



## SAFETY DATA SHEET WHITE-KNIGHT™ DARK GREY

According to Regulation (EU) No 453/2010

### SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1. Product identifier

**Product name** WHITE-KNIGHT™ DARK GREY  
**Product No.** 7831

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

**Identified uses** Two component isocyanate based sealant.

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

**Supplier** Garland Company UK Ltd,  
Unit 5, Glevum Works,  
Upton Street,  
Gloucester GL1 4LA  
UK  
Tel: 01452 330 646  
Fax: 01452 330 657  
email: info@garlandukltd.co.uk

#### 1.4. Emergency telephone number

07973 837 713 (24 hours)

### SECTION 2: HAZARDS IDENTIFICATION

#### 2.1. Classification of the substance or mixture

**Classification (1999/45/EEC)** Xn;R20, R65. R42/43. N;R51/53.

##### **Human health**

Harmful by inhalation. Harmful: may cause lung damage if swallowed. Irritating to eyes, respiratory system and skin. May cause sensitisation by inhalation and skin contact.

##### **Environment**

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

##### **Physical and Chemical Hazards**

Can become flammable in use.

#### 2.2. Label elements

##### **Contains**

d-LIMONENE  
STODDARD SOLVENT  
TOLUENE-DIISOCYANATE

##### **Labelling**



Harmful



Dangerous for the environment

##### **Risk Phrases**

R20	Harmful by inhalation.
R42/43	May cause sensitisation by inhalation and skin contact.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65	Harmful: may cause lung damage if swallowed.

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## Safety Phrases

S23	Do not breathe vapour/spray.
S24	Avoid contact with skin.
S37	Wear suitable gloves.
S38	In case of insufficient ventilation, wear suitable respiratory equipment.
S45	In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).
S57	Use appropriate containment to avoid environmental contamination.
S60	This material and its container must be disposed of as hazardous waste.
S61	Avoid release to the environment. Refer to special instructions/safety data sheets.
P4	Contains isocyanates. See information supplied by the manufacturer.
P15	Can become flammable in use.

## 2.3. Other hazards

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.2. Mixtures

<b>d-LIMONENE</b>		<b>1-5%</b>
<b>CAS-No.: 5989-27-5</b>		<b>EC No.: 227-813-5</b>
Classification (EC 1272/2008) Flam. Liq. 3 - H226 Skin Irrit. 2 - H315 Skin Sens. 1 - H317 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410	Classification (67/548/EEC) R10 R43 Xi;R38 N;R50/53	
<b>STODDARD SOLVENT</b>		<b>10-30%</b>
<b>CAS-No.: 8052-41-3</b>		<b>EC No.: 232-489-3</b>
Classification (EC 1272/2008) Flam. Liq. 3 - H226 Asp. Tox. 1 - H304	Classification (67/548/EEC) Xn;R65. R10.	
<b>TOLUENE-DIISOCYANATE</b>		<b>&lt; 1%</b>
<b>CAS-No.: 26471-62-5</b>		<b>EC No.: 247-722-4</b>
Classification (EC 1272/2008) Acute Tox. 2 - H330 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Resp. Sens. 1 - H334 Skin Sens. 1 - H317 Carc. 2 - H351 STOT Single 3 - H335 Aquatic Chronic 3 - H412	Classification (67/548/EEC) Carc. Cat. 3;R40 T+;R26 R42/43 Xi;R36/37/38 R52/53	

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of first aid measures

#### Inhalation

Move the exposed person to fresh air at once. Get medical attention if any discomfort continues.

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## **Ingestion**

Rinse mouth thoroughly. Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs. Get medical attention immediately!

## **Skin contact**

Remove affected person from source of contamination. Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if any discomfort continues.

## **Eye contact**

Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes and get medical attention.

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

### **Inhalation.**

Frequent inhalation of vapours, may cause respiratory allergy.

### **Ingestion**

Pneumonia may be the result if vomited material containing solvents reaches the lungs.

### **Skin contact**

Prolonged contact may cause redness, irritation and dry skin. May cause allergic skin disorders in sensitive individuals.

### **Eye contact**

Splashes may irritate.

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

The severity of the symptoms described will vary dependant of the concentration and the length of exposure.

## **SECTION 5: FIREFIGHTING MEASURES**

### **5.1. Extinguishing media**

#### **Extinguishing media**

Extinguish with foam, carbon dioxide or dry powder.

#### **Unsuitable extinguishing media**

Do not use water jet as an extinguisher, as this will spread the fire.

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

#### **Hazardous combustion products**

In case of fire, toxic gases (CO, CO<sub>2</sub>, NO<sub>x</sub>) may be formed.

#### **Unusual Fire & Explosion Hazards**

Vapours may ignite.

#### **Specific hazards**

In case of fire, toxic gases may be formed (CO<sub>x</sub>, NO<sub>x</sub>). Hydrocarbons.

### **5.3. Advice for firefighters**

#### **Special Fire Fighting Procedures**

Avoid breathing fire vapours. Containers close to fire should be removed immediately or cooled with water. Keep run-off water out of sewers and water sources. Dike for water control.

#### **Protective equipment for fire-fighters**

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

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

Wear protective clothing as described in Section 8 of this safety data sheet.

### **6.2. Environmental precautions**

Do not allow to enter drains, sewers or watercourses. Spillages or uncontrolled discharges into watercourses must be IMMEDIATELY alerted to the Environmental Agency or other appropriate regulatory body.

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

Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Stop leak if possible without risk. Absorb in vermiculite, dry sand or earth and place into containers. Containers with collected spillage must be properly labelled with correct contents and hazard symbol.

### **6.4. Reference to other sections**

Wear protective clothing as described in Section 8 of this safety data sheet. See section 11 for additional information on health hazards. Collect and dispose of spillage as indicated in section 13.

## **SECTION 7: HANDLING AND STORAGE**

**7.1. Precautions for safe handling**

Read and follow manufacturer's recommendations. Eliminate all sources of ignition. Provide good ventilation. Avoid inhalation of vapours/spray and contact with skin and eyes. Persons susceptible to allergic reactions should not handle this product. Persons with impaired lung functions should not handle this preparation.

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

Keep away from heat, sparks and open flame. Store in tightly closed original container in a dry, cool and well-ventilated place. Avoid contact with oxidising agents.

**Storage Class**

Flammable liquid storage.

**7.3. Specific end use(s)**

The identified uses for this product are detailed in Section 1.2.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

**8.1. Control parameters**

**8.2. Exposure controls**

**Protective equipment**



**Engineering measures**

Provide adequate ventilation.

**Respiratory equipment**

If ventilation is insufficient, suitable respiratory protection must be provided.

**Hand protection**

Use protective gloves. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.

**Eye protection**

Wear approved safety goggles.

**Other Protection**

Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact.

**Hygiene measures**

Promptly remove any clothing that becomes contaminated. Wash promptly with soap & water if skin becomes contaminated. When using do not eat, drink or smoke. Wash hands after handling.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

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

<b>Appearance</b>	Liquid
<b>Colour</b>	Dark. Grey.
<b>Odour</b>	Hydrocarbon.
<b>Initial boiling point and boiling range</b>	~ 153.3°C
<b>Relative density</b>	1.26
<b>Vapour density (air=1)</b>	7.0
<b>Evaporation rate</b>	0.1 (EtEt=1)
<b>Flash point (°C)</b>	41°C
<b>Flammability Limit - Lower(%)</b>	10.7%
<b>Flammability Limit - Upper(%)</b>	0.7%

**9.2. Other information**

**Volatile Organic Compound (VOC)** 220 g/litre

**SECTION 10: STABILITY AND REACTIVITY**

**10.1. Reactivity**

Strong oxidising substances.

**10.2. Chemical stability**

Stable under normal temperature conditions and recommended use.

**10.3. Possibility of hazardous reactions**

Not available.

**Hazardous Polymerisation**

Will not polymerise.

**10.4. Conditions to avoid**

Avoid contact with strong oxidisers. Avoid heat, flames and other sources of ignition.

**10.5. Incompatible materials**

**Materials To Avoid**

Strong oxidising substances.

**10.6. Hazardous decomposition products**

In case of fire, toxic gases (CO, CO2, NOx) may be formed. Hydrocarbons.

**SECTION 11: TOXICOLOGICAL INFORMATION**

**11.1. Information on toxicological effects**

**Inhalation**

Harmful by inhalation. Irritating to respiratory system. May cause sensitisation by inhalation.

**Ingestion**

Harmful: may cause lung damage if swallowed.

**Skin contact**

Irritating to skin. May cause sensitisation by skin contact.

**Eye contact**

Irritating to eyes.

**Medical Considerations**

Skin disorders and allergies. Chronic respiratory and obstructive airway diseases.

<b>Name</b>	<b>d-LIMONENE</b>
<b>Toxic Dose 1 - LD 50</b>	4,400 mg/kg (oral rat)
<b>Toxic Dose 2 - LD 50</b>	> 2 mg/kg (skin-rbt)
<b>Name</b>	<b>TOLUENE-DIISOCYANATE</b>
<b>Toxic Dose 1 - LD 50</b>	3,360 mg/kg (oral rat)
<b>Toxic Dose 2 - LD 50</b>	> 9400 mg/kg (skin-rbt)
<b>Toxic Conc. - LC 50</b>	0.1 mg/l/4h (inh-rat)
<b>Name</b>	<b>STODDARD SOLVENT</b>
<b>Toxic Dose 1 - LD 50</b>	> 2000 mg/kg (oral rat)
<b>Toxic Conc. - LC 50</b>	> 5500 mg/l/4h (inh-rat)

**SECTION 12: ECOLOGICAL INFORMATION**

**Ecotoxicity**

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**12.1. Toxicity**

**12.2. Persistence and degradability**

**Degradability**

No data available.

**12.3. Bioaccumulative potential**

**Bioaccumulative potential**

No data available on bioaccumulation.

**12.4. Mobility in soil**

**Mobility:**

The product is insoluble in water.

**12.5. Results of PBT and vPvB assessment**

Not available.

**12.6. Other adverse effects**

Not determined.

<b>Name</b>	<b>d-LIMONENE</b>
LC 50, 96 Hrs, Fish mg/l	71.4 - 852
EC 50, 48 Hrs, Daphnia, mg/l	11 - 33
<b>Name</b>	<b>TOLUENE-DIISOCYANATE</b>
LC 50, 96 Hrs, Fish mg/l	133 - 4170
EC 50, 48 Hrs, Daphnia, mg/l	12.5
<b>Name</b>	<b>STODDARD SOLVENT</b>
<b>Ecotoxicity</b>	

No data on possible environmental effects have been found.

**SECTION 13: DISPOSAL CONSIDERATIONS**

**13.1. Waste treatment methods**

Dispose of waste and residues in accordance with local authority requirements. Recover and reclaim or recycle, if practical.

**SECTION 14: TRANSPORT INFORMATION**

**14.1. UN number**

UN No. (ADR/RID/ADN)	1263
UN No. (IMDG)	1263
UN No. (ICAO)	1263

**14.2. UN proper shipping name**

Proper Shipping Name PAINT

**14.3. Transport hazard class(es)**

ADR/RID/ADN Class	3
ADR/RID/ADN Class	Class 3: Flammable liquids.
ADR Label No.	3
IMDG Class	3
ICAO Class/Division	3
Transport Labels	



**14.4. Packing group**

ADR/RID/ADN Packing group	III
IMDG Packing group	III
ICAO Packing group	III

**14.5. Environmental hazards**

Environmentally Hazardous Substance/Marine Pollutant



**14.6. Special precautions for user**

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EMS	F-E, S-E
Emergency Action Code	•3YE
Hazard No. (ADR)	30
Tunnel Restriction Code	(D/E)

## 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

## SECTION 15: REGULATORY INFORMATION

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

#### Statutory Instruments

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716).

#### Approved Code Of Practice

Classification and Labelling of Substances and Preparations Dangerous for Supply.

#### Guidance Notes

Workplace Exposure Limits EH40.

#### EU Legislation

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.

### 15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.

## SECTION 16: OTHER INFORMATION

#### Revision Comments

Transport classification updated. Format updated in accordance with Regulation (EU) No. 453/2010.

**Revision Date** 04-2011

**Revision** 4

**Supersedes date** 08-2008

#### Risk Phrases In Full

R10	Flammable.
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65	Harmful: may cause lung damage if swallowed.
R36/37/38	Irritating to eyes, respiratory system and skin.
R38	Irritating to skin.
R40	Limited evidence of a carcinogenic effect.
R42/43	May cause sensitisation by inhalation and skin contact.
R43	May cause sensitisation by skin contact.
R26	Very toxic by inhalation.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

#### Hazard Statements In Full

H319	Causes serious eye irritation.
H315	Causes skin irritation.
H330	Fatal if inhaled.
H226	Flammable liquid and vapour.
H412	Harmful to aquatic life with long lasting effects.
H304	May be fatal if swallowed and enters airways.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H317	May cause an allergic skin reaction.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H410	Very toxic to aquatic life with long lasting effects.
H400	Very toxic to aquatic life.