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# Bona Traffic HD

## Technical data sheet

The world's toughest and fastest drying lacquer for wooden floors exposed to extreme wear allowing full traffic to be resumed in just 12 hours. Used in hotels, restaurants and airports worldwide, where short downtime is essential. Waterborne and very low VOC and odor. Clear, non-yellowing lacquer perfected for wooden floors.

- Ultimate speed and durability
- Allows full traffic after 12 hours
- Easy and safe to apply
- Very low odour
- GreenGuard Gold certified for very low indoor emissions. Recommended for schools and nurseries.
- EC1R<sup>Plus</sup> classified for very low emissions (the industry's most stringent standard on indoor emissions).
- Very low solvent content (VOC), <5%.



### Technical data

Type of lacquer:	2-component waterborne polyurethane topcoat
Solids content:	32%
VOC:	max 52 g/litre (incl. hardener)
Resistance to wear:	1-2 mg/100 revolutions (SIS 923509)
Sheen (at 60°):	Silkmatt 40%, Matt 20%, Extra Matt 11%
Mixing ratio:	1 part Traffic HD Hardener to 1 litre Traffic HD (8 vol%)
Pot life:	4 hours at 20°C (shorter if warmer)
Dilution:	If required, dilute with 4% Bona Retarder for a longer open time
Drying time, until:	- Ready for sanding/recoating: 2-3 hours* - Full use: 12 hours* - Possible to cover: 3 days* <i>*under normal climate conditions, 20 °C/60% R.H.</i>
Application tools:	Bona Roller
Application rate:	8-10 m <sup>2</sup> /litre (120-100g/m <sup>2</sup> ) per coat
Safety	Lacquer: Unclassified Hardener: Classified (see Safety Data Sheet)
Cleaning:	Wipe tools free from residual material before cleaning with a minimum of water. Dried material can be removed with acetone.
Shelf life:	1 year from date of production in unopened original container
Storage/transport:	The temperature must not fall below +5°C or exceed +25°C during storage and transport.
Disposal:	Wastes and emptied containers should be handled in accordance with local regulations.
Pack size	3 x 4.95 litres incl. hardener (36 boxes per pallet)
Certifications:	GreenGuard Gold EMICODE; class EC1R <sup>Plus</sup> DIBt; safe building product EN 14904:2006; approved friction for sports floors DIN 18032:2; approved friction for sports floors EN 13501-1; Reaction to fire

Finishing



**NB: Samples of products are supplied without their hardeners. This has no impact on the final appearance, but products will not reflect their intended durability when used without hardener.**

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### Preparations

Prior to application the surface must be pre-treated with a waterborne primer from Bona. Ensure floor is acclimatized to its end-use environment, well sanded, dry and free from sanding dust, oil, wax and other contamination. Allow lacquer and hardener to reach room temperature.

Optimal application conditions are between 18-25°C and 30-60% relative air humidity. High temperatures and low humidity shorten, low temperatures and high humidity lengthen drying time. **Minimum temperature for use is 13°C.**

#### Preparation of previously lacquered floors

Bona Traffic HD Anti-slip has in general very good adhesion to factory pre-finished and previously lacquered floors but the surface must be carefully cleaned and abraded prior to overcoating. See separate guideline for overcoating recommendations.

### Treatment schedule

#### Untreated wood:

- 1x Bona Primer or Bona Craft Oil 2K
- 2x Bona Traffic HD

#### Previously lacquered surfaces:

- Cleaning and superficial abrasion
- 1-2x Bona Traffic HD

**NB:** Further coats of Bona Traffic HD may be applied in areas where very high levels of traffic are anticipated.

**NB:** It is not recommended to apply more than two full coats per day due to risk of excessive wood swelling. Ensure good ventilation during drying. Poor drying conditions may result in a weakened film with worsened adhesion.

### Application

1. Shake the Traffic HD can and add one bottle of Traffic HD Hardener. Immediately shake the mixture thoroughly for 1 minute and then insert the enclosed filter. If mixing smaller quantities of lacquer then pour the required amount of lacquer into a separate can. 1 litre of lacquer corresponds to one part of hardener. 2 litres to two parts a.s.o. The mixture of lacquer/hardener should be used directly or at least within 4 hours.
2. Apply the lacquer using a Bona Roller. Roll with a smooth, flowing motion alternately across and with the grain of the wood avoiding accumulations of product. Always maintain a "wet edge" to avoid overlaps. Allow to dry properly before applying further layers. Anticipate slightly longer drying time for each layer that is applied.
3. If necessary make an intermediate sanding using a screen or the Bona Scrad System grit P150 (or finer) and remove dust before applying a final layer of lacquer.  
**Note:** If the previous layer of lacquer has been allowed more than 24 hours drying time then an intermediate sanding is always required.

Floor will take light foot traffic approximately 8 hours after the final application and may be put into full use after 12 hours. Allow the surface to dry for at least 3 days before covering with carpets or other floor coverings. Also avoid placing heavy objects and avoid damp mopping the floor during this time.

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### Maintenance

Clean the floor with Bona Cleaner or Bona Wood Floor Cleaner and a microfibre pad. For maintenance and long term protection of the surface, floors can be overcoated at intervals with additional coats of lacquer. The frequency of this operation can be greatly reduced if Bona Freshen Up or Bona Wood Floor Refresher is applied periodically. This will restore the appearance of a dull floor whilst still allowing further coats of lacquer to be applied without the need for sanding the floor back to bare timber.

Note: The use of adhesive tape can damage the dry lacquer.

Detailed maintenance instructions are available at [www.bona.com/floorcare](http://www.bona.com/floorcare)

The information provided is prepared to the best of our current knowledge and makes no claim to be complete. User is responsible for establishing that the product and recommendations herein are fit for the designated purpose, wood type and present situation before use. Bona can only guarantee the delivered product. A professional and thereby successful application of the product is beyond our control. If in doubt make a preliminary test. User is required to read and understand all information contained on package labels and safety data sheets before using this product.

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# Overcoating instruction

Silver Treatment

Applying a new layer of lacquer to an already lacquered wooden floor is a cost efficient way to extend the lifetime of the floor and prevent major renovation interventions. The process involves deep cleaning of the surface, superficial abrasion and application of new lacquer. This removes deeply engrained dirt, scuff marks and superficial scratches, bringing new life to the floor.

For overcoating existing surfaces with lacquer we recommend to use:  
Bona Traffic HD, Bona Traffic HD Anti-slip, Bona Traffic and Bona Traffic Natural.

Preparation of the surface is key for making a successful overcoating and how to do this differs depending on the type of surface, condition and how it has been maintained over the years. This instruction is therefore divided in two sections. Scroll down to the one relevant for you.

- A. Newly installed, pre-finished flooring
- B. Lacquered wooden flooring that has been in use

## Important!

The floor should be in sound condition without deep damages, big gaps, cupped or loose tiles. If possible, make local repairs before overcoating or consider making a full resand and renovation instead.

## Recommended equipment:

- Bona FlexiSand equipped with Quattro- or Multidisc
- Intermediate pads
- Bona Diamond Abrasives grit 80 & 240
- Bona PowerScrubber with red brushes
- Bona Deep Clean Solution
- Eccentric sander(s) for corners and edges
- Clean microfiber pads

### A. Newly installed, pre-finished flooring

Newly installed factory pre-finished floors can normally be abraded directly without prior cleaning. Care should be taken not to contaminate the surface during installation.

1. Make sure the surface is clean. If necessary, clean using Bona PowerScrubber (red brushes) with diluted Bona Deep Clean Solution in the tank (10%). Pay attention not to leave puddles of cleaning solution.
2. Let surface dry.
3. Abrade the surface with Bona Diamond Abrasives grit 240. Attach the diamond discs to a multi- or quattrodisc with intermediate pads in between. Abrade corners and edges manually or with an eccentric sander.
4. To remove the fine dust you have two choices:
  - a. Clean the surface with Bona PowerScrubber using only clean water in the tank. Let surface dry.
  - b. Vacuum to remove loose sanding dust or wipe with Bona's Dusting Pad. Apply one thin layer of a Traffic HD/Traffic lacquer using a stainless steel trowel. Let dry approx. 30-60 minutes,
5. Apply 1-2 layers of Traffic HD/Traffic lacquer with roller or T-bar (8-10 m<sup>2</sup>/lit).

Finishing



## OVERALL STEPS

### Step 1



### Step 2



### Step 3



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# Overcoating instruction



## B. Lacquered wooden flooring that has been in use

Lacquered flooring that has been in use must be degreased before abrasion. Proper abrasion is key for successful adhesion of the subsequent layer of lacquer. If the floor has been maintained with wax or polish then it is important that all polish/wax is removed by the abrasion or it may serve as a weak link in the floor coating, increasing the risk for adhesion failure. Check the presence of polish/wax by scratching the surface with a coin. If material is easily removed from the surface then polish/wax is still present, continue abrading.

1. Degrease and clean the surface thoroughly using the Bona PowerScrubber (red brushes) and diluted Bona Deep Clean Solution in the tank (10%). Pay attention not to leave puddles of cleaning solution.
2. Let surface dry.
3. Abrade the surface with Bona Diamond Abrasives grit 80. Attach the diamond abrasive to a multi- or quattrodisc with intermediate pads in between. If the surface has polish/wax, then abrade until all polish has been removed. Scratch the surface frequently to check the presence of polish/wax. Abrade corners and edges manually. An eccentric sander is useful for this job.
4. Clean surface with the Bona PowerScrubber and clean water in the tank . Let surface dry.
5. Abrade the surface once more with Bona Diamond Abrasives grit 240.
6. To remove the fine dust you have two choices:
  - a. Clean the surface with Bona PowerScrubber using only clean water in the tank. Let surface dry.
  - b. Vacuum to remove loose sanding dust or wipe with Bona's Dusting Pad. Apply one thin layer of a Traffic HD/Traffic lacquer using a stainless steel trowel. Let dry approx. 30-60 minutes,
7. Apply 1-2 layers of Traffic HD/Traffic lacquer with roller or T-bar (8-10 m<sup>2</sup>/lit).

# SAFETY DATA SHEET



Bona Traffic HD

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

### 1.1 Product identifier

**Product name** : Bona Traffic HD  
**Product description** : 2-comp. waterborne finish for wooden floors

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

Identified uses
Professional application of coatings and inks by brush or roller

**1.3 Details of the supplier of the safety data sheet** : Bona AB  
 Box 210 74  
 SE-200 21 MALMÖ  
 SWEDEN  
 Tel. +46-(0)40-38 55 00

**e-mail address of person responsible for this SDS** : Environment@bona.com

**National contact** : Bona Limited  
 6 Thornton Chase, Linford Wood  
 Milton Keynes, MK14 6FD  
 Phone 01908 525150

### 1.4 Emergency telephone number

#### Supplier

**Telephone number** : +46 (0)40 385500  
**Hours of operation** : 8:00 - 16:00  
**Information limitations** : Information in English only!

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Product definition** : Mixture

#### Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Not classified.

The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 11 for more detailed information on health effects and symptoms.

### 2.2 Label elements

**Signal word** : No signal word.  
**Hazard statements** : No known significant effects or critical hazards.  
Precautionary statements  
**Prevention** : Not applicable.  
**Response** : Not applicable.  
**Storage** : Not applicable.  
**Disposal** : Not applicable.

## SECTION 2: Hazards identification

**Supplemental label elements** : Not applicable.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Not applicable.

### Special packaging requirements

**Containers to be fitted with child-resistant fastenings** : Not applicable.

**Tactile warning of danger** : Not applicable.

### 2.3 Other hazards

**Other hazards which do not result in classification** : None known.

## SECTION 3: Composition/information on ingredients

**3.2 Mixtures** : Mixture

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

**General** : In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and seek medical advice.

**Eye contact** : Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.

**Inhalation** : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

**Skin contact** : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.

**Ingestion** : If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do NOT induce vomiting.

**Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.

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

There are no data available on the mixture itself. The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.

Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

### 4.3 Indication of any immediate medical attention and special treatment needed

**Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.



## SECTION 4: First aid measures

**Specific treatments** : No specific treatment.

See toxicological information (Section 11)

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media** : Recommended: alcohol-resistant foam, CO<sub>2</sub>, powders, water spray.

**Unsuitable extinguishing media** : Do not use water jet.

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

**Hazards from the substance or mixture** : Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.

**Hazardous thermal decomposition products** : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

### 5.3 Advice for firefighters

**Special protective actions for fire-fighters** : Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses.

**Special protective equipment for fire-fighters** : Appropriate breathing apparatus may be required.

## SECTION 6: Accidental release measures

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

**For non-emergency personnel** : Avoid breathing vapour or mist. Refer to protective measures listed in sections 7 and 8.

**For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

### 6.2 Environmental precautions

: Do not allow to enter drains or watercourses. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

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

: Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Preferably clean with a detergent. Avoid using solvents.

### 6.4 Reference to other sections

: See Section 1 for emergency contact information.  
See Section 8 for information on appropriate personal protective equipment.  
See Section 13 for additional waste treatment information.

## SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

## SECTION 7: Handling and storage

**7.1 Precautions for safe handling** : Avoid contact with skin and eyes. Avoid inhalation of vapour, spray or mist. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Put on appropriate personal protective equipment (see Section 8). Never use pressure to empty. Container is not a pressure vessel. Always keep in containers made from the same material as the original one. Comply with the health and safety at work laws. Do not allow to enter drains or watercourses.

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

Store in accordance with local regulations.

#### Notes on joint storage

Keep away from: oxidising agents, strong alkalis, strong acids.

#### Additional information on storage conditions

Observe label precautions. Store in a dry, cool and well-ventilated area. Keep away from heat and direct sunlight.

Keep container tightly closed.

No smoking. Prevent unauthorised access. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

### 7.3 Specific end use(s)

**Recommendations** : Not available.

**Industrial sector specific solutions** : Not available.

## SECTION 8: Exposure controls/personal protection

The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 8.1 Control parameters

#### Occupational exposure limits

No exposure limit value known.

**Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

#### DNELs/DMELs

No DNELs/DMELs available.

#### PNECs

No PNECs available

### 8.2 Exposure controls

**Appropriate engineering controls** : Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and solvent vapours below the OEL, suitable respiratory protection must be worn.

#### Individual protection measures

## SECTION 8: Exposure controls/personal protection

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Use safety eyewear designed to protect against splash of liquids.

### Skin protection

#### Hand protection

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.

The breakthrough time must be greater than the end use time of the product.

The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.

Gloves should be replaced regularly and if there is any sign of damage to the glove material.

Always ensure that gloves are free from defects and that they are stored and used correctly.

The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance.

Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

**Gloves** : For prolonged or repeated handling, use the following type of gloves:

Recommended: nitrile rubber

The recommendation for the type or types of glove to use when handling this product is based on information from the following source:

The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.

**Body protection** : Personnel should wear antistatic clothing made of natural fibres or of high-temperature-resistant synthetic fibres.

**Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection** : If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators.

Dry sanding, flame cutting and/or welding of the dry paint film will give rise to dust and/or hazardous fumes. Wet sanding/flattening should be used wherever possible. If exposure cannot be avoided by the provision of local exhaust ventilation, suitable respiratory protective equipment should be used.

**Environmental exposure controls** : Do not allow to enter drains or watercourses.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

- Physical state** : Liquid.
- Colour** : White.
- Odour** : Not available.
- Odour threshold** : Not applicable.
- pH** : 8
- Melting point/freezing point** : 0°C
- Initial boiling point and boiling range** : 100°C
- Flash point** : Closed cup: >93,3°C

## SECTION 9: Physical and chemical properties

<b>Evaporation rate</b>	: Not available.
<b>Flammability (solid, gas)</b>	: Not applicable.
<b>Upper/lower flammability or explosive limits</b>	: Not applicable.
<b>Vapour pressure</b>	: Not available.
<b>Vapour density</b>	: Not available.
<b>Relative density</b>	: 1,04
<b>Solubility(ies)</b>	: Soluble in the following materials: cold water and hot water.
<b>Partition coefficient: n-octanol/ water</b>	: Not applicable.
<b>Auto-ignition temperature</b>	: Not available.
<b>Decomposition temperature</b>	: Not applicable.
<b>Viscosity</b>	: Not available.
<b>Explosive properties</b>	: Not available.
<b>Oxidising properties</b>	: Not available.

### 9.2 Other information

**Solubility in water** : Not available.

No additional information.

## SECTION 10: Stability and reactivity

<b>10.1 Reactivity</b>	: No specific test data related to reactivity available for this product or its ingredients.
<b>10.2 Chemical stability</b>	: Stable under recommended storage and handling conditions (see Section 7).
<b>10.3 Possibility of hazardous reactions</b>	: Under normal conditions of storage and use, hazardous reactions will not occur.
<b>10.4 Conditions to avoid</b>	: When exposed to high temperatures may produce hazardous decomposition products.
<b>10.5 Incompatible materials</b>	: Keep away from the following materials to prevent strong exothermic reactions: oxidising agents, strong alkalis, strong acids.
<b>10.6 Hazardous decomposition products</b>	: Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

There are no data available on the mixture itself. The product is not classified as hazardous according to Regulation (EC) 1272/2008 as amended.

Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

#### Acute toxicity

**Conclusion/Summary** : Not available.

#### Acute toxicity estimates

## SECTION 11: Toxicological information

Not available.

### Irritation/Corrosion

**Conclusion/Summary** : Not available.

### Sensitisation

**Conclusion/Summary** : Not available.

### Mutagenicity

**Conclusion/Summary** : Not available.

### Carcinogenicity

**Conclusion/Summary** : Not available.

### Reproductive toxicity

**Conclusion/Summary** : Not available.

### Teratogenicity

**Conclusion/Summary** : Not available.

### Specific target organ toxicity (single exposure)

Not available.

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Not available.

**Other information** : Not available.

## SECTION 12: Ecological information

### 12.1 Toxicity

There are no data available on the mixture itself.  
Do not allow to enter drains or watercourses.

The mixture has been assessed following the summation method of the CLP Regulation (EC) No 1272/2008 and is not classified as hazardous to the environment.

**Conclusion/Summary** : Not available.

### 12.2 Persistence and degradability

**Conclusion/Summary** : Not available.

### 12.3 Bioaccumulative potential

Not available.

### 12.4 Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Mobility** : Not available.

### 12.5 Results of PBT and vPvB assessment

**PBT** : Not applicable.

**vPvB** : Not applicable.

**12.6 Other adverse effects** : No known significant effects or critical hazards.

## SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 13.1 Waste treatment methods

#### Product

- Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.
- Hazardous waste** : Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 2008/98/EC.
- Disposal considerations** : Do not allow to enter drains or watercourses. Dispose of according to all federal, state and local applicable regulations. If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned. For further information, contact your local waste authority.

#### European waste catalogue (EWC)

The European Waste Catalogue classification of this product, when disposed of as waste, is:

Waste code	Waste designation
08 01 12	waste paint and varnish other than those mentioned in 08 01 11

#### Packaging

- Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
- Disposal considerations** : Using information provided in this safety data sheet, advice should be obtained from the relevant waste authority on the classification of empty containers. Empty containers must be scrapped or reconditioned. Dispose of containers contaminated by the product in accordance with local or national legal provisions.
- Special precautions** : This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.  
None known.

## SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
<b>14.1 UN number</b>	Not regulated.	Not regulated.	Not regulated.	Not regulated.
<b>14.2 UN proper shipping name</b>	-	-	-	-
<b>14.3 Transport hazard class(es)</b>	-	-	-	-
<b>14.4 Packing group</b>	-	-	-	-
<b>14.5 Environmental hazards</b>	No.	No.	No.	No.

Bona Traffic HD

## SECTION 14: Transport information

<b>Additional information</b>	-	-	-	-
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**14.6 Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**14.7 Transport in bulk according to Annex II of Marpol and the IBC Code** : Not applicable.

## SECTION 15: Regulatory information

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

#### EU Regulation (EC) No. 1907/2006 (REACH)

##### Annex XIV - List of substances subject to authorisation

###### Annex XIV

None of the components are listed.

###### Substances of very high concern

None of the components are listed.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Not applicable.

#### Other EU regulations

**VOC** : The provisions of Directive 2004/42/EC on VOC apply to this product. Refer to the product label and/or technical data sheet for further information.

**VOC for Ready-for-Use Mixture** : 2004/42/EC - IIA/j: 140g/l (2010). <= 140g/l VOC.

**Europe inventory** : Not determined.

#### Ozone depleting substances (1005/2009/EU)

Not listed.

#### Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

#### Seveso Directive

This product is not controlled under the Seveso Directive.

#### National regulations

**Industrial use** : The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation. The provisions of the national health and safety at work regulations apply to the use of this product at work.

#### International regulations

##### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

##### Montreal Protocol (Annexes A, B, C, E)

Not listed.

##### Stockholm Convention on Persistent Organic Pollutants

Not listed.

##### Rotterdam Convention on Prior Informed Consent (PIC)

## SECTION 15: Regulatory information

Not listed.

### [UNECE Aarhus Protocol on POPs and Heavy Metals](#)

Not listed.

### [International lists](#)

#### [National inventory](#)

<b>Australia</b>	: Not determined.
<b>Canada</b>	: At least one component is not listed in DSL but all such components are listed in NDSL.
<b>China</b>	: Not determined.
<b>Japan</b>	: <b>Japan inventory (ENCS)</b> : Not determined. <b>Japan inventory (ISHL)</b> : Not determined.
<b>Malaysia</b>	: Not determined.
<b>New Zealand</b>	: All components are listed or exempted.
<b>Philippines</b>	: Not determined.
<b>Republic of Korea</b>	: Not determined.
<b>Taiwan</b>	: Not determined.
<b>Turkey</b>	: Not determined.
<b>United States</b>	: All components are listed or exempted.

**15.2 Chemical safety assessment** : No Chemical Safety Assessment has been carried out.

## SECTION 16: Other information

**CEPE code** : 8

✔ Indicates information that has changed from previously issued version.

**Abbreviations and acronyms** :

- ATE = Acute Toxicity Estimate
- CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
- DMEL = Derived Minimal Effect Level
- DNEL = Derived No Effect Level
- EUH statement = CLP-specific Hazard statement
- PBT = Persistent, Bioaccumulative and Toxic
- PNEC = Predicted No Effect Concentration
- RRN = REACH Registration Number
- vPvB = Very Persistent and Very Bioaccumulative

### [Procedure used to derive the classification according to Regulation \(EC\) No. 1272/2008 \[CLP/GHS\]](#)

Classification	Justification
Not classified.	

### [Full text of abbreviated H statements](#)

Not applicable.

### [Full text of classifications \[CLP/GHS\]](#)

Not applicable.

**Date of printing** : 2018-02-07.

**Date of issue/ Date of revision** : 2018-02-02

**Date of previous issue** : No previous validation

**Version** : 1

### [Notice to reader](#)



## SECTION 16: Other information

The information in this Safety Data Sheet is based on the present state of knowledge and current legislation. It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications. The product should not be used for purposes other than those shown in Section 1 without first referring to the supplier and obtaining written handling instructions. As the specific conditions of use of the product are outside the supplier's control, the user is responsible for ensuring that the requirements of relevant legislation are complied with. The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation.

WT1553,  
WT1556,  
WT1558,  
WT1559



ROK ZAŁOŻENIA  
ESTABLISHED IN  
1952

# INSTYTUT TECHNOLOGII DREWNA

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JEDNOSTKA NOTYFIKOWANA NR 1583 • NOTIFIED BODY No. 1583

A-942-BOŚ/2012

Poznań, 2 July 2012

## Reaction to fire classification report

### 1 Introduction

This classification report defines the classification assigned to the flooring consisting of a 12-millimetre-thick fire-resistant EUROSPAN® Flammex particleboard of class B<sub>fl</sub> covered with 3 layers of **Bona Traffic HD** top coating, in accordance with the procedures given in EN 13501-1:2007.

## CLASSIFICATION OF REACTION TO FIRE IN ACCORDANCE WITH EN 13501-1:2007

<b>Sponsor:</b>	Bona AB Murmansgatan 130 SE-200 21 Malmö Sweden
<b>Prepared by:</b>	Wood Technology Institute (Instytut Technologii Drewna) ul. Winiarska 1 PL-60-654 Poznań Poland
<b>Notified Body No.:</b>	1583
<b>Product name:</b>	flooring consisting of a 12-millimetre-thick fire-resistant EUROSPAN® Flammex particleboard of class B <sub>fl</sub> covered with 3 layers of <b>Bona Traffic HD</b> top coating
<b>Classification report No.:</b>	13/2012
<b>Issue number:</b>	1
<b>Date of issue:</b>	2 July 2012

This classification report consists of four pages and may only be used or reproduced in its entirety.



AC 098

CERTYFIKAT AKREDYTACJI  
JEDNOSTKI CERTYFIKUJĄCEJ WYROBY  
ACCREDITATION CERTIFICATE  
FOR PRODUCT CERTIFICATION BODY



AB 088

CERTYFIKAT AKREDYTACJI  
LABORATORIUM BADAWCZEGO  
ACCREDITATION CERTIFICATE  
OF TESTING LABORATORY



MEDAL IM. MICHAŁA OCZAPOWSKIEGO  
MICHAŁ OCZAPOWSKI MEDAL



POLSKA PLATFORMA TECHNOLOGICZNA  
SEKTORA LEŚNO-DRZEWNEGO  
POLISH TECHNOLOGY PLATFORM  
FOR FORESTRY AND WOOD SECTOR

## 2 Details of classified product

### 2.1 General

The product, flooring consisting of a 12-millimetre-thick fire-resistant EUROSPAN® Flammex particleboard of class B<sub>fl</sub> covered with 3 layers of **Bona Traffic HD** top coating, is defined as a flooring.

### 2.2 Product description

The product, flooring consisting of a 12-millimetre-thick fire-resistant EUROSPAN® Flammex particleboard of class B<sub>fl</sub> covered with 3 layers of **Bona Traffic HD** top coating, is described below or is described in the reports provided in support of classification listed in 3.1.

Total thickness of particleboard	12 mm
Density of particleboard	660 kg/m <sup>3</sup>
Type of finish	two-component waterborne polyurethane finish
Application rate	100-120 g/m <sup>2</sup> per layer
Number of lacquer layers	3

## 3 Reports and results in support of this classification

### 3.1 Reports

Name of Laboratory	Name of sponsor	Report ref. no.	Test method and date Field of application rules and date
Wood, Wood-Based Materials, Packaging, Furniture, Wooden Constructions and Woodworking Machines Testing Laboratory of Wood Technology Institute in Poznań	Bona AB Murmansgatan 130 SE-200 21 Malmö Sweden	942/2012/S.K record no. 1/942/2012/S.K	EN ISO 9239-1 (radiant heat source method) 27 June 2012 direct application
Wood, Wood-Based Materials, Packaging, Furniture, Wooden Constructions and Woodworking Machines Testing Laboratory of Wood Technology Institute in Poznań	Bona AB Murmansgatan 130 SE-200 21 Malmö Sweden	942/2012/S.K record no. 2/942/2012/S.K	EN ISO 11925-2 (direct impingement of single flame method) 20 June 2012 direct application

### 3.2 Results

Test method and test number	Parameter	No. Tests	Results	
			Continuous parameter – mean (m)	Compliance with parameters
EN ISO 9239-1 (radiant heat source method) A-942-BOŚ/2012/6K	Critical heat flux (kW/m <sup>2</sup> )	3	9.92	(–)
	Smoke production (%·min)		11.41	(–)
EN ISO 11925-2 (direct impingement of single flame method) Exposure time: 15 s A-942-BOŚ/2012/7K	The flame spread $F_S \leq 150$ mm within 20 s from the time of application	6	(–)	COMPLIANT

(–): not applicable

## 4 Classification and field of application

### 4.1 Reference of classification

This classification has been carried out in accordance with EN 13501-1:2007.

### 4.2 Classification

The product, flooring consisting of a 12-millimetre-thick fire-resistant EUROSPAN® Flammex particleboard of class B<sub>fl</sub> covered with 3 layers of **Bona Traffic HD** top coating, in relation to its reaction to fire behaviour is classified:

**B<sub>fl</sub>**

The additional classification in relation to smoke production is:

**s1**

The format of the reaction to fire classification for floorings is:

Fire behaviour		Smoke production	
<b>B<sub>fl</sub></b>	-	<b>s</b>	<b>1</b>

ie.: **B<sub>fl</sub>-s1**

**Reaction to fire classification: B<sub>fl</sub>-s1**

### 4.3 Field of application

This classification is valid for the following product parameters:

- total thickness of particleboard: minimum 12 mm
- particleboard class: B<sub>fl</sub>

(Test report no. 942/2012/S.K of 2 July 2012)

The classification is valid for the following end use applications:

- The product used only on floorings or bases of fire-resistance classes A1<sub>fl</sub> and A2<sub>fl</sub>.
- The product used in a horizontal position with the exposed side up.
- The product used indoors.

## 5 Limitations

This classification document does not represent type approval or certification of the product.

This document is valid provided that neither the composition nor production technology of the product are changed.

**SIGNED**

**Jacek Pawłowski, M.Sc.**

*Jacek Pawłowski*

**APPROVED**

**Dr Hanna Wróblewska,  
Prof. of Wood Technology Institute**

**KIEROWNIK**  
Sekcji Badań Palności

*Hanna Wróblewska*

# EN 14904:2006 - Slip Test Work Sheet

Date of Test	2012-05-25
Operator	Erik Fosstveit
Slip Tester Calibration No.	C2418
Slip Tester Serial No.	SK1692
Date of Calibration	2012-05-16
Slider Type	CEN

Test Location	Bona Laboratory, Malmö
Substrate Description	WT1553
Date of Substrate Coating	2012-04-11
Contaminate Description	N/A
Surface Temperature	N/A

EN 14904:2006 requirement: 80-110 PTV

Traffic HD Silk matt					
Result	1	2	3	4	5
Measurement	90	86	88	86	86
PTV:	87				

Traffic HD Matt					
Result	1	2	3	4	5
Measurement	89	89	90	91	91
PTV:	90				

Traffic HD Extra Matt					
Result	1	2	3	4	5
Measurement	94	92	92	91	91
PTV:	92				

**Bona**<sup>®</sup>

# SAFETY DATA SHEET

**Bona**<sup>®</sup>

Bona Traffic HD Hardener

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

### 1.1 Product identifier

**Product name** : Bona Traffic HD Hardener  
**Product description** : Hardener. For professional users only.

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

Identified uses	
Professional application of coatings and inks by brush or roller	
Uses advised against	Reason
Consumer application of coatings	Safe use cannot be demonstrated.

**1.3 Details of the supplier of the safety data sheet** : Bona AB  
 Box 210 74  
 SE-200 21 MALMÖ  
 SWEDEN  
 Tel. +46-(0)40-38 55 00

**e-mail address of person responsible for this SDS** : Environment@bona.com

### 1.4 Emergency telephone number

#### Supplier

**Telephone number** : +46 (0)40 385500  
**Hours of operation** : 8:00 - 16:00  
**Information limitations** : Information in English only!

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Product definition** : Mixture

#### Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Acute Tox. 4, H332  
 Eye Irrit. 2, H319  
 Skin Sens. 1, H317  
 STOT SE 3, H335  
 Aquatic Chronic 3, H412

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

### 2.2 Label elements

**Hazard pictograms** :



**Signal word** : Warning

## SECTION 2: Hazards identification

- Hazard statements** :  Harmful if inhaled.  
 Causes serious eye irritation.  
 May cause an allergic skin reaction.  
 May cause respiratory irritation.  
 Harmful to aquatic life with long lasting effects.
- Precautionary statements**
- Prevention** : Wear protective gloves and eye or face protection: Avoid release to the environment.
- Response** : IF IN EYES: Rinse cautiously with water for several minutes. IF ON SKIN: Wash with plenty of soap and water. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell.
- Storage** :
- Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.
- Hazardous ingredients** :  Hexane, 1,6-diisocyanato-, homopolymer, polyethylene glycol mono-Me ether-blocked  
 Hexamethylene diisocyanate, oligomers
- Supplemental label elements** :  Contains isocyanates. May produce an allergic reaction.
- Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Not applicable.
- Special packaging requirements**
- Containers to be fitted with child-resistant fastenings** : Not applicable.
- Tactile warning of danger** : Not applicable.

### 2.3 Other hazards

- Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII** :  This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
- Other hazards which do not result in classification** : None known.

## SECTION 3: Composition/information on ingredients

**3.2 Mixtures** : Mixture

Product/ingredient name	Identifiers	%	Regulation (EC) No. 1272/2008 [CLP]	Type
<input checked="" type="checkbox"/> Hexane, 1,6-diisocyanato-, homopolymer, polyethylene glycol mono-Me ether-blocked	CAS: 160994-68-3	≥25 - ≤50	Acute Tox. 4, H332 Skin Sens. 1, H317 STOT SE 3, H335 Aquatic Chronic 3, H412	[1]
propylene carbonate	REACH #: 01-2119537232-48 EC: 203-572-1 CAS: 108-32-7 Index: 607-194-00-1	≥25 - ≤50	Eye Irrit. 2, H319	[1]
Hexamethylene diisocyanate, oligomers	REACH #: 01-2119485796-17 EC: 500-060-2	≥10 - ≤25	Acute Tox. 4, H332 Skin Sens. 1, H317 STOT SE 3, H335	[1]



**SECTION 3: Composition/information on ingredients**

	CAS: 28182-81-2		<b>See Section 16 for the full text of the H statements declared above.</b>
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There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

- [1] Substance classified with a health or environmental hazard  
 [2] Substance with a workplace exposure limit  
 [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII  
 [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII  
 [5] Substance of equivalent concern  
 [6] Additional disclosure due to company policy

Occupational exposure limits, if available, are listed in Section 8.

**SECTION 4: First aid measures****4.1 Description of first aid measures**

- General** : In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and seek medical advice.
- Eye contact** : Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.
- Inhalation** : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
- Skin contact** : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.
- Ingestion** : If swallowed, seek medical advice immediately and show the container or label. Keep person warm and at rest. Do NOT induce vomiting.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. 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**

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly. See Sections 2 and 3 for details.

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Based on the properties of the isocyanate components and considering toxicological data on similar mixtures, this mixture may cause acute irritation and/or sensitisation of the respiratory system, leading to an asthmatic condition, wheezing and tightness of the chest. Sensitised persons may subsequently show asthmatic symptoms when exposed to atmospheric concentrations well below the OEL. Repeated exposure may lead to permanent respiratory disability. Repeated or prolonged contact with irritants may cause dermatitis.

## SECTION 4: First aid measures

Contains Hexane, 1,6-diisocyanato-, homopolymer, polyethylene glycol mono-Me ether-blocked, Hexamethylene diisocyanate, oligomers. May produce an allergic reaction.

### 4.3 Indication of any immediate medical attention and special treatment needed

- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
- Specific treatments** : No specific treatment.

See toxicological information (Section 11)

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

- Suitable extinguishing media** : Recommended: alcohol-resistant foam, CO<sub>2</sub>, powders, water spray or mist.
- Unsuitable extinguishing media** : Do not use water jet.

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

- Hazards from the substance or mixture** : Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen, hydrogen cyanide, monomeric isocyanates.

### 5.3 Advice for firefighters

- Special protective actions for fire-fighters** : Cool closed containers exposed to fire with water. Do not release runoff from fire to drains or watercourses.
- Special protective equipment for fire-fighters** : Appropriate breathing apparatus may be required.

## SECTION 6: Accidental release measures

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

- For non-emergency personnel** : Exclude sources of ignition and ventilate the area. Avoid breathing vapour or mist. Refer to protective measures listed in sections 7 and 8.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

### 6.2 Environmental precautions

- : Do not allow to enter drains or watercourses. If the product contaminates lakes, rivers, or sewers, inform the appropriate authorities in accordance with local regulations.

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

- : Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Place in a suitable container. The contaminated area should be cleaned immediately with a suitable decontaminant. One possible (flammable) decontaminant comprises (by volume): water (45 parts), ethanol or isopropyl alcohol (50 parts) and concentrated (d: 0,880) ammonia solution (5 parts). A non-flammable alternative is sodium carbonate (5 parts) and water (95 parts). Add the same decontaminant to the remnants and let stand for several days until no further reaction in an unsealed container. Once this stage is reached, close container and dispose of according to local regulations (see section 13).

## SECTION 6: Accidental release measures

- 6.4 Reference to other sections** : See Section 1 for emergency contact information.  
See Section 8 for information on appropriate personal protective equipment.  
See Section 13 for additional waste treatment information.

## SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

**Persons with a history of asthma, allergies or chronic or recurrent respiratory disease should not be employed in any process in which this product is used.**

**Examination of lung function should be carried out on a regular basis on persons spraying this mixture.**

- 7.1 Precautions for safe handling** : Prevent the creation of flammable or explosive concentrations of vapours in air and avoid vapour concentrations higher than the occupational exposure limits.  
In addition, the product should only be used in areas from which all naked lights and other sources of ignition have been excluded. Electrical equipment should be protected to the appropriate standard.  
Mixture may charge electrostatically: always use earthing leads when transferring from one container to another.  
Operators should wear antistatic footwear and clothing and floors should be of the conducting type.  
Care should be taken when re-opening partly-used containers. Precautions should be taken to minimise exposure to atmospheric humidity or water. CO<sub>2</sub> will be formed, which, in closed containers, could result in pressurisation. Keep away from heat, sparks and flame. No sparking tools should be used.  
Avoid contact with skin and eyes. Avoid the inhalation of dust, particulates, spray or mist arising from the application of this mixture. Avoid inhalation of dust from sanding.  
Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.  
Put on appropriate personal protective equipment (see Section 8).  
Never use pressure to empty. Container is not a pressure vessel.  
Always keep in containers made from the same material as the original one.  
Comply with the health and safety at work laws.  
Do not allow to enter drains or watercourses.  
**Information on fire and explosion protection**  
Vapours are heavier than air and may spread along floors. Vapours may form explosive mixtures with air.

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

Store in accordance with local regulations.

#### Notes on joint storage

Keep away from: oxidising agents, strong alkalis, strong acids.

#### Additional information on storage conditions

Observe label precautions. Store in a dry, cool and well-ventilated area. Keep away from heat and direct sunlight.

Keep container tightly closed.

Keep away from sources of ignition. No smoking. Prevent unauthorised access. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

### 7.3 Specific end use(s)

**Recommendations** : For professional users only.

**Industrial sector specific solutions** : For professional users only.

## SECTION 8: Exposure controls/personal protection

The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 8.1 Control parameters

#### Occupational exposure limits

No exposure limit value known.

**Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

#### DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
propylene carbonate	DNEL	Long term Oral	10 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	10 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	10 mg/m <sup>3</sup>	General population	Local
	DNEL	Long term Inhalation	17,4 mg/m <sup>3</sup>	General population	Systemic
	DNEL	Long term Dermal	20 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	20 mg/m <sup>3</sup>	Workers	Local
	DNEL	Long term Inhalation	70,53 mg/m <sup>3</sup>	Workers	Systemic

#### PNECs

No PNECs available

### 8.2 Exposure controls

**Persons with a history of asthma, allergies, chronic or recurrent respiratory disease should not be exposed to any process in which this product is used.**

**Examination of lung function should be carried out on a regular basis on persons spraying this mixture.**

**Appropriate engineering controls** : Provide adequate ventilation. Where reasonably practicable, this should be achieved by the use of local exhaust ventilation and good general extraction. Air-fed protective respiratory equipment must be worn by the spray operator, even when good ventilation is provided. In other operations, if local exhaust ventilation and good general extraction are not sufficient to maintain concentrations of particulates and solvent vapours below the OEL, suitable respiratory protection must be worn. (See Occupational exposure controls.)

#### Individual protection measures

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**SECTION 8: Exposure controls/personal protection**

**Eye/face protection** : Use safety eyewear designed to protect against splash of liquids.

**Skin protection****Hand protection**

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.

The breakthrough time must be greater than the end use time of the product.

The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.

Gloves should be replaced regularly and if there is any sign of damage to the glove material.

Always ensure that gloves are free from defects and that they are stored and used correctly.

The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance.

Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

**Gloves** : For prolonged or repeated handling, use the following type of gloves:

Recommended: nitrile rubber

The recommendation for the type or types of glove to use when handling this product is based on information from the following source:

The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.

**Body protection** : Personnel should wear antistatic clothing made of natural fibres or of high-temperature-resistant synthetic fibres.

**Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection** : By spraying: air-fed respirator.  
By other operations than spraying, in well ventilated areas, air-fed respirators could be replaced by a combination charcoal filter and particulate filter mask.

**Environmental exposure controls** : Do not allow to enter drains or watercourses.

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

<b>Physical state</b>	: Liquid.
<b>Colour</b>	: Colourless.
<b>Odour</b>	: Sweetish. [Slight]
<b>Odour threshold</b>	: Not applicable.
<b>pH</b>	: Not applicable.
<b>Melting point/freezing point</b>	: Not available.
<b>Initial boiling point and boiling range</b>	: Not available.
<b>Flash point</b>	: Closed cup: >120°C
<b>Evaporation rate</b>	: Not available.
<b>Flammability (solid, gas)</b>	: Not applicable.
<b>Upper/lower flammability or explosive limits</b>	: Not applicable.
<b>Vapour pressure</b>	: Not available.
<b>Vapour density</b>	: Not available.
<b>Relative density</b>	: 1,09

**SECTION 9: Physical and chemical properties**

<b>Solubility(ies)</b>	: Insoluble in the following materials: cold water and hot water.
<b>Partition coefficient: n-octanol/ water</b>	: Not applicable.
<b>Auto-ignition temperature</b>	: Not available.
<b>Decomposition temperature</b>	: Not applicable.
<b>Viscosity</b>	: Not available.
<b>Explosive properties</b>	: Not available.
<b>Oxidising properties</b>	: Not available.

**9.2 Other information**

<b>Solubility in water</b>	: Not available.
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**SECTION 10: Stability and reactivity**

<b>10.1 Reactivity</b>	: The product reacts slowly with water, resulting in the production of carbon dioxide.
<b>10.2 Chemical stability</b>	: Stable under recommended storage and handling conditions (see Section 7).
<b>10.3 Possibility of hazardous reactions</b>	: In closed containers, pressure build-up could result in distortion, expansion and, in extreme cases, bursting of the container.
<b>10.4 Conditions to avoid</b>	: In a fire, hazardous decomposition products may be produced.
<b>10.5 Incompatible materials</b>	: Keep away from: oxidising agents, strong alkalis, strong acids, amines, alcohols, water. Uncontrolled exothermic reactions occur with amines and alcohols.
<b>10.6 Hazardous decomposition products</b>	: Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, oxides of nitrogen, hydrogen cyanide, monomeric isocyanates.

**SECTION 11: Toxicological information****11.1 Information on toxicological effects**

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly. See Sections 2 and 3 for details.

Exposure to component solvent vapour concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin.

If splashed in the eyes, the liquid may cause irritation and reversible damage.

Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin, resulting in non-allergic contact dermatitis and absorption through the skin. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Based on the properties of the isocyanate components and considering toxicological data on similar mixtures, this mixture may cause acute irritation and/or sensitisation of the respiratory system, leading to an asthmatic condition, wheezing and tightness of the chest. Sensitised persons may subsequently show asthmatic symptoms when exposed to atmospheric concentrations well below the OEL. Repeated exposure may lead to permanent respiratory disability. Repeated or prolonged contact with irritants may cause dermatitis.

Contains Hexane, 1,6-diisocyanato-, homopolymer, polyethylene glycol mono-Me ether-blocked, Hexamethylene diisocyanate, oligomers. May produce an allergic reaction.

**Acute toxicity**

## SECTION 11: Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure
Hexane, 1,6-diisocyanato-, homopolymer, polyethylene glycol mono-Me ether-blocked propylene carbonate	LD50 Oral	Rat	>2000 mg/kg	-
	LD50 Dermal	Rabbit	>3000 mg/kg	-
Hexamethylene diisocyanate, oligomers	LD50 Oral	Rat	>5000 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat	18500 mg/m <sup>3</sup>	1 hours
	LD50 Dermal	Rabbit - Male, Female	>2000 mg/kg	-
	LD50 Dermal	Rat - Male, Female	>2000 mg/kg	-
	LD50 Oral	Rat - Female	5000 mg/kg	-

**Conclusion/Summary** : Not available.

### Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
Bona Traffic HD Hardener	N/A	N/A	N/A	N/A	3
Hexane, 1,6-diisocyanato-, homopolymer, polyethylene glycol mono-Me ether-blocked	N/A	N/A	N/A	N/A	1,5
Hexamethylene diisocyanate, oligomers	5000	N/A	N/A	N/A	4,625

### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
propylene carbonate	Eyes - Moderate irritant	Rabbit	-	60 milligrams	-
	Skin - Moderate irritant	Human	-	72 hours 100 milligrams Intermittent	-
Hexamethylene diisocyanate, oligomers	Skin - Moderate irritant	Rabbit	-	500 milligrams	-
	Skin - Mild irritant	Rabbit	-	-	-
	Eyes - Moderate irritant	Rabbit	-	100 milligrams	-
	Skin - Moderate irritant	Rabbit	-	500 milligrams	-

**Conclusion/Summary** : Not available.

### Sensitisation

Product/ingredient name	Route of exposure	Species	Result
Hexane, 1,6-diisocyanato-, homopolymer, polyethylene glycol mono-Me ether-blocked Hexamethylene diisocyanate, oligomers	skin	Guinea pig	Sensitising
	skin	Mouse	Sensitising
	skin	Guinea pig	Sensitising

**Conclusion/Summary** : Not available.

### Mutagenicity

**Conclusion/Summary** : Not available.

### Carcinogenicity

**Conclusion/Summary** : Not available.

**SECTION 11: Toxicological information****Reproductive toxicity****Conclusion/Summary** : Not available.**Teratogenicity****Conclusion/Summary** : Not available.**Specific target organ toxicity (single exposure)**

Product/ingredient name	Category	Route of exposure	Target organs
Hexane, 1,6-diisocyanato-, homopolymer, polyethylene glycol mono-Me ether-blocked	Category 3	Not applicable.	Respiratory tract irritation
Hexamethylene diisocyanate, oligomers	Category 3	Not applicable.	Respiratory tract irritation

**Specific target organ toxicity (repeated exposure)**

Not available.

**Aspiration hazard**

Not available.

**Other information** : Not available.**SECTION 12: Ecological information****12.1 Toxicity**

There are no data available on the mixture itself.  
Do not allow to enter drains or watercourses.

The mixture has been assessed following the summation method of the CLP Regulation (EC) No 1272/2008 and is classified for eco-toxicological properties accordingly. See Sections 2 and 3 for details.

Product/ingredient name	Result	Species	Exposure
Hexane, 1,6-diisocyanato-, homopolymer, polyethylene glycol mono-Me ether-blocked	Acute EC50 >100 mg/l	Daphnia	48 hours
propylene carbonate	Acute IC50 >100 mg/l Acute LC50 28,3 mg/l EC50 >500 mg/l	Algae Fish Aquatic plants	72 hours 96 hours 72 hours
Hexamethylene diisocyanate, oligomers	Acute EC50 >500 mg/l Acute LC50 5300 mg/l Acute EC50 >1000 mg/l	Daphnia Fish - Leuciscus Idu Algae	48 hours 96 hours 72 hours
	Acute EC50 >100 mg/l Acute LC50 >100 mg/l	Daphnia Fish	48 hours 96 hours

**Conclusion/Summary** : Not available.**12.2 Persistence and degradability****Conclusion/Summary** : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Hexane, 1,6-diisocyanato-, homopolymer, polyethylene glycol mono-Me ether-blocked	-	-	Not readily
propylene carbonate	-	-	Readily
Hexamethylene diisocyanate, oligomers	-	-	Not readily



**SECTION 12: Ecological information****12.3 Bioaccumulative potential**

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Propylene carbonate	-0,41	-	low
Hexamethylene diisocyanate, oligomers	5,54	367,7	low

**12.4 Mobility in soil**

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Mobility** : Not available.

**12.5 Results of PBT and vPvB assessment**

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

**12.6 Other adverse effects** : No known significant effects or critical hazards.

**SECTION 13: Disposal considerations**

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

**13.1 Waste treatment methods****Product**

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

**Hazardous waste** : Yes.

**Disposal considerations** : Do not allow to enter drains or watercourses. Residues in empty containers should be neutralised with a decontaminant (see section 6). Dispose of according to all federal, state and local applicable regulations. If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned. For further information, contact your local waste authority.

**European waste catalogue (EWC)**

The European Waste Catalogue classification of this product, when disposed of as waste, is:

Waste code	Waste designation
08 01 11*	waste paint and varnish containing organic solvents or other hazardous substances

**Packaging**

**Methods of disposal** : The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

**Disposal considerations** : Using information provided in this safety data sheet, advice should be obtained from the relevant waste authority on the classification of empty containers. Empty containers must be scrapped or reconditioned. Dispose of containers contaminated by the product in accordance with local or national legal provisions.

**Special precautions** : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spill material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 13: Disposal considerations

None known.

## SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
<b>14.1 UN number</b>	Not regulated.	Not regulated.	Not regulated.	Not regulated.
<b>14.2 UN proper shipping name</b>	-	-	-	-
<b>14.3 Transport hazard class(es)</b>	-	-	-	-
<b>14.4 Packing group</b>	-	-	-	-
<b>14.5 Environmental hazards</b>	No.	No.	No.	No.

**14.6 Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**14.7 Transport in bulk according to Annex II of Marpol and the IBC Code** : Not applicable.

## SECTION 15: Regulatory information

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

#### EU Regulation (EC) No. 1907/2006 (REACH)

##### Annex XIV - List of substances subject to authorisation

###### Annex XIV

None of the components are listed.

###### Substances of very high concern

None of the components are listed.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Not applicable.

#### Other EU regulations

**VOC** : Not available.

**VOC for Ready-for-Use Mixture** : Not applicable.

#### Ozone depleting substances (1005/2009/EU)

Not listed.

#### Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

#### Seveso Directive

This product is not controlled under the Seveso Directive.

## SECTION 15: Regulatory information

### National regulations

**Industrial use** : The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation. The provisions of the national health and safety at work regulations apply to the use of this product at work.

### International regulations

#### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

#### Montreal Protocol (Annexes A, B, C, E)

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

#### Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

#### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

**15.2 Chemical safety assessment** : No Chemical Safety Assessment has been carried out.

## SECTION 16: Other information

Indicates information that has changed from previously issued version.

### Abbreviations and acronyms

: ATE = Acute Toxicity Estimate  
 CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]  
 DMEL = Derived Minimal Effect Level  
 DNEL = Derived No Effect Level  
 EUH statement = CLP-specific Hazard statement  
 PBT = Persistent, Bioaccumulative and Toxic  
 PNEC = Predicted No Effect Concentration  
 RRN = REACH Registration Number  
 vPvB = Very Persistent and Very Bioaccumulative

### Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Acute Tox. 4, H332	Calculation method
Eye Irrit. 2, H319	Calculation method
Skin Sens. 1, H317	Calculation method
STOT SE 3, H335	Calculation method
Aquatic Chronic 3, H412	Calculation method

### Full text of abbreviated H statements

H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H412	Harmful to aquatic life with long lasting effects.

### Full text of classifications [CLP/GHS]

## SECTION 16: Other information

Acute Tox. 4, H332 Aquatic Chronic 3, H412 Eye Irrit. 2, H319 Skin Sens. 1, H317 STOT SE 3, H335	ACUTE TOXICITY (inhalation) - Category 4 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2 SKIN SENSITISATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (Respiratory tract irritation) - Category 3
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### Notice to reader

The information in this Safety Data Sheet is based on the present state of knowledge and current legislation. It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications. The product should not be used for purposes other than those shown in Section 1 without first referring to the supplier and obtaining written handling instructions. As the specific conditions of use of the product are outside the supplier's control, the user is responsible for ensuring that the requirements of relevant legislation are complied with. The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation.

H330 -0