

Verduren B component version 1.1

**Product name Verduren B component Hardener**

Verduren encourage you to read the full Safety Data Sheet (SDS) because it contains important information. We expect you to follow the precautionary statements specified in the SDS, unless the specific conditions in which you use this product require other appropriate measures.

## 1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

### 1.1 Product name

Verduren B component Hardener

Chemical name (REACH registration): hexamethylene-1,6-diisocyanate homopolymer

EC No. 500-060-2

REACH registration number: 01-2119488934-20-0000

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

Use: Hardener for coating materials or adhesives for industrial and commercial applications

Identified uses based on Regulation (EU) No 1907/2006:

- Production of fabrics
- Formulation
- Industrial end use
- Professional end use

Uses advised against: Not suitable for do-it-yourself applications

### 1.3 Details of the supplier of the safety data sheet

Identification of the company / company

Verduren

1098 Chestnut Bend

West Plains, MO 65775

TELEPHONE NUMBER FOR EMERGENCY

Local emergency contact: 877-948-0063

Hours: 9 a.m. to 5 p.m.

## 2. IDENTIFICATION OF THE HAZARDS

### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Acute inhalation toxicity, Hazard category 4 (H332) Skin sensitization, Hazard category 1 (H317) Specific target organ toxicity - Single exposure, Hazard Category 3, Respiratory tract irritation (H335)

Classification (2006/121 / EC, 1999/45 / EC):

Harmful if inhaled.

May cause an allergic skin reaction.

May cause respiratory irritation.

### 2.2 Label elements

Warning

Hazardous components which must be mentioned on the label

Hexamethylene-1,6-diisocyanate homopolymer

EC No .: 500-060-2

Hazard designations

H317 May cause an allergic skin reaction

H332 Harmful if inhaled

H335 May cause respiratory irritation

Precautionary measures:

P261 Avoid breathing dust / fumes / mist / vapors / spray

P280 Wear protective gloves / protective clothing / eye protection / face protection. P304

+ P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell.

P333 + P313 If skin irritation or rash occurs, seek medical advice.

P362 + P364 Take off contaminated clothing and wash before reuse.

P403 + P223 Store in a well-ventilated place.

Keep in tightly closed packaging.

## 2.3 Other hazards

No data available

## 3. COMPOSITION AND INFORMATION ON THE INGREDIENTS

Type of product: Mixture

### 3.1 Substances

Hexamethylene-1,6 diisocyanate Homopolymer

Hazardous ingredients

Hexamethylene-1,6-diisocyanate homopolymer, Concentration [%]: ca. 100

EC No .: 500-060-2, REACH registration number: 01-2119488934-20-0000,

CAS No .: 28182- 81-2

Classification (1272/2008 / EC): Acute Tox. 4 by inhalation

H332 Skin Sens. 1

H317 STOT EB 3 H335

hexamethylene-1,6-diisocyanate Concentration [% by weight]: <0.25

Index No: 615-011-00-1

REACH registration no .: 01-2119457571-37-0000, 01-2119457571-37, 01-2119457571-37-0006

CAS No .: 822-06-0

Classification (1272/2008 / EC): Acute Tox. Oral H302 Acute Tox. 1 Inhalative H330 Skin Irrit. 2

H315 Eye Irrit. 2 H319

Resp. Sens. 1 H334 Skin Sens. 1 H317 STOT SE3 H335

Specific boundary concentrations (GHS):

Resp. Sens. 1 H334> = 0.5%

Skin Sens. 1 H317> = 0.5%

No exposure scenarios are required for the above-mentioned contaminants of the substances according to Article 3 (1) of Regulation (EC) No. 1907/2006.

Candidate list of substances very much care for authorization

This product does not contain substances of very high concern (Regulation (EC) No. 1907/2006 (REACH), Article 57).

## 4. FIRST AID

### 4.1 Description of the first aid measures

General advice: immediately remove all contaminated clothing

If inhaled: remove victim to fresh air, keep warm, rested. Consult a doctor if there are breathing problems.

On contact with skin: deeply soak the skin with soap and plenty of water. In case of skin irritation, consult a doctor.

In the event of contact with the eyes: keep the eyes open and rinse for a long time (at least 10 minutes) with preferably lukewarm water. Consult the ophthalmologist.

If swallowed: Do NOT induce vomiting. Consult physician.

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

Note to physician: First Aid, disinfection, symptomatic treatment.

### 4.3 Indication of the immediate medical attention and special treatment required

Therapeutic measures: No data available.

## 5. FIRE-FIGHTING MEASURES

### 5.1 Fire extinguishing media

Suitable extinguishing media: carbon dioxide (CO<sub>2</sub>), foam, extinguishing powder. Use water spray for larger fires.

Unsuitable extinguishing media: strong water jet

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

In case of fire these gasses may be formed: carbon monoxide, carbon dioxide, nitrogen oxides, isocyanate vapors and traces of hydrogen cyanide.

Do not inhale fumes and fire gases.

### 5.3 Advice for firefighters

Wear ambient air-independent and airtight breathing apparatus when extinguishing.

Do not allow contaminated fire extinguishing water to enter the soil, groundwater or surface water.

## 6. ACCIDENTAL RELEASE MEASURES

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

Wear protective clothing and equipment (see section 8). Ensure adequate ventilation / extraction. Keep unauthorized persons at a distance.

### 6.2 Environmental precautions

Prevent penetration into public waters, prevent entrance into sewage or soil.

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

Remove by mechanical equipment; cover residues with water absorbent material (eg sawdust, chemical binders based on calcium silicate hydrate or sand). After about an hour transfer to waste container, do not seal (CO<sub>2</sub> formation!). Keep moist for a few days in a safe, ventilated room.

### 6.4 References to other sections

for further processing measures, see section 13.

## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling of the substance or mixture

- Ensure adequate ventilation and / or extraction in work areas.
- Ventilation required when the product is sprayed.
- Take account of the threshold values in section 8.

In all rooms in which higher concentrations of isocyanate spray mist and / or vapor concentrations are produced, sufficient ventilation must be available in order not to exceed the occupational exposure limits. The air must be removed from the personnel using the product.

Observe the personal protection measures in section 8. Take the precautions necessary for the processing of isocyanate. Avoid contact with skin and eyes and inhalation of vapors.

Keep away from food, drink and tobacco. Wash hands before breaks and at the end of work. Use skin protective ointment. Keep work clothes in a separate place. Remove all contaminated clothing immediately.

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

Keep container dry and closed in a cool and well-ventilated location. For more information about storage conditions for maintaining product quality, see our product data sheet.

German storage classification 10: Flammable liquids (TRGS 510)

### 7.3 Specific end use

No data available

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1 Control parameters

No data concerning air limit values required by EC Directive 2006/121 / EC.

Derived dose without effects (DNEL) or derived dose with minimal effect (DMEL)

Hexamethylene-1,6-diisocyanate homopolymer

Value type: Health consequences: Value: Remarks:

Workers Inhalation Long-term local effects 0.5 mg / m<sup>3</sup>

Most sensitive endpoint: irritation (airways)

Workers Inhalation Acute - local effects 1 mg / m<sup>3</sup>

Most sensitive endpoint: irritation (respiratory tract)

Employees Dermal Long-term - local effects No quantitative risk assessment possible. Most sensitive endpoint: sensitization (skin)

Workers Dermal Acute - local effects No quantitative Risk assessment possible Most sensitive endpoint: sensitization (skin)

Predicted concentrations without effect (PNEC) Hexamethylene-1,6-diisocyanate homopolymer

Compartment: Value: Remarks:

Fresh water 0,199 mg / l

Fresh water deposit 44551 mg / kg Dry weight

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Sea deposit 4455 mg / kg Dry weight Sewage treatment plant 100 mg / l Soil 8884 mg / kg  
Dry weight

Oral Not relevant

## 8.2 Exposure controls

Protection of the airways

Respiratory protection required in insufficiently ventilated workspaces and during spraying. See the separate exposure scenarios in the appendix for recommendations regarding respiratory protection.

Persons with hypersensitive airways and / or hypersensitive skin (eg asthmatics and persons with chronic bronchitis and chronic skin complaints) are advised not to use the product.

Protection of the hands

Suitable materials for protective gloves; EN 374: Butyl rubber - IIR: thickness  $\geq 0,5\text{mm}$ ; permeation time  $\geq 480$  min. Fluorinated rubber - FKM: thickness 0.4 mm, permeation time  $\geq 480$  min. Laminated gloves - PE / EVAL / PE; permeation time  $\geq 480$  min.

Recommendation: contaminated gloves should be destroyed.

Eye protection: Wear eye / face protection.

Protection of skin and body: Wear suitable protective clothing.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1 Control parameters

No data concerning air limit values required by EC Directive 2006/121 / EC.

Derived dose without effects (DNEL) or derived dose with minimal effect (DMEL)

Hexamethylene-1,6-diisocyanate homopolymer



Value type: Health consequences: Value: Remarks: Workers Inhalation Long-term local effects 0.5 mg / m<sup>3</sup>

Most sensitive endpoint: irritation (airways)

Workers Inhalation Acute - local effects 1 mg / m<sup>3</sup> Most sensitive endpoint: irritation (respiratory tract)

Employees Dermal Long-term - local effects No quantitative risk assessment possible. Most sensitive endpoint: sensitization (skin)

Workers Dermal Acute - local effects No quantitative Risk assessment possible Most sensitive endpoint: sensitization (skin)

Predicted concentrations without effect (PNEC)

Hexamethylene-1,6-diisocyanate homopolymer

Compartment: Value: Remarks:

Fresh water 0,199 mg / l

Fresh water deposit 44551 mg / kg Dry weight

Sea water 0.0199 mg / l

Sea deposit 4455 mg / kg Dry weight

Sewage treatment plant 100 mg / l

Soil 8884 mg / kg Dry weight

Oral Not relevant

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Protection of the airways

Respiratory protection required in insufficiently ventilated workspaces and during spraying. See the separate exposure scenarios in the appendix for recommendations regarding respiratory protection.

Persons with hypersensitive airways and / or hypersensitive skin (eg asthmatics and persons with chronic bronchitis and chronic skin complaints) are advised not to use the product.

#### Protection of the hands

Suitable materials for protective gloves; EN 374: Butyl rubber - IIR: thickness  $\geq$  0,5mm; permeation time  $\geq$  480 min. Fluorinated rubber - FKM: thickness 0.4 mm, permeation time  $\geq$  480 min. Laminated gloves - PE / EVAL / PE; permeation time  $\geq$  480 min. Recommendation: contaminated gloves should be destroyed.

#### Eye protection

Wear eye / face protection.

#### Protection of skin and body

Wear suitable protective clothing.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information about basic physical and chemical properties

Physical state: Liquid

Color: Colorless

Odor: Light inherent smell

Odor threshold: Not determined

pH value: Not applicable

Flash point: approx. 203 ° C at 1,013 hPa DIN EN 22719 Evaporation rate: Not determined

Flammability (solid, gaseous): Not applicable

Fire number: Not applicable

Vapor pressure:  $<0.00001$  hPa at 20 ° C EG A4

Vapor pressure of components:

hexamethylene-1,6- about 0.007 hPa at 20 ° C

diisocyanate

Vapor density: Not determined

Density: about 1.15 g / cm<sup>3</sup> at 20 ° C DIN 51757

Solubility in water: Insoluble at 15 ° C

Surface tension: approx. 46.5 mN / m at 20 ° C

Partition coefficient (n-octanol / water): log Pow: ca. 8.38 (value calculated) Auto-ignition temperature: Not applicable

Ignition temperature: approx. 440 ° C DIN 51794

Decomposition temperature: approx. 150 ° C

Viscosity, dynamic: approx. 958 mPa • s at 20 ° C DIN 53019

Explosive properties: Non-explosive

Dust explosion class: Not applicable

Oxidising properties: Not determined

## 9.2 Other information:

The stated values do not necessarily correspond to the product specifications. See the technical data sheet for specific data.

## 10. STABILITY AND REACTIVITY

10.1 Reactivity: This information is not available

10.2 Chemical stability: This information is not available

10.3 Possibility of hazardous reactions: Exothermic reaction with amines and alcohols; with water gradually CO<sub>2</sub> development, in sealed packaging pressure increase; danger of bursting

10.4 Conditions to avoid: This information is not available

10.5 Incompatible materials: This information is not available

10.6 Hazardous decomposition products: No hazardous decomposition products if handled and stored properly

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

Acute toxicity, oral

Hexamethylene-1,6-diisocyanate homopolymer LD50 rat, female: > = 5,000 mg / kg

Method: OECD test guideline 423

Acute toxicity, dermal

Hexamethylene-1,6-diisocyanate homopolymer LD50 rat, male / female: > = 2.000 mg / kg

Method: OECD test guideline 402

Study with a similar product

LD50 rabbit, male / female: > 2,000 mg / kg Study with a similar product

Acute toxicity, by inhalation

Hexamethylene-1,6-diisocyanate homopolymer LC50 rat, female: 0.390 mg / l, 4 h

Test environment: dust / fog

Method: OECD test guideline 403

Toxicity study with a similar product

The substance has been tested in a form (eg a specific particle size distribution) that differs from the forms in which the product is placed on the market and in which it is likely to be used. On the basis of the split-entry concept and the available information on particle sizes at the end-use of a substance, an adapted classification for acute inhalatory toxicity is justified.

Converted estimated toxicity limit 1.5 mg / l Test environment: substance / fog Method:

Expert assessment

Assessment: Harmful by inhalation

Primary skin irritation

Hexamethylene-1,6-diisocyanate homopolymer

Type: rabbit

Result: slightly irritating

Classification: no skin irritation

Method: OECD test guideline 404

## Primary mucosal irritation

Hexamethylene-1,6-diisocyanate homopolymer Type: rabbit

Result: slightly irritating

Classification: no eye irritation

Method: OECD test guideline 405

## Sensitization

Hexamethylene-1,6-diisocyanate homopolymer Skin sensitization (local lymph node assay (LLNA)): Type: mouse

Result: positive

Classification: May cause an allergic skin reaction Method: OECD test guideline 429

## Sensitization of the respiratory tract

Classification: No classification in accordance with EC Directive 2006/121 / EC or 1999/45 / EC as respiratory sensitizer.

No pulmonary hypersensitivity was observed in animal experiments.

No pulmonary hypersensitivity potential observed in guinea pigs after intradermal or inhalative induction with polyisocyanate, based on hexamethylene diisocyanate.

## Subacute, subchronic and long-term toxicity

Hexamethylene-1,6-diisocyanate homopolymer

NOAEL: 3.3 mg / m<sup>3</sup> of air

Administration: inhalative

Species: rat, male / female

Dosages: 0 - 0.5 - 3.3 - 26.4 mg / m<sup>3</sup>

Exposure time: 90 d

Treatment frequency: 6 hours a day, 5 days a week

Test substance: as an aerosol

Method: OECD test guideline 413

Toxicity study with a similar product.

No evidence of damage found on organs other than the respiratory organs

Carcinogenicity:

Hexamethylene-1,6-diisocyanate homopolymer

No data available

Reproductive toxicity / fertility

Hexamethylene-1,6-diisocyanate homopolymer

Available data show no indication for reproductive toxicity

Reproductive toxicity / teratogenicity

Hexamethylene-1,6-diisocyanate homopolymer

Animal experiments with structurally similar compositions do not show an indication of specific reproductive toxicity

#### **Genotoxicity in vitro:**

- Hexamethylene-1,6-diisocyanate homopolymer
- Test type: Salmonella / microsome test (Ames test)
- Metabolic activation: with / without
- Result: no indication of mutagenic effects
- Method: OECD test guideline 471

Test type: Point mutation in mammalian cells (HPRT test) Metabolic activation: with / without

Result: negative

Method: OECD test guideline 476

Toxicity study with a similar product

Test type: Test for chromosome aberrations in vitro Test system: Chinese dwarf hamster V79 cell line Metabolic activation: with / without

Result: negative

Method: OECD test guideline 473

Toxicity study with a similar product

Genotoxicity in vivo

No data available

STOT evaluation - single exposure

Hexamethylene-1,6-diisocyanatehomopolymer

Exposure: inhalative

May cause respiratory irritation

STOT evaluation - repeated exposure:

Hexamethylene-1,6-diisocyanatehomopolymer

Based on the available data, the classification criteria are not met

### **Aspiration toxicity**

Hexamethylene-1,6-diisocyanatehomopolymer

Based on the available data, the classification criteria are not met

### **CMR assessment**

Hexamethylene-1,6-diisocyanatehomopolymer

Carcinogenicity: Based on available data, the classification criteria are not met

### **Mutagenicity**

In vitro tests have not shown any mutagenic effects. Based on the available data, the classification criteria are not met

### **Teratogenicity**

Based on the available data, the classification criteria are not met.

Reproductive toxicity / fertility: Based on available data, the classification criteria are not met.

### **Toxicological assessment**

Hexamethylene-1,6-diisocyanatehomopolymer

Acute effects: Harmful if inhaled.

Sensitization: May cause an allergic skin reaction

Additional information:

Special properties / effects: Excessive exposure, especially when spraying isocyanate-containing coatings without the necessary precautions, involves risks of an irritant effect on the eyes, nose, throat and airways, depending on the concentration. There may be complaints with some delay; Hypersensitivity can also be developed (problems with breathing, coughing and asthma). Hypersensitive individuals may already experience these effects at low isocyanate concentrations, even at concentrations below occupational exposure limit values. Prolonged contact with skin may cause tanning and irritant effects.

Animal studies and other studies indicate that skin contact with diisocyanates may play a role in the development of sensitivity to isocyanate and to reactions to the airways.

## 12. ECOLOGICAL INFORMATION

Prevent penetration into public waters, prevent sewerage or soil.

### 12.1 Toxicity

Acute toxicity fish

Hexamethylene-1,6-diisocyanate homopolymer

LC50 > 100 mg / l

Species: Danio rerio (zebrafish)

Exposure time: 96 h

Method: Directive 67/548 / EEC, Annex V, C. 1.

Test preparation for reactivity of the substance with water: Ultra turrax: 60 sec. 8000 rpm; 24h magnetic stirrer; filtration.

Acute toxicity to water fleas:

Hexamethylene-1,6-diisocyanate homopolymer

EC50 > 100 mg / l

Species: Daphnia magna (large water flea)

Exposure time: 48 h

Method: Directive 67/548 / EEC, Annex V, C.2.

Test preparation for reactivity of the substance with water: Ultra turrax: 60 sec. 8000 rpm; 24h magnetic stirrer; filtration.



Acute toxicity to algae:

Hexamethylene-1,6-diisocyanatehomopolymer

ErC50 199 mg / l

Test type: Growth inhibition

Species: scenedesmus subspicatus

Exposure time: 72 h

Method: Directive 67/548 / EEC, Annex V, C.3.

Test preparation for reactivity of the substance with water: Ultra turrax: 60 sec. 8000 rpm;  
24h magnetic stirrer; filtration.

Acute bacterial toxicity:

Hexamethylene-1,6-diisocyanatehomopolymer

EC50 > 10,000 mg / l

Test type: Respiration inhibition

Type: activated sludge

Exposure time: 3 h

Method: EC-RL 88/302 / EEC

Ecotoxicological assessment:

Hexamethylene-1,6-diisocyanatehomopolymer

Acute aquatic toxicity: Based on available data, the classification criteria are not met. Chronic aquatic toxicity: Nothing indicates chronic aquatic toxicity.

Consequences for the treatment of waste water: Due to the low bacterial toxicity, there is no risk of damaging effects on the performance of biological waste water treatment

## 12.2 Persistence and degradability

### Biodegradability:

- Hexamethylene-1,6-diisocyanate homopolymer
- Test type: aerobic
- Biodegradation: 2%, 28 d, or not immediately degradable
- Method: Directive 67/548 / EEC, Annex V, C.4.E.
- Ecotoxicological research into the product
- Test type: aerobic
- Biodegradation: 0%, 28 days, or not inherently degradable
- Method: OECD test guideline 302 C
- Ecotoxicological research into the product.

Stability in water:

Hexamethylene-1,6-diisocyanate homopolymer Test type: Hydrolysis

Half-life: 7.7 hours at 23 ° C

Method: OECD test guideline 111

The substance quickly hydrolyzes in water. Study with a similar product.

### Photo degradation:

- Hexamethylene-1,6-diisocyanate homopolymer Test type: Phototransformation in air
- Temperature: 25 ° C
- Sensitizer: OH-radicals
- Half-life indirect photolysis: 11.7 h
- Method: SRC - AOP (calculation)

After evaporation or exposure to air, the product will be rapidly degraded by photochemical processes.

Test type: Phototransformation in air

Temperature: 25 ° C

Sensitizer: OH-radicals

Half-life indirect photolysis: 3.1 h

Method: SRC - AOP (calculation)

After evaporation or exposure to air, the product will be rapidly degraded by photochemical processes.

Research into hydrolysis products.

Volatility (Constant Law of Henry) :

Hexamethylene-1,6-diisocyanate homopolymer

Calculated value =  $<0.000001 \text{ Pa} \cdot \text{m}^3 / \text{mol}$  at 25 ° C

Method: Bond method

The substance must be classified as non-volatile in water.

Calculated value =  $<0.000001 \text{ Pa} \cdot \text{m}^3 / \text{mol}$  at 25 ° C

Method: Bond method

The substance must be classified as non-volatile in water.

Research into hydrolysis products.

## 12.3 Possible bioaccumulation

Bioaccumulation

Hexamethylene-1,6-diisocyanate homopolymer

Bioconcentration factor (BCF) 706.2

Method: (calculated)

The substance hydrolyses quickly in water.

An accumulation in aquatic organisms is not obvious.

Bioconcentration factor (BCF) 10.11

Method: (calculated)

An accumulation in aquatic organisms is not obvious.

Research into hydrolysis products.

Partition coefficient (n-octanol / water)

log Pow: approx. 8.38 (value calculated)

## 12.4 Mobility in soil

Dissemination about environmental compartments:

Hexamethylene-1,6-diisocyanate homopolymer

Adsorption / soil

Does not apply

Surface tension

approx. 46.5 mN / m at 20 ° C

Dissemination in the environment

Hexamethylene-1,6-diisocyanate

homopolymer Does not apply

## 12.5 Results of PBT and vPvB assessment

Hexamethylene-1,6-diisocyanate homopolymer

This substance does not meet the criteria for classification as PBT or vPvB.

## 12.6 Additional information on ecotoxicology

Isocyanate reacts at the interface with water, forming CO<sub>2</sub> and a solid, insoluble substance with a high melting point (polyurea). This reaction is accelerated by surfactants (eg cleaning agents) or water-soluble solvents. Previous experiences teach that polyurea is inert and not degradable.

## 13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with applicable international, national and local laws, regulations and statutes. Use the correct code within the EC according to the European Waste List (EAC) .

### 13.1 Waste treatment methods

After removal of the product, all residues must be removed from the packaging (drops, powder and paste) . As soon as the product residues on the inner sides of the packaging have been rendered harmless, the product and the hazard labels must be invalidated. These packagings can be returned for recycling to the centers that have been set up for this purpose within the framework of the existing chemical recycling programs. Packaging must be recycled in accordance with national legislation and environmental legislation.

Do not discharge through the sewer system.

## 14. INFORMATION REGARDING TRANSPORT

### ADR / RID

14.1 UN number: Non-dangerous goods

14.2 Proper shipping name in accordance with the Model regulations of the UN: Non-dangerous goods

14.3 Transport hazard class (es) : Not dangerous goods 14.4 Packing group: Not dangerous goods

14.5 Environmental hazards: Not dangerous goods

### ADN

14.1 UN number: Non-dangerous goods

14.2 Proper shipping name in accordance with the Model regulations of the UN: Non-dangerous goods

14.3 Transport hazard class (es) : Not dangerous goods

14.4 Packing group: Not dangerous goods

14.5 Environmental hazards: Not dangerous goods

## IATA

14.1 UN number: Non-dangerous goods

14.2 Proper shipping name in accordance with the  
Model regulations of the UN: Non-dangerous goods

14.3 Transport hazard class (es) : Not dangerous goods

14.4 Packing group: Not dangerous goods

14.5 Environmental hazards: Not dangerous goods

## IMDG

14.1 UN number: Non-dangerous goods

14.2 Proper shipping name in accordance with the  
Model regulations of the UN: Non-dangerous goods

14.3 Transport hazard class (es) : Not dangerous goods

14.4 Packing group: Not dangerous goods

14.5 Environmental hazards: Not dangerous goods

14.6 Special precautions for the  
user See section 6-8

Additional advice: No dangerous transport goods

Protect from moisture. Heat sensitive from +50 ° C

Keep separate from foodstuffs and stimulants, acids and alkalis.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Does not  
apply

## 15. STATICALLY MANDATORY INFORMATION

15.1 Specific safety, health and environmental regulations and legislation for the substance  
or mixture

Directive 2012/18 / EU on the control of hazards of serious accidents with hazardous  
substances.

Does not apply

Water pollution class (Germany)

1 slightly polluting (according to appendix 4 VwVwS)

Observe all applicable national guidelines for the processing of isocyanate.

Other laws and regulations

The European Commission for the Association of Paint and Printing Ink Manufacturers (CEPE) provides the following information on coatings containing isocyanates: ready-to-use paint with isocyanates can have an irritating effect on the mucous membranes, in particular on the respiratory organs, and may result in hypersensitivity reactions. . The inhalation of vapors or spray mists may cause sensitization. When processing paint with isocyanates, all precautions necessary for solvent-based paint must be taken. In particular, vapors and spray mist should not be inhaled. Allergists, asthmatics and people with respiratory problems should not work with paint containing isocyanates.

15.2 Chemical safety assessment

A chemical safety assessment has been carried out

for: Hexamethylene-1,6-diisocyanate homopolymer

## 16. OTHER INFORMATION

Full text of H-statements referred to under headings 2 and 3 of the CLP (1272/2008 / EC) classification

H302 Harmful if swallowed

H315 Causes skin irritation

H317 May cause an allergic skin reaction

H319 Causes serious eye irritation

H330 Fatal if inhaled

H332 Harmful if inhaled

H334 May cause allergy-pharyngeal symptoms or breathing difficulties if inhaled

H335 May cause respiratory irritation.

The most recent revisions are marked in bold on the right side of the document.

Verduren asks each customer or recipient of this Safety Data Sheet (SDS) to read it carefully and, if necessary, consult the appropriate experts to understand the data contained in this SDS and to be aware of the dangers that the product entails. The information in this document is given in good faith and is believed to be accurate on the creation date of this document.

However, no explicit or implicit guarantee is given. Legal provisions may change and they may be different depending on the country. It is the responsibility of the buyer / user to ensure that his activities are in accordance with all local legal provisions. The information in this document only relates to the product as it is shipped.

Since the circumstances in which the product is used can not be checked by the manufacturer, the buyer / user must determine the circumstances in which the product can be used in complete safety. Because of the proliferation of information sources, such as Material Safety Data Sheets (SDSs) from different producers, we are not responsible and we can not be responsible for Safety Data Sheets obtained through other sources. If you have received a Safety Data Sheet from another source, or if you are not sure that you are in possession of the latest version of a Safety Data Sheet, please contact us.