

10.2 Chemical stability

No decomposition if stored and applied as directed. Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous polymerisation does not occur. Hazardous polymerisation may occur.

10.4 Conditions to avoid

Avoid temperatures above 40 °C, direct sunlight and contact with sources of heat. Do not freeze. Direct sources of heat.

10.5 Incompatible materials

Acids. Strong oxidizing agents.

10.6 Hazardous decomposition products

In case of fire **hazardous decomposition products** may be produced such as: Carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), dense black smoke.

SECTION 11: Toxicological Information

11.1 Information on toxicological effects

Acute Toxicity:

Oral LD50: No Information

Inhalation LC50: No Information

Irritation: No information available.

Corrosivity: No information available.

Sensitization: No information available.

| | |
|-----------------------------------|---------------------------|
| Repeated dose toxicity: | No information available. |
| Carcinogenicity: | No information available. |
| Mutagenicity: | No information available. |
| Toxicity for reproduction: | No information available. |
| STOT-single exposure: | No information available. |
| STOT-repeated exposure: | No information available. |
| Aspiration hazard: | No information available. |

If no information is available above under Acute Toxicity then the acute effects of this product have not been tested. Data on individual components are tabulated below:

| <u>CAS-No.</u> | <u>Name According to EEC</u> | <u>Oral LD50</u> | <u>Dermal LD50</u> | <u>Vapor LC50</u> | <u>Gas LC50</u> | <u>Dust/Mist LC50</u> |
|----------------|---|--------------------|--------------------|-------------------------|-----------------|-----------------------|
| 28182-81-2 | Hexamethylene 1,6-diisocyanate, oligomerisation product (isocyanurate type) | > 2500 mg/kg (rat) | > 2001 mg/kg (rat) | | | 1.5 |
| 822-06-0 | Hexamethylene diisocyanate | 959 mg/kg (rat) | >7000 mg/kg (rat) | 0.124 mg/l, 4 hrs (rat) | 0.000 | 0.000 |

Additional Information:

In the case of sensitisation to any of the ingredients, it is inadvisable to work with the product. Repeated or prolonged skin contact may cause skin irritation and/or dermatitis and sensitization of susceptible persons. Corrosive - causes irreversible eye damage.

SECTION 12: Ecological Information

12.1 Toxicity:

| | |
|-----------------------------|----------------|
| EC50 48hr (Daphnia): | No information |
| IC50 72hr (Algae): | No information |
| LC50 96hr (fish): | No information |

12.2 Persistence and degradability: No information

12.3 Bioaccumulative potential: No information

12.4 Mobility in soil: No information

12.5 Results of PBT and vPvB assessment: The product does not meet the criteria for PBT/VPvB in accordance with Annex XIII.

12.6 Other adverse effects: No information

| <u>CAS-No.</u> | <u>Name According to EEC</u> | <u>EC50 48hr</u> | <u>IC50 72hr</u> | <u>LC50 96hr</u> |
|----------------|---|------------------|------------------|--------------------------|
| 28182-81-2 | Hexamethylene 1,6-diisocyanate, oligomerisation product (isocyanurate type) | > 100 mg/l | > 1000 mg/l | > 100 mg/l (danio rerio) |
| 822-06-0 | Hexamethylene diisocyanate | No information | >77.4 mg/l | No information |

SECTION 13: Disposal Considerations

13.1 WASTE TREATMENT METHODS: Dispose of as hazardous waste in compliance with local and national regulations. If recycling is not practicable, dispose of in compliance with local regulations. Container hazardous when empty. Empty containers should be taken to an approved waste handling site for recycling or disposal. The product should not be allowed to enter drains, water courses or the soil.

European Waste Code: 08 05 01*
 Packaging Waste Code: 150110

SECTION 14: Transport Information

| | | |
|------|--|---------------------|
| 14.1 | UN number | Not applicable |
| 14.2 | UN proper shipping name | NOT DANGEROUS GOODS |
| | Technical name | Not applicable |
| 14.3 | Transport hazard class(es) | Not applicable |
| | Subsidiary shipping hazard | Not applicable |
| 14.4 | Packing group | Not applicable |
| 14.5 | Environmental hazards | Not applicable |
| 14.6 | Special precautions for user | Not applicable |
| | EmS-No.: | Not applicable |
| 14.7 | Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code | Not applicable |

SECTION 15: Regulatory Information

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

National Regulations:

Denmark Product Registration Number: Not available

Danish MAL Code: 00-3 (1993)

Danish MAL Code - Mixture: Not available

Sweden Product Registration Number: Not available

Norway Product Registration Number: Not available

Germany WGK Class: Not available

Covered by Directive 2012/18/EC (Seveso III): Not applicable

Restrictions to product or to substances according to Annex XVII, Regulation (CE) 1907/2006: Not applicable

Annex XIV - Authorisation List:

CAS-No. Name According to EEC

Not Applicable

SVHC - Substances of very high concern (Candidate List):

CAS-No. Name According to EEC

Not Applicable

15.2 Chemical Safety Assessment:

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16: Other Information

Text for CLP Hazard Statements shown in Section 3 describing each ingredient:

| | |
|------|--|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| H317 | May cause an allergic skin reaction. |
| H330 | Fatal if inhaled. |
| H332 | Harmful if inhaled. |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H335 | May cause respiratory irritation. |

Reasons for revision

Revision Statement(s) Changed

This Safety Data Sheet (SDS) has been revised to meet the new EU CLP requirements. There have been both formatting and content changes based on the CLP classification (if applicable), please review each section of the SDS for specific changes.

List of References:

This Safety Data Sheet was compiled with data and information from the following sources:

The Ariel Regulatory Database provided by the 3E Corporation in Copenhagen, Denmark;
 European Union Commission Regulation No. 1907/2006 on REACH as amended within Commission Regulation (EU) 2015/830;
 European Union (EC) Regulation No. 1272/2008 on the classification, labelling and packaging of substances and mixtures (CLP Regulation) and subsequent technical progress adaptations (ATP);
 EU Council Decision 2000/532/EC and its Annex entitled "List of Wastes".

Acronym & Abbreviation Key:

| | |
|-------------------|---|
| CLP | Classification, Labeling & Packaging Regulation |
| EC | European Commission |
| EU | European Union |
| US | United States |
| CAS | Chemical Abstract Service |
| EINECS | European Inventory of Existing Chemical Substances |
| REACH | Registration, Evaluation, Authorization of Chemicals Regulation |
| GHS | Globally Harmonized System of Classification and Labeling of Chemicals |
| LTEL | Long term exposure limit |
| STEL | Short term exposure limit |
| OEL | Occupational exposure limit |
| ppm | Parts per million |
| mg/m ³ | Milligrams per cubic meter |
| TLV | Threshold Limit Value |
| ACGIH | American Conference of Governmental Industrial Hygienists |
| OSHA | Occupational Safety & Health Administration |
| PEL | Permissible Exposure Limits |
| VOC | Volatile organic compounds |
| g/l | Grams per liter |
| mg/kg | Milligrams per kilogram |
| N/A | Not applicable |
| LD50 | Lethal dose at 50% |
| LC50 | Lethal concentration at 50% |
| EC50 | Half maximal effective concentration |
| IC50 | Half maximal inhibitory concentration |
| PBT | Persistent bioaccumulative toxic chemical |
| vPvB | Very persistent and very bioaccumulative |
| EEC | European Economic Community |
| ADR | International Transport of Dangerous Goods by Road |
| RID | International Transport of Dangerous Goods by Rail |
| UN | United Nations |
| IMDG | International Maritime Dangerous Goods Code |
| IATA | International Air Transport Association |
| MARPOL | International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978 |

| | |
|-----|------------------------------|
| IBC | International Bulk Container |
| RTI | Respiratory Tract Irritation |
| NE | Narcotic Effects |

For further information, please contact: Technical Services Department

The information on this sheet corresponds to our present knowledge. It is not a specification and it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage, and use of the product. It is not applicable to unusual or non-standard uses of the product or where instructions and recommendations are not followed.