

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 16.02.2018

Version number 2

Revision: 16.02.2018

SECTION 1: Identification of the substance/mixture and of the company/undertaking

· **1.1 Product identifier**

· Trade name: **355 LiquidDesign Finish - Component B**

· Article number: 355-B

· **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.

· **Application of the substance / preparation** *Lacquer*

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

· **Manufacturer/Supplier:**

Forbo Eurocol Nederland B.V.

Industrieweg 1-2

NL-1521 NA Wormerveer Holland

Tel. +31 75 6271600 - Fax +31 75 6283564

E-mail address: info.eurocol@forbo.com

Website: www.eurocol.com

· **1.4 Emergency telephone number:**

In case of emergency please contact the Dutch National Poison Control, telephone number: 0031-(0)30-2748888. (This number is only accessible to the physician treating the patient and only in case of accidental poisoning).

SECTION 2: Hazards identification

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

· **Classification according to Regulation (EC) No 1272/2008**

Acute Tox. 4 H332 Harmful if inhaled.

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

STOT SE 3 H335 May cause respiratory irritation.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

· **2.2 Label elements**

· **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

· **Hazard pictograms**



GHS07

· **Signal word** *Warning*

· **Hazard-determining components of labelling:**

Aliphatic Polyisocyanate

hexamethylene-di-isocyanate

(Contd. on page 2)

GB

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 16.02.2018

Version number 2

Revision: 16.02.2018

Trade name: 355 LiquidDesign Finish - Component B

(Contd. of page 1)

Hazard statements

- H332 Harmful if inhaled.
 H317 May cause an allergic skin reaction.
 H335 May cause respiratory irritation.
 H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

- P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
 P280 Wear protective gloves.
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P321 Specific treatment (see on this label).
 P405 Store locked up.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Additional information:

Contains isocyanates. May produce an allergic reaction.

2.3 Other hazards

Results of PBT and vPvB assessment

- PBT:** Not applicable.
vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

3.2 Chemical characterisation: Mixtures

Description: Aqueous plastic dispersion

Dangerous components:

CAS: 160994-68-3	Aliphatic Polyisocyanate  Acute Tox. 4, H332; Skin Sens. 1, H317; STOT SE 3, H335; Aquatic Chronic 3, H412	>50-100%
CAS: 822-06-0 EINECS: 212-485-8 RTECS: MO 1740000	hexamethylene-di-isocyanate  Acute Tox. 3, H311; Acute Tox. 3, H331;  Resp. Sens. 1, H334;  Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335	< 1.0%

Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

After inhalation:

In case of unconsciousness place patient stably in side/recovery position for transportation.
 Take affected persons into fresh air and keep quiet.
 Seek medical treatment in case of complaints.

After skin contact:

Immediately remove contaminated clothing, wash with water and soap and rinse thoroughly.
 If skin irritation continues, consult a doctor.

(Contd. on page 3)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 16.02.2018

Version number 2

Revision: 16.02.2018

Trade name: 355 LiquidDesign Finish - Component B

(Contd. of page 2)

- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**
*Do not induce vomiting; call for medical help immediately.
Rinse mouth with water and consult physician immediately.*
- **4.2 Most important symptoms and effects, both acute and delayed**
Harmful if inhaled. May cause an allergic skin reaction. May cause respiratory irritation.
- **4.3 Indication of any immediate medical attention and special treatment needed**
In case of accident or if you feel unwell, seek medical advice immediately (if possible show the label).

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** *Foam. Dry powder. Carbon dioxide. Spraying of water. Sand.*
- **For safety reasons unsuitable extinguishing agents:** *Water with full jet*
- **5.2 Special hazards arising from the substance or mixture**
On burning: release of toxic and corrosive gases / vapors (isocyanates, nitrous vapors, carbon monoxide / carbon dioxide). Hydrogen cyanide (prussic acid).
- **5.3 Advice for firefighters**
- **Protective equipment:**
*Wear self-contained respiratory protective device.
Wear fully protective suit.*
- **Additional information**
*Collect contaminated fire fighting water separately. It must not enter the sewage system.
Cool endangered receptacles with water spray.*

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
*Wear protective equipment. Keep unprotected persons away.
Particular danger of slipping on leaked/spilled product.
Keep away from ignition sources.
Use personal protective equipment. Avoid contact with skin and eyes. Do not inhale vapours.*
- **6.2 Environmental precautions:**
*Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.*
- **6.3 Methods and material for containment and cleaning up:**
*Dispose contaminated material as waste according to item 13.
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.*
- **6.4 Reference to other sections**
*See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.*

GB

(Contd. on page 4)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 16.02.2018

Version number 2

Revision: 16.02.2018

Trade name: **355 LiquidDesign Finish - Component B**

(Contd. of page 3)

SECTION 7: Handling and storage

· **7.1 Precautions for safe handling**

Remove all sources of ignition.

Keep away from heat and direct sunlight.

Ensure good ventilation/exhaustion at the workplace.

· **Information about fire - and explosion protection:** *Assure good ventilation / suction on the work place.*

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

· **Storage:**

· **Requirements to be met by storerooms and receptacles:**

Cool but frost-free place in a closed container.

Keep only in the original container.

Protect against heat and direct sunlight.

· **Information about storage in one common storage facility:**

Do not store together with alkalis (caustic solutions).

Do not store together with acids.

· **Further information about storage conditions:**

Recommended storage temperature between 10 and 30 °C.

· **7.3 Specific end use(s)** *No further relevant information available.*

SECTION 8: Exposure controls/personal protection

· **Additional information about design of technical facilities:** *No further data; see item 7.*

· **8.1 Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**

822-06-0 hexamethylene-di-isocyanate

WEL Short-term value: 0.07 mg/m³

Long-term value: 0.02 mg/m³

Sen; as -NCO

· **Additional information:** *The lists valid during manufacture were used as basis.*

· **8.2 Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.

Keep away from foodstuffs, beverages and feed.

Do not eat, drink, smoke or sniff while working.

Avoid contact with the eyes and skin.

Do not breathe vapour.

Wash hands before breaks and at the end of work.

Immediately remove all soiled and contaminated clothing

· **Respiratory protection:**

Wear gas mask with filter type A when the concentration in air is above exposure limit.

· **Protection of hands:**



Protective gloves

(Contd. on page 5)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 16.02.2018

Version number 2

Revision: 16.02.2018

Trade name: 355 LiquidDesign Finish - Component B

(Contd. of page 4)

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material is dependant on the penetration times, rates of diffusion and degradation.

· **Material of gloves**

The selection of suitable gloves does not only depend on the material, but also on further aspects of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be established by the manufacturer of the protective gloves and has to be observed.

· **For prolonged contact gloves made of the following materials are suitable: Fluorocarbon rubber (Viton)**

· **Eye protection:**



Tightly sealed goggles

· **Body protection:** Protective work clothing

SECTION 9: Physical and chemical properties

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

· **General Information**

· **Appearance:**

· Form:	Fluid
· Colour:	Colourless
· Odour:	Characteristic
· Odour threshold:	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

· Melting point/freezing point:	Undetermined.
· Initial boiling point and boiling range:	Undetermined.

· **Flash point:** Not applicable.

· **Flammability (solid, gas):** Not applicable.

· **Ignition temperature:**

· **Decomposition temperature:** Not determined.

· **Auto-ignition temperature:** Product is not self-igniting.

· **Explosive properties:** Product does not present an explosion hazard.

· **Explosion limits:**

· Lower:	Not determined.
· Upper:	Not determined.

· **Vapour pressure:** Not determined.

· **Density:** Not determined.

· **Relative density:** Not determined.

(Contd. on page 6)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 16.02.2018

Version number 2

Revision: 16.02.2018

Trade name: **355 LiquidDesign Finish - Component B**

(Contd. of page 5)

· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with water:	Not determined.
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

· 10.1 Reactivity

On burning: release of toxic and corrosive gases / vapors (isocyanates, nitrous vapors, carbon monoxide / carbon dioxide). Hydrogen cyanide (prussic acid).

· 10.2 Chemical stability

· Thermal decomposition / conditions to be avoided: *Not determined.*

· 10.3 Possibility of hazardous reactions *Not determined.*

· 10.4 Conditions to avoid *Extreme high or low temperatures. Protect against direct sunlight.*

· 10.5 Incompatible materials: *Strong acids. Strong bases.*

· 10.6 Hazardous decomposition products: *Fume. Carbon monoxide. Carbon dioxide.*

SECTION 11: Toxicological information

· 11.1 Information on toxicological effects

· Acute toxicity

Harmful if inhaled.

· LD/LC50 values relevant for classification:

160994-68-3 Aliphatic Polyisocyanate

Oral	LD50	>2000 mg/kg (rat)
------	------	-------------------

822-06-0 hexamethylene-di-isocyanate

Oral	LD50	738 mg/kg (rat)
------	------	-----------------

Dermal	LD50	593 mg/kg (rat)
--------	------	-----------------

· Primary irritant effect:

· Skin corrosion/irritation *Based on available data, the classification criteria are not met.*

· Serious eye damage/irritation *Based on available data, the classification criteria are not met.*

· Respiratory or skin sensitisation

May cause an allergic skin reaction.

· CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

· Germ cell mutagenicity *Based on available data, the classification criteria are not met.*

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

· Reproductive toxicity *Based on available data, the classification criteria are not met.*

· STOT-single exposure

May cause respiratory irritation.

· STOT-repeated exposure *Based on available data, the classification criteria are not met.*

(Contd. on page 7)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 16.02.2018

Version number 2

Revision: 16.02.2018

Trade name: **355 LiquidDesign Finish - Component B**

· **Aspiration hazard** Based on available data, the classification criteria are not met.

(Contd. of page 6)

SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic toxicity:

160994-68-3 Aliphatic Polyisocyanate

LC50/96h	28.3 mg/l (BR)
ErC50/72 h	>77.4 mg/l (Selenanastrum capricornutum)
EC50/48 h	>100 mg/l (DM)

· **12.2 Persistence and degradability** No further relevant information available.

· **12.3 Bioaccumulative potential** No further relevant information available.

· **12.4 Mobility in soil** No further relevant information available.

· Ecotoxicological effects:

· **Remark:** Harmful to fish

· Additional ecological information:

· **General notes:** Harmful to aquatic organisms

· 12.5 Results of PBT and vPvB assessment

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

· 13.1 Waste treatment methods

· Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system. Dispose to a chemical waste collection point.

· Uncleaned packaging:

· **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

· 14.1 UN-Number

· **ADR, ADN, IMDG, IATA** Void

· 14.2 UN proper shipping name

· **ADR, ADN, IMDG, IATA** Void

· 14.3 Transport hazard class(es)

· **ADR, ADN, IMDG, IATA**

· **Class** Void

· 14.4 Packing group

· **ADR, IMDG, IATA** Void

(Contd. on page 8)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 16.02.2018

Version number 2

Revision: 16.02.2018

Trade name: **355 LiquidDesign Finish - Component B**

(Contd. of page 7)

· 14.5 Environmental hazards:	<i>Not applicable.</i>
· 14.6 Special precautions for user	<i>Not applicable.</i>
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	<i>Not applicable.</i>
· UN "Model Regulation":	<i>Void</i>

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- Directive 2012/18/EU
- **Named dangerous substances - ANNEX I** *None of the ingredients is listed.*
- **REGULATION (EC) No 1907/2006 ANNEX XVII** *Conditions of restriction: 3*

- **National regulations:**

- **Waterhazard class:** *Water hazard class 1 (Self-assessment): slightly hazardous for water.*

- **Other regulations, limitations and prohibitive regulations**

- **Substances of very high concern (SVHC) according to REACH, Article 57**

None of the ingredients is listed.

- **15.2 Chemical safety assessment:** *A Chemical Safety Assessment has not been carried out.*

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**

H302 Harmful if swallowed.

H311 Toxic in contact with skin.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H331 Toxic if inhaled.

H332 Harmful if inhaled.

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

H335 May cause respiratory irritation.

H412 Harmful to aquatic life with long lasting effects.

- **Department issuing SDS:** *R&D department*

- **Contact:** *Ing. T.W. Breeuwer*

- **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

(Contd. on page 9)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 16.02.2018

Version number 2

Revision: 16.02.2018

Trade name: 355 LiquidDesign Finish - Component B

(Contd. of page 8)

*LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent**PBT: Persistent, Bioaccumulative and Toxic**SVHC: Substances of Very High Concern**vPvB: very Persistent and very Bioaccumulative**Acute Tox. 3: Acute toxicity – Category 3**Acute Tox. 4: Acute toxicity – Category 4**Skin Irrit. 2: Skin corrosion/irritation – Category 2**Eye Irrit. 2: Serious eye damage/eye irritation – Category 2**Resp. Sens. 1: Respiratory sensitisation – Category 1**Skin Sens. 1: Skin sensitisation – Category 1**STOT SE 3: Specific target organ toxicity (single exposure) – Category 3**Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3***. * Data compared to the previous version altered.**

GB