



# WOOD FINISHES DIRECT

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For purchasing information visit:  
[Morrells Induro XL2 Floor Varnish](#)

# Product Data Sheet



## Induro XL2

### Two Pack Water Borne Flooring Lacquer Range

Code	Description	Code	Description
Induro XL2-90	Gloss	Induro XL2-30	Semi Matt Sheen
Induro XL2-50	Satin Sheen	Induro XL2-10	Matt Finish
8CAT/XL2	XL2 catalyst		

<b>Technical Data</b>	<p>The Induro XL2 Range is based on externally cross-linking, 100% polyurethane technology offering enhanced performance characteristics compared with Single Pack systems. This product range is ideal for use in areas of high traffic levels and where there is an increased risk of scuffing, spillages etc.</p> <p>These products are not suitable for areas where high levels of water are present, for example bathrooms and swimming pool walkways etc.</p>
<b>Properties</b>	<p>The Induro XL2 lacquers provide extremely strong yet flexible coatings offering outstanding chemical and mechanical resistance. When used in conjunction with Induro GP or EB Seal they produce finishes with excellent clarity and woodwarming.</p> <p>Induro XL ranges anti-bacterial properties offer protection against E-coli, MRSA, and other harmful organisms with a 99% kill rate within 24 hours.</p>
<b>Recommended use</b>	<p>The Induro XL2 Range of lacquers are suitable for use on softwood &amp; hardwood floors for domestic and a wide range of commercial/institutional applications with high traffic levels.</p> <p>Residential            Entrance area, family rooms, corridors, kitchens etc.</p> <p>Institutional            Hospitals, Care Homes, Schools, Museums, Galleries etc.</p> <p>Commercial            Restaurants, Offices, Retail Premises, Hotels etc.</p> <p>Details/guidance on recommended finishing processes and systems are provided the Morrells Flooring Brochure.</p>
<b>Mixing Guidelines</b>	<p>Mix 9 parts lacquer to 1 part 8CAT/XL2 by volume. The catalyst should be added to the lacquer in the bottle, the top replaced, turned upside down and shaken vigorously for at least 1 minute. The catalysed lacquer should be allowed to stand for 5 minutes before use and should be used within 5 hours of mixing.</p> <p>The catalysed lacquer should be ready for use (RFU) but can be thinned sparingly with 2% water if required. In winter months thinning to this degree is not recommended and may result in poor film formation.</p>



Morrells Woodfinishes Ltd. Wellington Works, Mill Lane, Woodley, Stockport, Cheshire. SK6 1RN  
Tel: 08705 60 61 62 Fax: 08705 604 604 Email: enquiries@morrells.co.uk Web: www.morrells.co.uk

Registered Office: Morrells Woodfinishes Limited. Company no. 785935 VAT. Reg No GB 712 5048 66



<b>Application</b>	<p>For best results the application should be carried out using a Short Mohair or similar type roller. Mohair Flooring pads or T-bar applicators can also be used. Lacquer should be applied evenly making smooth passes with the roller/pad predominantly along the grain taking care to avoid 'pooling'.</p> <p>The approximate single coat coverage of the lacquer is 12 m<sup>2</sup> per litre, this however is dependant on the method of application, porosity of the timber and type/desired finish.</p>
<b>Handling</b>	<p>These lacquers should ideally be used (lacquer &amp; application area) at temperatures above 15°C, to prevent problems of film formation and "whitening".</p> <p>Touch Dry: 20 - 30 minutes @ 18°C  Sandable: 2-3 hours @ 18°C.  Recoatible: 2-3 hours minimum @ 18°C</p> <p>Induro XL2 will accept light traffic use 24hours after application.</p> <p>Do not to place furniture or move furniture across the floor surface for at least 72 hours after application. Do not place mats or rugs on surface for at least 5 days after application, as this will impede final cure.</p> <p>These times will be extended under conditions of low temperature and/or of high humidity.</p>
<b>Cleaning</b>	<p>Application equipment should be cleaned with water immediately after use.</p>
<b>System Guidelines</b>	<p>Morrells recommends the following guidance for use of this product range:</p> <p><b>Typical Domestic Finish:</b>  1 coats at 130 - 150mls/m<sup>2</sup> per coat of Induro GP or EB Seal (Dry Film Thickness ~ 42µ per coat), 2 coats at 100 - 120mls/m<sup>2</sup> per coat of Induro XL2 Lacquer (Dry Film Thickness ~ 30 - 35µ per coat).</p> <p><b>Typical Commercial Finish:</b>  1 coats at 130 - 150mls/m<sup>2</sup> per coat of Induro GP or EB Seal (Dry Film Thickness ~ 42µ per coat), 3 - 4 coats at 100 - 120mls/m<sup>2</sup> per coat of Induro XL2 Lacquer (Dry Film Thickness ~ 35 - 40µ per coat).</p> <p>The induro GP or EB Seal should <b>not</b> be denibbed, the Induro XL2 should be denibbed between coats to aid adhesion.</p> <p>Using these products in systems outside these guidelines can lead to immediate and latent problems with the integrity of the finish.</p>
<b>Maintenance</b>	<ul style="list-style-type: none"> <li>○ The use of good quality entrance mats and furniture pads are recommended to avoid damage to the finish.</li> <li>○ Should a liquid spillage occur all excess liquid should be wiped up and removed immediately and not allowed to dwell on the surface. Similarly, spillages of hot or cold cooking oils or fats should be wiped up and removed without delay.</li> <li>○ Sweep or vacuum with a hard-floor attachment as often as possible. As and when required, use a lightly damped mop on the surface.</li> </ul>



	<ul style="list-style-type: none"> <li>○ Wet cleaning and vacuuming should be avoided until the lacquer has reached full cure – approx 7 days after application.</li> <li>○ Pets can also traffic grit and dirt on to a floor. Pets claws should be trimmed regularly to reduce scratches/indentation to the finish.</li> </ul> <p>Refer to the induro Wooden Floor Maintenance Guide for information on cleaning and reviving.</p>
<p><b>Important Information</b></p>	<ul style="list-style-type: none"> <li>➤ Do not use in areas of high humidity or condensation.</li> <li>➤ Only Morrells standard range of LF stains are recommended under Induro waterborne ranges.</li> <li>➤ Excessive coating weights can lead to cracking or lifting.</li> <li>➤ Leave adequate time between coats. Do not apply more than 3 coats in one day. De-nib between coats of induro XL2 to aid adhesion.</li> <li>➤ Do not denib the induro EB or GP Seal before coating</li> <li>➤ Do not overcoat with solvent borne products.</li> <li>➤ When coating darker timbers, such as walnut, mahogany or teak, slight bleaching may occur.</li> <li>➤ Waterborne products should have nominated finishing equipment.</li> <li>➤ Product should be stored above 5°C and protected from frost.</li> <li>➤ Optimum application is achieved between 18°C and 22°C with good air movement and ventilation.</li> <li>➤ Finished products should not be subjected to environments with temperatures of &lt; 2°C.</li> <li>➤ In scope of 2004/42/EC.</li> </ul>
<p><b>Health &amp; Safety</b></p>	<p>Reference should be made to the appropriate MSDS for this product range, which can be found at <a href="http://www.morrells.co.uk">www.morrells.co.uk</a></p> <p>The use of appropriate personal protection equipment (PPE) is recommended.</p> <p>These products are intended for <b>professional use</b> only.</p>

The information provided on this information sheet is based on the best of our knowledge and experience, is given in good faith and should only be regarded as recommendations. No guarantee should be inferred and customers are advised to carry out their own tests under local conditions.

For further technical information contact our Technical Support Team on 0161 406 5300.





**SAFETY DATA SHEET**  
**INDURO XL2 WATERBORNE FLOOR FINISH**

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

**1.1. Product identifier**

**Product Name** INDURO XL2 WATERBORNE FLOOR FINISH  
**Product No.** 8GL/304 8SA/304 8SM/304 8MA/304

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

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

**Supplier:** Morrells Woodfinishes Ltd  
Wellington Works  
Mill Lane, Woodley  
Stockport  
England  
SK6 1RN  
0161 406 5300  
0161 406 6276  
enquiries@morrells.co.uk

**1.4. Emergency telephone number**

0161 406 5300 DURING OFFICE HOURS

**SECTION 2: HAZARDS IDENTIFICATION**

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

**Classification (EC 1272/2008)**

Physical	Not classified.
Health	Not classified.
Environmental	Not classified.

**Classification (1999/45)** Not classified.

**2.2. Label elements**

**Supplemental Label Information**

EUH210 Safety data sheet available on request.

**2.3. Other hazards**

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

**3.2. Mixtures**

<b>3-BUTOXYPROPAN-2-OL</b>	<b>1-5%</b>
<b>CAS-No.: 5131-66-8</b>	<b>EC No.: 225-878-4</b>
Classification (EC 1272/2008) Skin Irrit. 2 - H315 Eye Irrit. 2 - H319	Classification (67/548) Xi;R36/38

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**

# INDURO XL2 WATERBORNE FLOOR FINISH

## Inhalation.

Move the exposed person to fresh air at once. Rinse nose and mouth with water. Get medical attention if any discomfort continues.

## Ingestion

NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Rinse mouth thoroughly. Get medical attention if any discomfort continues.

## Skin Contact

Remove affected person from source of contamination. Remove contaminated clothing. Wash the skin immediately 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. Get medical attention if any discomfort continues.

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

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

## SECTION 5: FIREFIGHTING MEASURES

### 5.1. Extinguishing media

#### Extinguishing Media

This product is not flammable. Use fire-extinguishing media appropriate for surrounding materials.

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

### 5.3. Advice for firefighters

## SECTION 6: ACCIDENTAL RELEASE MEASURES

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

### 6.2. Environmental precautions

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

Stop leak if possible without risk. Absorb in vermiculite, dry sand or earth and place into containers. Flush with plenty of water to clean spillage area. Do not contaminate water sources or sewer.

### 6.4. Reference to other sections

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

Avoid spilling, skin and eye contact.

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

Store in tightly closed original container in a dry, cool and well-ventilated place. Keep in original container.

### 7.3. Specific end use(s)

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

### 8.2. Exposure controls

#### Protective Equipment



#### Engineering Measures

Provide adequate ventilation. Observe occupational exposure limits and minimize the risk of inhalation of vapours.

#### Respiratory Equipment

No specific recommendation made, but respiratory protection may still be required under exceptional circumstances when excessive air contamination exists.

#### Hand Protection

Use suitable protective gloves if risk of skin contact.



# INDURO XL2 WATERBORNE FLOOR FINISH

Dispose of waste and residues in accordance with local authority requirements.

## SECTION 14: TRANSPORT INFORMATION

Road Transport Notes	Not Classified
Rail Transport Notes	Not classified.
Sea Transport Notes	Not classified.
Air Transport Notes	Not classified.

### 14.1. UN number

### 14.2 UN Proper Shipping Name

### 14.3 Transport hazard class(es)

### 14.4. Packing group

### 14.5. Environmental hazards

### 14.6. Special precautions for user

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

## SECTION 15: REGULATORY INFORMATION

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

#### Uk Regulatory References

The Control of Substances Hazardous to Health Regulations 2002 (S.I 2002 No. 2677) with amendments.

#### Statutory Instruments

The Classification, Labelling and Packaging of substances and mixtures Regulations EC 1272/2008 (CLP) and amendments

#### Approved Code Of Practice

Classification and Labelling of Substances and Preparations Dangerous for Supply. Safety Data Sheets for Substances and Preparations.

#### Guidance Notes

Workplace Exposure Limits EH40. CHIP for everyone HSG(108).

### 15.2. Chemical Safety Assessment

## SECTION 16: OTHER INFORMATION

Revision Date	22/02/2016
Revision	2
Supersedes Date	16/12/2011
Risk Phrases In Full	
R36/38	Irritating to eyes and skin.
Hazard Statements In Full	
H315	Causes skin irritation.
H319	Causes serious eye irritation.

#### Disclaimer

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.



## SAFETY DATA SHEET

### 8CAT/XL2

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

##### 1.1. Product identifier

Product Name 8CAT/XL2

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

Identified uses cross-linking agent

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

Supplier: Morrells Woodfinishes Ltd  
 Wellington Works  
 Mill Lane, Woodley  
 Stockport  
 England  
 SK6 1RN  
 0161 406 5300  
 0161 406 6276  
 enquiries@morrells.co.uk

##### 1.4. Emergency telephone number

0161 406 5300 DURING OFFICE HOURS

#### SECTION 2: HAZARDS IDENTIFICATION

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

###### Classification (EC 1272/2008)

Physical	Not classified.
Health	Acute Tox. 4 - H332; Skin Irrit. 2 - H315; Eye Dam. 1 - H318; Skin Sens. 1 - H317; STOT Single 3 - H335
Environmental	Aquatic Chronic 3 - H412

Classification (1999/45) Xn; R20. Xi; R36/37. R43. R52/53.

###### Human Health

Splashes may cause serious eye damage. The liquid may irritate the skin. May cause allergic skin disorders in sensitive individuals.

###### Environment

The product contains a substance which is harmful to aquatic organisms and which may cause long term adverse effects in the aquatic environment.

##### 2.2. Label elements

Contains: 3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate oligomers  
 Hexamethylene diisocyanate oligomers, Isocyanurate

Label In Accordance With (Ec) No. 1272/2008



###### Hazard Statements

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.

## 8CAT/XL2

<p>H412</p> <p><b>Supplementary Precautionary Statements</b></p> <p>P261</p> <p>P264</p> <p>P271</p> <p>P272</p> <p>P273</p> <p>P280</p> <p>P302+352</p> <p>P304+340</p> <p>P305+351+338</p> <p>P310</p> <p>P312</p> <p>P321</p> <p>P332+313</p> <p>P333+313</p> <p>P362</p> <p>P363</p> <p>P403+233</p> <p>P405</p> <p>P501</p>	<p>Harmful to aquatic life with long lasting effects.</p> <p>Avoid breathing dust/fume/gas/mist/vapours/spray.</p> <p>Wash ... thoroughly after handling.</p> <p>Use only outdoors or in a well-ventilated area.</p> <p>Contaminated work clothing should not be allowed out of the workplace.</p> <p>Avoid release to the environment.</p> <p>Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>IF ON SKIN: Wash with plenty of soap and water.</p> <p>IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.</p> <p>IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>Immediately call a POISON CENTER or doctor/physician.</p> <p>Call a POISON CENTER or doctor/physician if you feel unwell.</p> <p>Specific treatment (see ... on this label).</p> <p>If skin irritation occurs: Get medical advice/attention.</p> <p>If skin irritation or rash occurs: Get medical advice/attention.</p> <p>Take off contaminated clothing and wash before reuse.</p> <p>Wash contaminated clothing before reuse.</p> <p>Store in a well-ventilated place. Keep container tightly closed.</p> <p>Store locked up.</p> <p>Dispose of contents/container to ...</p>
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### 2.3. Other hazards

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.2. Mixtures

<p><b>3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate</b> <span style="float: right;"><b>&lt; 1%</b></span></p> <p><b>CAS-No.: 4098-71-9</b> <span style="margin-left: 150px;"><b>EC No.: 223-861-6</b></span></p>		
<table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <p>Classification (EC 1272/2008)</p> <p>Acute Tox. 3 - H331</p> <p>Skin Irrit. 2 - H315</p> <p>Eye Irrit. 2 - H319</p> <p>Resp. Sens. 1 - H334</p> <p>Skin Sens. 1 - H317</p> <p>STOT Single 3 - H335</p> <p>Aquatic Chronic 2 - H411</p> </td> <td style="width: 50%; vertical-align: top;"> <p>Classification (67/548)</p> <p>T;R23</p> <p>R42/43</p> <p>Xi;R36/37/38</p> <p>N;R51/53</p> </td> </tr> </table>	<p>Classification (EC 1272/2008)</p> <p>Acute Tox. 3 - H331</p> <p>Skin Irrit. 2 - H315</p> <p>Eye Irrit. 2 - H319</p> <p>Resp. Sens. 1 - H334</p> <p>Skin Sens. 1 - H317</p> <p>STOT Single 3 - H335</p> <p>Aquatic Chronic 2 - H411</p>	<p>Classification (67/548)</p> <p>T;R23</p> <p>R42/43</p> <p>Xi;R36/37/38</p> <p>N;R51/53</p>
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<p><b>3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate oligomers</b> <span style="float: right;"><b>10-30%</b></span></p> <p><b>CAS-No.: 53880-05-0</b> <span style="margin-left: 150px;"><b>EC No.: 931-312-3</b></span></p>		
<table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <p>Classification (EC 1272/2008)</p> <p>Skin Sens. 1 - H317</p> <p>STOT Single 3 - H335</p> </td> <td style="width: 50%; vertical-align: top;"> <p>Classification (67/548)</p> <p>Xi;R37.</p> <p>R43.</p> </td> </tr> </table>	<p>Classification (EC 1272/2008)</p> <p>Skin Sens. 1 - H317</p> <p>STOT Single 3 - H335</p>	<p>Classification (67/548)</p> <p>Xi;R37.</p> <p>R43.</p>
<p>Classification (EC 1272/2008)</p> <p>Skin Sens. 1 - H317</p> <p>STOT Single 3 - H335</p>	<p>Classification (67/548)</p> <p>Xi;R37.</p> <p>R43.</p>	
<p><b>Hexamethylene diisocyanate oligomers, Isocyanurate</b> <span style="float: right;"><b>30-60%</b></span></p> <p><b>CAS-No.: 28182-81-2</b> <span style="margin-left: 150px;"><b>EC No.: 931-274-8</b></span></p>		
<table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <p>Classification (EC 1272/2008)</p> <p>Acute Tox. 4 - H332</p> <p>Skin Sens. 1 - H317</p> <p>STOT Single 3 - H335</p> </td> <td style="width: 50%; vertical-align: top;"> <p>Classification (67/548)</p> <p>Xn;R20.</p> <p>Xi;R37.</p> <p>R43.</p> </td> </tr> </table>	<p>Classification (EC 1272/2008)</p> <p>Acute Tox. 4 - H332</p> <p>Skin Sens. 1 - H317</p> <p>STOT Single 3 - H335</p>	<p>Classification (67/548)</p> <p>Xn;R20.</p> <p>Xi;R37.</p> <p>R43.</p>
<p>Classification (EC 1272/2008)</p> <p>Acute Tox. 4 - H332</p> <p>Skin Sens. 1 - H317</p> <p>STOT Single 3 - H335</p>	<p>Classification (67/548)</p> <p>Xn;R20.</p> <p>Xi;R37.</p> <p>R43.</p>	

<b>HEXAMETHYLENE-DI-ISOCYANATE</b>		<b>&lt; 1%</b>
<b>CAS-No.: 822-06-0</b>	<b>EC No.: 212-485-8</b>	
Classification (EC 1272/2008) Acute Tox. 4 - H302 Acute Tox. 2 - H330 Skin Corr. 1C - H314 Resp. Sens. 1 - H334 Skin Sens. 1 - H317 STOT Single 3 - H335	Classification (67/548) T;R23 R42/43 Xi;R36/37/38	
<b>N,N-DIMETHYLCYCLOHEXYLAMINE</b>		<b>1-5%</b>
<b>CAS-No.: 98-94-2</b>	<b>EC No.: 202-715-5</b>	
Classification (EC 1272/2008) Flam. Liq. 3 - H226 Acute Tox. 3 - H301 Acute Tox. 3 - H311 Acute Tox. 2 - H330 Skin Corr. 1B - H314 Aquatic Chronic 2 - H411	Classification (67/548) T;R23/24/25. C;R34. N;R51/53. R10.	
<b>POLYOXYETHYLENE TRIDECYL ETHER PHOSPHATE</b>		<b>5-10%</b>
<b>CAS-No.: 9046-01-9</b>	<b>EC No.:</b>	
Classification (EC 1272/2008) Skin Irrit. 2 - H315 Eye Dam. 1 - H318 Aquatic Chronic 2 - H411	Classification (67/548) Xi;R41,R38. N;R51/53.	

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. Provide rest, warmth and fresh air. Get medical attention if any discomfort continues. Place unconscious person on the side in the recovery position and ensure breathing. For breathing difficulties oxygen may be necessary.

#### **Ingestion**

Get medical attention immediately! Rinse mouth thoroughly. Provide rest, warmth and fresh air. **DO NOT INDUCE VOMITING! NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS!** Provide fresh air, warmth and rest, preferably in comfortable upright sitting position.

#### **Skin Contact**

Remove affected person from source of contamination. Get medical attention promptly if symptoms occur after washing. Remove contaminated clothing immediately and wash skin with soap and water. Wash off promptly and flush contaminated skin with water. Promptly remove clothing if soaked through and flush skin with water.

#### **Eye Contact**

Remove victim immediately from source of exposure. 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

#### **General Information**

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

#### **Inhalation.**

Delayed, often serious breathing problems.

#### **Ingestion**

May cause chemical burns in mouth and throat.

#### **Skin Contact**

Skin irritation. Allergic rash.

**Eye Contact**

May cause blurred vision and serious eye damage.

**4.3. Indication of any immediate medical attention and special treatment needed****SECTION 5: FIREFIGHTING MEASURES****5.1. Extinguishing media****Extinguishing Media**

Fire can be extinguished using: Dry chemicals, sand, dolomite etc. Foam, carbon dioxide or dry powder.

**5.2. Special hazards arising from the substance or mixture****Hazardous Combustion Products**

When heated, toxic and corrosive vapours/gases may be formed.

**Specific Hazards**

Closed containers can burst violently when heated, due to excess pressure build-up.

**5.3. Advice for firefighters****Special Fire Fighting Procedures**

Cool containers exposed to flames with water until well after the fire is out. Keep run-off water out of sewers and water sources. Dike for water control.

**Protective Measures In Fire**

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**

Ensure suitable personal protection (including respiratory protection) during removal of spillages in a confined area.

**6.2. Environmental precautions**

Do not discharge into drains, water courses or onto the ground. 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**

Wear necessary protective equipment. Flush spilled material into suitable retaining areas or container with large quantities of water. Ensure that waste and contaminated materials are collected and removed from the work area as soon as possible in a suitably labelled container.

**6.4. Reference to other sections****SECTION 7: HANDLING AND STORAGE****7.1. Precautions for safe handling**

Avoid spilling, skin and eye contact. Keep away from heat, sparks and open flame. Ventilate well, avoid breathing vapours. Use approved respirator if air contamination is above accepted level. Do not eat, drink or smoke when using the product. Avoid inhalation of vapours/spray and contact with skin and eyes.

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

Store in tightly closed original container in a dry, cool and well-ventilated place.

**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**

Name	STD	TWA - 8 Hrs		STEL - 15 Min		Notes
3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate	WEL		0.02 mg/m <sup>3</sup> (Sen)		0.07 mg/m <sup>3</sup> (Sen)	
HEXAMETHYLENE-DI-ISOCYANATE	WEL		0.02 mg/m <sup>3</sup> (Sen)		0.07 mg/m <sup>3</sup> (Sen)	

WEL = Workplace Exposure Limit.

**8.2. Exposure controls****Protective Equipment**



#### Hand Protection

Use protective gloves made of: Rubber, neoprene or PVC. For exposure of 4 to 8 hours use gloves made of: Viton rubber (fluor rubber).

#### Eye Protection

Wear splash-proof eye goggles to prevent any possibility of eye contact.

#### Other Protection

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

#### Hygiene Measures

Use appropriate skin cream to prevent drying of skin. Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly with soap & water if skin becomes contaminated. Promptly remove any clothing that becomes contaminated. When using do not eat, drink or smoke. **DO NOT SMOKE IN WORK AREA!**

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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

Appearance	Clear, yellowish liquid
Colour	Colourless to pale yellow
Odour	Characteristic
Relative Density	1.08
Flash Point (°C)	76

### 9.2. Other information

## SECTION 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

There are no known reactivity hazards associated with this product.

### 10.2. Chemical stability

Stable under normal temperature conditions and recommended use.

### 10.3. Possibility of hazardous reactions

Reacts violently with water. Alcohols, Amines, Bases, protic solvents, water & aqueous solutions with a great release of CO<sub>2</sub> and hence a risk of pressure build up in confined areas and forms an insoluble solid precipitate

### 10.4. Conditions to avoid

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

### 10.5. Incompatible materials

#### Materials To Avoid

Strong oxidising substances. Strong acids.

### 10.6. Hazardous decomposition products

Fire creates: Acrid smoke/fumes of: Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>).

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects

Toxic Dose 1 - Ld 50	3038 mg/kg (oral rat)
	Positive.

#### Germ Cell Mutagenicity (In Vivo)

Chromosome aberration:

Positive.

#### Skin Contact

Risk of sensitisation or allergic reactions among sensitive individuals.

#### Eye Contact

Risk of serious damage to eyes.

#### Route of entry

Ingestion. Skin and/or eye contact.

**Target Organs**

Eyes Skin

**SECTION 12: ECOLOGICAL INFORMATION****Ecotoxicity:**

There are no data on the ecotoxicity of this product. The product contains a substance which is harmful to aquatic organisms and which may cause long term adverse effects in the aquatic environment.

**12.1. Toxicity****12.2. Persistence and degradability****12.3. Bioaccumulative potential****12.4. Mobility in soil****12.5. Results of PBT and vPvB assessment****12.6. Other adverse effects****SECTION 13: DISPOSAL CONSIDERATIONS****General Information**

When handling waste, consideration should be made to the safety precautions applying to handling of the product.

**13.1. Waste treatment methods**

Dispose of waste and residues in accordance with local authority requirements.

**SECTION 14: TRANSPORT INFORMATION****14.1. UN number****14.2 UN Proper Shipping Name****14.3 Transport hazard class(es)****14.4. Packing group****14.5. Environmental hazards****14.6. Special precautions for user****14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code****SECTION 15: REGULATORY INFORMATION****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****Uk Regulatory References**

The Control of Substances Hazardous to Health Regulations 2002 (S.I 2002 No. 2677) with amendments.

**Environmental Listing**

No listing noted.

**Approved Code Of Practice**

Classification and Labelling of Substances and Preparations Dangerous for Supply. Safety Data Sheets for Substances and Preparations.

**Guidance Notes**

Workplace Exposure Limits EH40. Introduction to Local Exhaust Ventilation HS(G)37. Isocyanates toxic hazards and precautions EH16.

**Eu Legislation**

Dangerous Preparations Directive 1999/45/EC. Dangerous Substance Directive 67/548/EEC.

**15.2. Chemical Safety Assessment**

No chemical safety assessment has been carried out.

**SECTION 16: OTHER INFORMATION****General Information**

Only trained personnel should use this material.

**Issued By** HS&E Manager.

**Revision Date** 23/03/2016

**Revision**

1

**Risk Phrases In Full**

R10	Flammable.
R20	Harmful by inhalation.
R23	Toxic by inhalation.
R23/24/25	Toxic by inhalation, in contact with skin and if swallowed.
R34	Causes burns.
R36/37/38	Irritating to eyes, respiratory system and skin.
R37	Irritating to respiratory system.
R38	Irritating to skin.
R41	Risk of serious damage to eyes.
R42/43	May cause sensitisation by inhalation and skin contact.
R43	May cause sensitisation by skin contact.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Hazard Statements In Full**

H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H411	Toxic to aquatic life with long lasting effects.

**Disclaimer**

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.