

## SAFETY DATA SHEET

Blackfriar High Traffic Floor Paint - Activator

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

#### 1.1 Product identifier

**Product name** : Blackfriar High Traffic Floor Paint - Activator

**Product description** : Paint Hardener.

**Product type** : Liquid.

UFI : 89UA-4JN6-0NJW-2UD9

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

Professional use Industrial use	
Identified uses	

Uses advised against	Reason
Consumer use	Product is not intended for consumer use.

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

**RUST-OLEUM EUROPE** 

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Tor Coatings Limited

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Telephone no.: +44 (0) 191 4106611 Fax no.: +44 (0) 191 4920125 enquiries@tor-coatings.com

e-mail address of person : rpmeurohas@rustoleum.eu

responsible for this SDS

#### 1.4 Emergency telephone number

#### **National advisory body/Poison Centre**

**Supplier** 

Telephone number United Kingdom: : +44 870 8200418 / +44 2038073798

**Great Britain** 

Hours of operation : 24 / 7

#### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

**Product definition** : Mixture Classification according to UK CLP/GHS

Flam. Lig. 3, H226 Acute Tox. 4, H332

Skin Sens. 1, H317 **STOT SE 3, H335 STOT SE 3, H336** 

Aquatic Chronic 3, H412

The product is classified as hazardous according to UK CLP Regulation SI 2019/720 as amended.

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

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#### **SECTION 2: Hazards identification**

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

#### 2.2 Label elements

Hazard pictograms



Signal word : Warning

Hazard statements : H226 - Flammable liquid and vapour.

H317 - May cause an allergic skin reaction.

H332 - Harmful if inhaled.

H335 - May cause respiratory irritation. H336 - May cause drowsiness or dizziness.

H412 - Harmful to aquatic life with long lasting effects.

**Precautionary statements** 

General : Not applicable.

Prevention : P280 - Wear protective gloves.

P284 - In case of inadequate ventilation wear respiratory protection.

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition

sources. No smoking.

P271 - Use only outdoors or in a well-ventilated area.

**Response** : P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for

breathing.

P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated

clothing. Rinse skin with water.

Storage: P403 + P235 - Store in a well-ventilated place. Keep cool.

**Disposal** : P501 - Dispose of contents and container in accordance with all local, regional,

national and international regulations.

Hazardous ingredients : Hexamethylene diisocyanate, oligomers

n-butyl acetate

hexamethylene-di-isocyanate

**Supplemental label**: EUH066 - Repeated exposure may cause skin dryness or cracking.

elements EUH204 - Contains isocyanates. May produce an allergic reaction.

Supplemental label : Not applicable.

elements : Detergents -Regulation (EC) No

907/2006

: Not applicable.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and

articles
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.

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#### **SECTION 2: Hazards identification**

Other hazards which do not result in classification

: None known.

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

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Type
Hexamethylene diisocyanate, oligomers	REACH #: 01-2119485796-17 CAS: 28182-81-2	≥75 - ≤90	Acute Tox. 4, H332 Skin Sens. 1, H317 STOT SE 3, H335	[1]
n-butyl acetate	REACH #: 01-2119485493-29 EC: 204-658-1 CAS: 123-86-4 Index: 607-025-00-1	≥10 - ≤25	Flam. Liq. 3, H226 STOT SE 3, H336 EUH066	[1] [2]
hydrocarbons, aromatic, C9	EC: 265-199-0 CAS: 64742-95-6 Index: 649-356-00-4	≤5	Flam. Liq. 3, H226 STOT SE 3, H335 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411 EUH066	[1]
hexamethylene-di-isocyanate	REACH #: 01-2119457571-37 EC: 212-485-8 CAS: 822-06-0 Index: 615-011-00-1	<0,1	Acute Tox. 4, H302 Acute Tox. 1, H330 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Resp. Sens. 1, H334 Skin Sens. 1, H317 STOT SE 3, H335 See Section 16 for the full text of the H statements declared above.	[1] [2]

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

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

#### **SECTION 4: First aid measures**

#### 4.1 Description of first aid measures

**Eye contact** 

: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Inhalation

: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. 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.

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#### **SECTION 4: First aid measures**

Skin contact

Wash skin thoroughly with soap and water or use recognised skin cleanser. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse

Ingestion

: Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

**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

#### **Over-exposure signs/symptoms**

**Eve contact** 

: No specific data.

Inhalation : Adverse symptoms may include the following:

respiratory tract irritation

coughing

nausea or vomiting

headache

drowsiness/fatigue dizziness/vertigo unconsciousness

Skin contact : Adverse symptoms may include the following:

> irritation redness dryness cracking

Ingestion : No specific data.

#### 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.

## **SECTION 5: Firefighting measures**

#### 5.1 Extinguishing media

Suitable extinguishing media

: Use dry chemical, CO2, water spray (fog) or foam.

**Unsuitable extinguishing** 

media

: Do not use water jet.

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

Hazards from the substance or mixture Flammable liquid and vapour. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

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### SECTION 5: Firefighting measures

**Hazardous combustion** products

Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides

#### 5.3 Advice for firefighters

**Special protective actions** for fire-fighters

: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

**Special protective** equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to British standard BS EN 469 will provide a basic level of protection for chemical incidents.

**Additional information** 

: No unusual hazard if involved in a fire.

### SECTION 6: Accidental release measures

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

For non-emergency personnel

: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

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

: Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

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

**Small spill** 

: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

#### Large spill

: Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. 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.

#### 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.

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## **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).

#### 7.1 Precautions for safe handling

#### **Protective measures**

Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

# Advice on general occupational hygiene

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

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

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

#### **Seveso Directive - Reporting thresholds**

#### **Danger criteria**

	Notification and MAPP threshold	Safety report threshold
P5c	5000 tonne	50000 tonne

#### 7.3 Specific end use(s)

Recommendations : Not available.

Industrial sector specific : Not available.

solutions

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

#### 8.1 Control parameters

#### Occupational exposure limits

Product/ingredient name	Exposure limit values
n-butyl acetate	EH40/2005 WELs (United Kingdom (UK), 1/2020) STEL 15 minutes: 966 mg/m³. STEL 15 minutes: 200 ppm. TWA 8 hours: 724 mg/m³. TWA 8 hours: 150 ppm.
hexamethylene-di-isocyanate	EH40/2005 WELs (United Kingdom (UK), 1/2020) [isocyanates, all, except methyl isocyanate] Inhalation sensitiser.  STEL 15 minutes: 0,07 mg/m³ (as -NCO).  TWA 8 hours: 0,02 mg/m³ (as -NCO).

#### **Biological exposure indices**

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

No exposure indices known.

Recommended monitoring procedures

: Reference should be made to monitoring standards, such as the following: British Standard BS EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) British Standard BS EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) British Standard BS 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
Hexamethylene diisocyanate, oligomers	DNEL	Short term Inhalation	1 mg/m³	Workers	Local
oligo moro	DNEL	Long term Inhalation	0,5 mg/m³	Workers	Local
n-butyl acetate	DNEL	Long term Dermal	7 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Oral	3,4 mg/kg bw/day	General population [Consumers]	Systemic
	DNEL	Short term Inhalation	960 mg/m³	Workers	Systemic
	DNEL	Short term Inhalation	960 mg/m³	Workers	Local
	DNEL	Long term Inhalation	480 mg/m³	Workers	Systemic
	DNEL	Long term Inhalation	480 mg/m <sup>3</sup>	Workers	Local
	DNEL	Short term Inhalation	859,7 mg/ m <sup>3</sup>	General population [Consumers]	Systemic
	DNEL	Short term Inhalation	859,7 mg/ m³	General population [Consumers]	Local
	DNEL	Long term Inhalation	102,34 mg/ m³		Systemic
	DNEL	Long term Inhalation	102,34 mg/ m³	General population [Consumers]	Local
	DNEL	Long term Dermal	3,4 mg/kg bw/day	General population [Consumers]	Systemic
hydrocarbons, aromatic, C9	DNEL DNEL	Long term Dermal Long term Inhalation	25 mg/kg 150 mg/m³	Workers Workers	Systemic Systemic
	DNEL	Long term Dermal	11 mg/kg	General population	Systemic
	DNEL	Long term Inhalation	32 mg/m³	General population	Systemic
	DNEL	Long term Oral	11 mg/kg	General population	Systemic
hexamethylene-di-isocyanate	DNEL	Short term Inhalation	1 mg/m³	Workers	Local
	DNEL	Long term Inhalation	0,5 mg/m <sup>3</sup>	Workers	Local
	DNEL	Long term Inhalation	0,35 mg/m³	Workers	Local
	DNEL	Short term Inhalation	0,7 mg/m³	Workers	Local

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

#### **PNECs**

Product/ingredient name	Compartment Detail	Value	Method Detail
Hexamethylene diisocyanate, oligomers	Fresh water	0,199 mg/l	-
	Marine	0,0199 mg/l	-
	Fresh water sediment	44551 mg/kg dwt	-
	Marine water sediment	4455 mg/kg dwt	-
	Soil	8884 mg/kg dwt	-
	Sewage Treatment Plant	100 mg/l	-
n-butyl acetate	Fresh water	0,18 mg/l	-
	Marine	0,018 mg/l	-
	Fresh water sediment	0,981 mg/kg	-
	Marine water sediment	0,0981 mg/kg	-
	Soil	0,0903 mg/kg	-
	Sewage Treatment Plant	35,6 mg/l	-
hexamethylene-di-isocyanate	Fresh water	0,127 mg/l	-
,	Marine	0,0127 mg/l	-
	Sediment	266700 mg/kg dwt	-
	Soil	53182 mg/kg dwt	-
	Sewage Treatment	38,28 mg/l	-
	Plant		
	Fresh water	>0,05 mg/l	-
	Fresh water sediment	>1,33 mg/kg	-
	Marine water	>0,005 mg/l	-
	Marine water sediment	>0,133 mg/kg	-
	Sewage Treatment Plant	55,6 mg/l	-
	Soil	>0,066 mg/kg	-

#### 8.2 Exposure controls

Appropriate engineering controls

: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

#### **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.

#### **Eye/face protection**

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. Use eye protection according to EN 166. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

#### **Skin 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.

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included in the user's risk assessment.

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

#### **Hand protection**

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. > 8 hours (breakthrough time): Butyl rubber gloves (0.60mm)

The recommendation for the type or types of glove to use when handling this product is based on information from the following source: EN374. 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

#### **Body protection**

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to British Standard BS EN 1149 for further information on material and design requirements and test methods. Recommended: 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

: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Recommended: organic vapour (Type A) and particulate filter (EN 141)

# **Environmental exposure** controls

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

### SECTION 9: Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

#### 9.1 Information on basic physical and chemical properties

Physical state : Liquid.

Colour : Colourless.

Odour : Solvent-like

Odour threshold : Not available.

Melting point/freezing point

: Not available.

Initial boiling point and boiling range

: 145°C (293°F) [Literature]

Flammability (solid, gas)

: Flammable in the presence of the following materials or conditions: open flames,

sparks and static discharge, heat and shocks and mechanical impacts.

Lower and upper explosion

Lower: 1,1%

limit

Upper: 10,8%

Flash point

Closed cup: 27°C (80,6°F) [Literature]

Auto-ignition temperature Decomposition temperature

460°C (860°F)Not available.

pH pecomposition temperature

: Not applicable.

pH: Justification

: Product is non-soluble (in water).

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### SECTION 9: Physical and chemical properties

**Viscosity** Dynamic (room temperature): 150 mPa·s [ICI Rotothinner]

Kinematic (room temperature): 134 to 142 mm<sup>2</sup>/s [calculated.]

Kinematic (40°C): Not available.

Solubility(ies)

Media	Result
cold water	Not soluble
hot water	Not soluble

Solubility in water : Not applicable.

Miscible with water : No.

Partition coefficient: n-octanol/ : Not applicable.

water

: 1 kPa (7,50061 mm Hg) [room temperature] [calculated.] Vapour pressure

3 kPa (22,50185 mm Hg) [50°C (122°F)]

: Not available. **Evaporation rate Relative density** : Not available.

: 1,053 to 1,123 g/cm³ [20°C (68°F)] [DIN 53217] **Density** 

Vapour density : Not available.

**Explosive properties** : Non-explosive in the presence of the following materials or conditions: open

> flames, sparks and static discharge, heat, shocks and mechanical impacts, oxidising materials, reducing materials, combustible materials, organic materials,

metals, acids, alkalis and moisture. No unusual hazard if involved in a fire.

**Oxidising properties** : Not available.

**Particle characteristics** 

Median particle size : Not applicable.

## SECTION 10: Stability and reactivity

10.1 Reactivity : No specific test data related to reactivity available for this product or its ingredients.

10.2 Chemical stability : The product is stable.

10.3 Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

10.4 Conditions to avoid : Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld,

braze, solder, drill, grind or expose containers to heat or sources of ignition.

: Reactive or incompatible with the following materials: 10.5 Incompatible materials

oxidising materials

10.6 Hazardous

decomposition products

: Under normal conditions of storage and use, hazardous decomposition products

should not be produced.

## SECTION 11: Toxicological information

11.1 Information on toxicological effects

**Acute toxicity** 

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## **SECTION 11: Toxicological information**

Product/ingredient name	Result	Species	Dose	Exposure
Hexamethylene	LC50 Inhalation Dusts and	Rat	18500 mg/m³	1 hours
diisocyanate, oligomers	mists			
	LC50 Inhalation Dusts and	Rat - Female	390 mg/m³	4 hours
	mists			
	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
n-butyl acetate	LC50 Inhalation Dusts and	Rat - Male,	23,4 mg/l	4 hours
	mists	Female		
	LC50 Inhalation Vapour	Rat	>21 mg/l	4 hours
	LC50 Inhalation Vapour	Rat	9700 mg/m <sup>3</sup>	4 hours
	LD50 Oral	Rat	14000 mg/kg	-
hydrocarbons, aromatic, C9	LD50 Oral	Mouse	8400 mg/kg	-
	LD50 Oral	Rat	8400 mg/kg	-
hexamethylene-di-	LC50 Inhalation Dusts and	Rat	0,124 mg/m <sup>3</sup>	4 hours
isocyanate	mists			
	LCLo Inhalation Dusts and	Rat	60 mg/m³	4 hours
	mists		_	
	LD50 Dermal	Rabbit	>7000 mg/kg	-

**Conclusion/Summary** 

: Harmful if inhaled.

#### **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)
Blackfriar High Traffic Floor Paint - Activator	N/A	N/A	N/A	N/A	2,0
Hexamethylene diisocyanate, oligomers	N/A	N/A	N/A	N/A	1,5
n-butyl acetate	N/A	N/A	N/A	N/A	23,4
hydrocarbons, aromatic, C9	8400	N/A	N/A	N/A	N/A
hexamethylene-di-isocyanate	500	N/A	N/A	0,05	N/A

#### **Irritation/Corrosion**

Product/ingredient name	Result	Species	Score	Exposure	Observation
Hexamethylene diisocyanate, oligomers	Eyes - Cornea opacity	Rabbit	1	-	-
	Eyes - Moderate irritant	Rabbit	-	100 milligrams	-
	Skin - Oedema	Rabbit	1	4 hours	-
	Skin - Moderate irritant	Rabbit	-	500 milligrams	-
hydrocarbons, aromatic, C9	Eyes - Mild irritant	Rabbit	-	24 hours 100 microliters	-
hexamethylene-di-isocyanate	Eyes - Redness of the conjunctivae	Rabbit	3	-	-
	Skin - Erythema/Eschar	Rabbit	3	_	-

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

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

**Respiratory**: May cause respiratory irritation. May cause drowsiness or dizziness.

#### **Respiratory or skin sensitization**

Product/ingredient name	Route of exposure	Species	Result
Hexamethylene diisocyanate, oligomers	Respiratory	Guinea pig	Not sensitizing
hexamethylene-di-isocyanate	skin skin Respiratory skin	Guinea pig Mouse Guinea pig Guinea pig	Sensitising Sensitising Sensitising Sensitising

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## **SECTION 11: Toxicological information**

Skin

: May cause an allergic skin reaction.

Respiratory

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

#### **Mutagenicity**

Product/ingredient name	Test	Experiment	Result
Hexamethylene diisocyanate, oligomers	OECD 471	Experiment: In vitro Subject: Bacteria	Negative
oligomore	OECD 476	Experiment: In vitro Subject: Mammalian-Animal	Negative
	OECD 406 Skin sensitisation	Subject: Mammalian-Animal	Positive
	OECD 405 Acute eye irritation / corrosion	Subject: Mammalian-Animal	Negative
hydrocarbons, aromatic, C9	OECD 471	Subject: Bacteria	Negative
hexamethylene-di-isocyanate	OECD 471	Experiment: In vitro Subject: Bacteria	Negative
	OECD 476	Experiment: In vitro Subject: Mammalian-Animal	Negative
	OECD 474	Experiment: In vivo Subject: Mammalian-Animal	Negative

**Conclusion/Summary** 

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

**Carcinogenicity** 

**Conclusion/Summary** 

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

**Reproductive toxicity** 

Product/ingredient name	Maternal toxicity	Fertility	Developmental toxin	Species	Dose	Exposure
hydrocarbons, aromatic, C9	-	-		unspecified	Route of exposure unreported	-

**Conclusion/Summary** 

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

**Teratogenicity** 

**Conclusion/Summary** : Based on available data, the classification criteria are not met.

#### Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Hexamethylene diisocyanate, oligomers	Category 3	-	Respiratory tract irritation
n-butyl acetate	Category 3	-	Narcotic effects
hydrocarbons, aromatic, C9	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
hexamethylene-di-isocyanate	Category 3	-	Respiratory tract irritation

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

Not available.

#### **Aspiration hazard**

Product/ingredient name	Result	
hydrocarbons, aromatic, C9	ASPIRATION HAZARD - Category 1	

of exposure

Information on likely routes : Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

Potential acute health effects

**Eye contact** : No known significant effects or critical hazards.

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### **SECTION 11: Toxicological information**

Inhalation : Harmful if inhaled. Can cause central nervous system (CNS) depression. May

cause drowsiness or dizziness. May cause respiratory irritation.

Skin contact : Defatting to the skin. May cause skin dryness and irritation. May cause an allergic

skin reaction.

Ingestion : Can cause central nervous system (CNS) depression.

#### Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.

**Inhalation** : Adverse symptoms may include the following:

respiratory tract irritation

coughing

nausea or vomiting

headache

drowsiness/fatigue dizziness/vertigo unconsciousness

**Skin contact**: Adverse symptoms may include the following:

irritation redness dryness cracking

Ingestion : No specific data.

#### Delayed and immediate effects as well as chronic effects from short and long-term exposure

**Short term exposure** 

Potential immediate

: Not available.

effects

Potential delayed effects : Not available.

**Long term exposure** 

**Potential immediate** 

: Not available.

effects

Potential delayed effects : Not available.

#### Potential chronic health effects

Product/ingredient name	Result	Species	Dose	Exposure
Hexamethylene diisocyanate, oligomers	Sub-chronic LC50 Inhalation Dusts and mists	Rat	14,7 mg/m³	6 hours; 5 days per week Intermittent
	Sub-acute LC50 Inhalation Dusts and mists	Rat	89,9 mg/m³	6 hours; 5 days per week Intermittent
	Sub-acute LCLo Inhalation Dusts and mists	Rat	4,3 mg/m³	6 hours; 5 days per week Intermittent
hexamethylene-di-isocyanate	Chronic LCLo Inhalation Vapour	Rat	0,025 p.p.m.	30 days; 6 hours per day Intermittent

**Conclusion/Summary** 

: Not available.

General

: Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/ or dermatitis. Once sensitized, a severe allergic reaction may occur when

subsequently exposed to very levels

subsequently exposed to very low levels.

Carcinogenicity: No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.
Reproductive toxicity : No known significant effects or critical hazards.

Other information : Not available.

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## **SECTION 12: Ecological information**

#### **12.1 Toxicity**

Product/ingredient name	Result	Species	Exposure
Hexamethylene diisocyanate, oligomers	Acute EC50 3828 mg/l	Bacteria	3 hours
	Acute EC50 >100 mg/l	Daphnia spec.	48 hours
	Acute IC50 >1000 mg/l	Algae - Scenedesmus subspicatus	72 hours
	Acute LC50 >100 mg/l	Fish - Zebra barbel	96 hours
n-butyl acetate	Acute EC50 397 mg/l Fresh water	Algae - Desmodesmus subspicatus	72 hours
	Acute EC50 44 mg/l Fresh water	Daphnia spec Daphnia spec.	48 hours
	Acute LC50 18 mg/l Fresh water	Fish - Fathead minnow - Pimephales promelas	96 hours
	Chronic NOEC 23 mg/l Fresh water	Daphnia spec Daphnia spec.	21 days
hexamethylene-di-isocyanate	Acute EC50 >77,4 mg/l	Algae - Scenedesmus subspicatus	72 hours
	Acute EC50 842 mg/l	Bacteria	3 hours

**Conclusion/Summary** 

: Harmful to aquatic life with long lasting effects.

#### 12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
Hexamethylene diisocyanate, oligomers	OECD 301C	1 % - Not readily - 28 days	-	-
n-butyl acetate	-	90 % - Readily - 28 days	-	-
•	OECD 301D	83 % - Readily - 28 days	-	-
	-	80 % - 5 days	-	-
hexamethylene-di-isocyanate	OECD 301F	42 % - 10 days	-	-
	EU 301F Ready	42 % - 28 days	-	-
	Biodegradability -	-		
	Manometric			
	Respirometry			
	Test			

#### **Conclusion/Summary**

: This product has not been tested for biodegradation. Based on available data, the classification criteria are not met.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Hexamethylene diisocyanate, oligomers	Fresh water 0,32 days, 23°C		Not readily
n-butyl acetate hydrocarbons, aromatic, C9 hexamethylene-di-isocyanate		-	Readily Readily Not readily
nexametriylerie-di-isocyanate	-	-	Not reaully

#### 12.3 Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Hexamethylene	5,54	367,7	Low
diisocyanate, oligomers			
n-butyl acetate	2,3	10	Low
hydrocarbons, aromatic, C9	3.7 to 4.5	-	High
hexamethylene-di-isocyanate	0,02	57,63	Low

#### 12.4 Mobility in soil

Soil/water partition coefficient (Koc)

: Not available.

Mobility : Volatile.

#### 12.5 Results of PBT and vPvB assessment

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## **SECTION 12: Ecological information**

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.

#### 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**

Waste catalogue

: Yes.

Waste code	Waste designation
08 05 01*	waste isocyanates

#### **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. Vapour from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

## **SECTION 14: Transport information**

	ADR/RID	ADN	IMDG	IATA
14.1 UN number or ID number	UN1866	UN1866	UN1866	UN1866
14.2 UN proper shipping name	RESIN SOLUTION, flammable	RESIN SOLUTION, flammable	RESIN SOLUTION, flammable	RESIN SOLUTION, flammable
14.3 Transport hazard class(es)	3	3	3	3
14.4 Packing group	III	III	III	III
14.5 Environmental hazards	No.	No.	No.	No.
Additional information	Hazard identification number 30 Limited quantity 5L Tunnel code (D/E)	Remarks : ≤ 5L: Limited Quantity	Emergency schedules F-E,S-E Special provisions 223, 955 Remarks : ≤ 5L: Limited Quantity - IMDG 3.4	Quantity limitation Passenger and Cargo Aircraft: 60 L. Packaging instructions: 355. Cargo Aircraft Only: 220 L. Packaging instructions: 366. Limited Quantities -

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Blackfriar High Traffic Floor Paint - Activator SECTION 14: Transport information Passenger Aircraft: 10 L. Packaging instructions: Y344. Special provisions **A3** 

user

14.6 Special precautions for : 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 IMO instruments

: Not available.

## **SECTION 15: Regulatory information**

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture **UK (GB)/REACH**

Annex XIV - List of substances subject to authorisation

**Annex XIV** 

None of the components are listed above the relevant limit.

#### **Substances of very high concern**

None of the components are listed above the relevant limit.

: Not listed

#### Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name	%	Designation [Usage]
Blackfriar High Traffic Floor Paint - Activator	≥90	3

Labelling : Not applicable.

Other EU regulations

**VOC for Ready-for-Use** 

**Mixture** 

: 2004/42/EC - IIA/j: 500g/l (2010). <= 500g/l VOC.

**Industrial emissions** (integrated pollution

prevention and control) -

Air

**Industrial emissions** : Not listed

(integrated pollution prevention and control) -

Water

Ozone depleting substances

Not listed.

**Prior Informed Consent (PIC)** 

Not listed.

**Persistent Organic Pollutants** 

Not listed.

**Seveso Directive** 

This product is controlled under the Seveso Directive.

**Danger criteria** 

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## **SECTION 15: Regulatory information**

**Category** 

P5c

#### **EU regulations**

Industrial emissions

: Not listed

(integrated pollution prevention and control) -

Air

Industrial emissions

: Not listed

(integrated pollution prevention and control) -

Water

#### **International regulations**

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

#### **Montreal Protocol**

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.

**CN code** : 3208 90 91 00

**Inventory list** 

Australia : All components are listed or exempted.

Canada : All components are listed or exempted.

China : All components are listed or exempted.

Eurasian Economic Union: Russian Federation inventory: Not determined.

Japan inventory (CSCL): Not determined.

Japan

Japan inventory (ISHL): Not determined.

New Zealand: All components are listed or exempted.Philippines: All components are listed or exempted.Republic of Korea: All components are listed or exempted.Taiwan: All components are listed or exempted.

Thailand : Not determined.

Turkey: All components are listed or exempted.

United States : Not determined.Viet Nam : Not determined.

15.2 Chemical safety

This product contains substances for which Chemical Safety Assessments are still

assessment required.

## **SECTION 16: Other information**

Indicates information that has changed from previously issued version.

Abbreviations and acronyms

: ATE = Acute Toxicity Estimate

GB CLP = UK CLP (EC No 1272/2008) on the Classification, Labelling and

Packaging of Substances and Mixtures as amended by (EU Exit) Regulations 2019

No. 720 and amendments

DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level

EUH statement = GB CLP-specific Hazard statement

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#### **SECTION 16: Other information**

N/A = Not available

PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration

RRN = REACH Registration Number SGG = Segregation Group

vPvB = Very Persistent and Very Bioaccumulative

#### Procedure used to derive the classification

Classification	Justification
Flam. Liq. 3, H226	On basis of test data
Acute Tox. 4, H332	Calculation method
Skin Sens. 1, H317	Calculation method
STOT SE 3, H335	Calculation method
STOT SE 3, H336	Calculation method
Aquatic Chronic 3, H412	Calculation method

#### Full text of abbreviated H statements

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

#### **Full text of classifications**

Acute Tox. 1	ACUTE TOXICITY - Category 1	
Acute Tox. 4	ACUTE TOXICITY - Category 4	
Aquatic Chronic 2	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2	
Aquatic Chronic 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3	
Asp. Tox. 1	ASPIRATION HAZARD - Category 1	
Eye Irrit. 2	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2	
Flam. Liq. 3	FLAMMABLE LIQUIDS - Category 3	
Resp. Sens. 1	RESPIRATORY SENSITISATION - Category 1	
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2	
Skin Sens. 1	SKIN SENSITISATION - Category 1	
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3	

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#### **Notice to reader**

IMPORTANT NOTE: 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 information contained in this data sheet (as may be amended from time to time) is not intended to be exhaustive and is presented in good faith and believed to be correct as of the date on which it is prepared. It is the user's responsibility to verify that this data sheet is current prior to using the product to which it relates. Persons using the information must make their own determinations as to the suitability of the relevant product for their purposes prior to use. Where those purposes are other than as specifically recommended in this safety data sheet, then the user uses the product at their own risk.

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#### **SECTION 16: Other information**

MANUFACTURER'S DISCLAIMER: the conditions, methods and factors affecting the handling, storage, application, use and disposal of the product are not under the control and knowledge of the manufacturer. Therefore the manufacturer does not assume responsibility for any adverse events which may occur in the handling, storage, application, use, misuse or disposal of the product and, so far as permitted by applicable law, the manufacturer expressly disclaims liability for any and all loss, damages and/or expenses arising out of or in any way connected to the storage, handling, use or disposal of the product. Safe handling, storage, use and disposal are the responsibility of the users. Users must comply with all applicable health and safety laws.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.