



SAFETY DATA SHEET for INDURO

Issued by Morrells Woodfinishes Ltd,

1. IDENTIFICATION OF THE SUBSTANCE OR PREPARATION AND THE COMPANY/UNDERTAKING

PRODUCT NAME - INDURO RANGE OF WATERBORNE FLOOR LACQUERS

INTENDED USE - Application to Timber Substrate

For Professional Use only

SUPPLIER - Morrells Woodfinishes Ltd, - Wellington Works, - Mill Lane, - Woodley, - Stockport. SK6 1RN. Tel 0161 406 5300.

Emergency Tele -

2. COMPOSITION/INFORMATION OF INGREDIENTS

A mixture of water, resin and organic solvent as required.

Substance Name	EINECS No.	CAS No.	% Conc Range	Hazard Symbols	Risk Phrases
DIPROPYLENE GLYCOL METHYL ETHER		34590-94-8	>2.5% & =<10%		

for full text of Risk Phrases see Section 16 'Other Information'

3. HAZARDS IDENTIFICATION

The product is not classified as dangerous according to the CHIP Regulations.

4. FIRST AID MEASURES

GENERAL - In all cases of doubt or when symptoms persist seek medical attention. Never give anything by mouth to an unconscious person.

INHALATION - Remove to fresh air, keep patient warm and at rest. If breathing is irregular or has stopped administer artificial respiration. Give nothing by mouth. If unconscious place in recovery position and seek medical advice.

EYE CONTACT - Remove contact lenses. Irrigate copiously with clean, fresh water for at least 10 mins, holding the eyelids apart and seek medical advice.

SKIN CONTACT - Remove contaminated clothing. Wash skin thoroughly with soap and water or use a proprietary skin cleaner. Do NOT use solvents or thinners.

INGESTION - If accidentally swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

5. FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA - Carbon dioxide, Dry Powder, Alcohol Resistant Foam, Water Spray Mist.

NOT TO BE USED - Water Jet.

SPECIAL INSTRUCTIONS FOR FIRE FIGHTING PERSONNEL - Fire will produce dense black smoke containing hazardous products of combustion (see Section 10). Exposure to decomposition products may be a hazard to health. Appropriate self-contained breathing apparatus may be required. Cool closed containers exposed to fire with water spray. Do not allow run off from fire fighting to enter drains or water courses.

6. ACCIDENTAL RELEASE MEASURES

Exclude sources of ignition and ventilate the area. Exclude non-essential personnel. Avoid breathing vapours. Refer to protective measures listed in sections 7 & 8. Contain and collect spillages with non-combustible absorbent materials e.g. sand, earth, vermiculite, diatomaceous earth and place in a suitable container for disposal in accordance with the waste regulations (see sect 13). Do not allow to enter drains or water courses. Clean preferably with a detergent; avoid use of solvents. If the product enters drains or sewers, immediately contact the local water company; in the case of contamination of streams, rivers or lakes the relevant environment agency.

7. STORAGE & HANDLING

Prevent airborne concentrations higher than the OEL. Keep the container tightly closed. Exclude sources of heat, sparks & open flames. Avoid skin & eye contact and the inhalation of vapour and mist. Smoking, eating & drinking should be prohibited in storage and use areas. For Occupational Exposure Controls measures, see section 8. Never use pressure to empty: the container is not a pressure vessel. Always keep in containers made of the same material as the supply container. Good housekeeping standards, regular safe removal of waste materials and regular maintenance of spray booth filters will minimise the risks of spontaneous combustion and other fire hazards.

Observe the label precautions. Store between 5 & 25°C in a dry well ventilated place away from sources of heat, ignition and direct sunlight. No smoking. Prevent unauthorised access. Containers which are opened should be properly resealed and kept upright to prevent leakage. Store separately from oxidising agents and strongly alkaline and strongly acidic materials. The principles contained in the HSE's guidance notes Chemical Warehousing - Storage of Packaged Dangerous substances and the Storage of Flammable liquids in containers should be observed when storing this product.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Measures - Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and/or solvent vapours below the relevant Occupational Exposure Limit Values, suitable respiratory protective equipment must be worn (See Occupational Exposure Controls below)

Substance Name	Occupational Exposure Limits 8hr LTEL	Occupational Exposure Limits 15min STEL	Notation
DIPROPYLENE GLYCOL METHYL ETHER	50.00ppm 308.00mg/m ³		Sk OES

NOTES

Notations = Sk - risk of absorption through skin Sen - respiratory sensitizer.

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Monitoring may be appropriate (see Biological Monitoring Guidance Value in EH40 Table 3)

OEL's are from EH40 except where marked SUP which are assigned by the supplier of the substance.

General Protection - All ppe, including rpe, used to control exposure to hazardous substances must be selected to meet the requirements of the COSHH regulations.

Respiratory Protection - Air fed respiratory protective equipment should be worn when this product is sprayed if the exposure of the sprayer or other people nearby cannot be controlled to below the OELV and engineering controls and methods cannot reasonably be improved.

Hand Protection - When skin exposure may occur, advice should be sought from glove suppliers on appropriate types and usage times for this product. The instructions and information provided by the glove supplier on use, storage, maintenance and replacement must be followed. Barrier creams may help to protect exposed areas of skin but are not substitutes for full physical protection. They should not be applied once exposure has occurred.

Eye Protection - Eye protection designed to protect against liquid splashes should be worn.

Skin Protection - Cotton or cotton/synthetic overalls or coveralls are normally suitable. Grossly contaminated clothing should be removed and the skin washed with soap & water or a proprietary skin cleaner. DO NOT USE SOLVENTS OR THINNERS AS SKIN CLEANING AGENTS. Regular skin inspection of users of this product is recommended. ALWAYS WASH YOUR HANDS BEFORE EATING, SMOKING OR USING THE TOILET.

9. PHYSICAL & CHEMICAL PROPERTIES

PHYSICAL STATE

Viscous liquid

SPECIFIC GRAVITY

1.015 gms/cc Method Calculation

VAPOUR DENSITY

HEAVIER than Air

LOWER EXPLOSION LIMIT

.8 % Vol.

SOLUBILITY IN WATER

MISCIBLE

10. STABILITY & REACTIVITY

Stable under the recommended storage & handling conditions (see Sect.7). In a fire, hazardous decomposition products such as smoke, carbon monoxide, carbon dioxide, and oxides of nitrogen may be produced. Keep away from oxidising agents and strongly alkaline and strongly acidic materials to prevent the possibility of an exothermic reaction.

11. TOXICOLOGICAL INFORMATION

There is no data available on the product itself. Exposure to organic solvent vapours in excess of the stated occupational exposure limit may result in adverse health effects such as irritation of the mucous membrane and respiratory system and adverse effects on kidney, liver and central nervous system. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases loss of consciousness. Splashes in the eyes may cause irritation and reversible local damage. Solvents may cause some of the above effects by absorption through the skin. Repeated or prolonged contact with the product may cause removal of natural fats from the skin, resulting in non-allergic contact dermatitis and absorption through the skin. Splashes in the eye may cause irritation and reversible local damage. The product has been assessed following the conventional method in CHIP and is classified for toxicological hazards accordingly. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short term and long term exposure by oral, inhalation and dermal routes of exposure and eye contact. See sections 3 & 15 for details of the resulting hazard classification.

12. ECOLOGICAL INFORMATION

There is no data available on the product itself. The product should not be allowed to enter drains or water courses or be deposited where it can affect ground or surface waters. LAPC/LAPPC/IPPC requirements of regulations made under the Environmental Protection Act/Pollution Prevention and Control Act may apply to this product.

13. DISPOSAL CONSIDERATIONS

Do not allow into drains or water courses or dispose of where ground or surface waters may be affected. Wastes, including emptied containers, are controlled wastes and should be disposed of in accordance with regulations made under the Control of Pollution Act & Environmental Protection Act. Using information provided in this data sheet, advice should be obtained from the relevant environment agency whether the special waste regulations apply.

14. TRANSPORT INFORMATION

		Road/Rail
<i>Designation</i>	Not Classified	
		Sea
<i>Shipping Name</i>	Not Classified	
		Air
<i>Shipping Name</i>	Not Classified	
		International Road/Rail
<i>Shipping Name</i>	Not Classified	

15. REGULATORY INFORMATION

The product is classified and labelled for supply in accordance with the Chemicals (Hazard Information & Packaging) Regulations as follows.

Classification **Contains**

Risk Phrases

Safety Phrases

'P' Phrases

Do not breathe Vapour or Spray

16. OTHER INFORMATION

Date of Origination 24/04/09

Date of last revision 24/04/09

The information contained in this safety data sheet is provided in accordance with the requirements of the Chemicals (Hazard Information & Packaging) Regulations. The product should not be used for purposes other than those shown in sect.1 without first referring to the supplier and obtaining written instructions. As the specific conditions of use of the product are outside of the suppliers control, the user is responsible for ensuring that the requirements of relevant legislation are complied with.

The information contained in this Safety Data Sheet is based on the present state of knowledge and current national 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.

Further information and relevant advice can be found in:-

- The Control of Substances Hazardous to Health Regulations 1999.(SI 1999:437) TSO. COSHH Essentials:easy steps to control chemicals (HSG 193) HSE Books
- The Manual Handling Operations Regulations 1992 (SI 1992:2793) TSO. Chemical Warehousing: Storage of flammable liquids in Containers (HSG51) HSE Books
- Storage of Packaged Dangerous Substances (HSG71) HSE books. The Environmental Protection Duty of Care) Regs 1992 (SI 1992:2839) TSO. A guide to Working with Solvents (INDG 272) HSE Books
- Dangerous Substances and Explosive Atmospheres Regs 2002 (SI 2002:2776) TSO.

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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		

Technical Data	<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>This range is not suitable for use on areas where regular contact with water is likely e.g. bathrooms.</p>
Properties	<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, Salmonella, Listeria and other harmful bacterial with a 99% kill rate within 24 hours.</p>
Recommended use	<p>The Induro XL2 Range of lacquers are suitable for use on softwood & 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>
Mixing Guidelines	<p>Mix 9 parts lacquer to 1 part 8CAT/XL2 by volume and mix well prior to use. The catalysed lacquer should be used within 5 hours of mixing.</p> <p>The catalysed lacquer should 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>
Application	<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 8 m² per litre, this</p>

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This information is provided in good faith and without prejudice

	however is dependant on the method of application, porosity of the timber and type/desired finish.
Handling	<p>These lacquers should ideally be used (lacquer & 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. Recoatable: 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.</p> <p>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>
Cleaning	Application equipment should be cleaned with water immediately after use.
System Guidelines	<p>Morrells recommends the following guidance for use of this product range:</p> <p>Typical Domestic Finish: 1 coats at 130 - 150mls/m² per coat of Induro GP or EB Seal (Dry Film Thickness ~ 42µ per coat), 2 coats at 100 - 120mls/m² per coat of Induro XL2 Lacquer (Dry Film Thickness ~ 30 - 35µ per coat).</p> <p>Typical Commercial Finish: 1 coats at 130 - 150mls/m² per coat of Induro GP or EB Seal (Dry Film Thickness ~ 42µ per coat), 3 - 4 coats at 100 - 120mls/m² per coat of Induro XL2 Lacquer (Dry Film Thickness ~ 35 - 40µ per coat).</p> <p>Using these products in systems outside these guidelines can lead to immediate and latent problems with the integrity of the finish.</p>
Maintenance	<p>Cleaning should be avoided until the lacquer has reached full cure – approx 7 days after application.</p> <p>The use of good quality entrance mats and furniture pads are recommended to avoid damage to the finish. Surfaces should be swept or vacuumed regularly to avoid dust and grit build up as this would be abrasive to the surface and before routine maintenance.</p> <p>Induro Floor Cleaner (cleanse) should be used for routine cleaning to maintain the appearance of floors finished with these lacquers.</p> <p>Induro Floor Reviver (revive xl-10 or revive xl-30) is recommended for use to revitalise the appearance of flooring damaged by scratch and scuff marks. For best results it is advisable to lightly de-nib the flooring with a Red Scotchbrite, then wipe clean using Cleanse prior to the application of the Floor Reviver, this should be left for 1 hour before buffing. Alternatively the Floor Reviver can be applied direct to the flooring and left for 1hour before buffing.</p>

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Important Information	<ul style="list-style-type: none"> ➤ Do not use in areas of high humidity or condensation. ➤ Only Morrells standard range of LF stains are recommended under XL ranges. ➤ Excessive coating weights can lead to cracking or lifting. ➤ Leave adequate time between coats. Do not apply more than 3 coats in one day. De-nib between coats to aid adhesion. ➤ Do not overcoat with solvent borne products. ➤ Avoid contact with iron, copper, zinc, aluminum and platinum as these can attack the aqueous polymer. ➤ When coating darker timbers, such as walnut, mahogany or teak, slight bleaching may occur. ➤ Waterborne products should have nominated finishing equipment. ➤ Product should be stored above 5°C and protected from frost. ➤ Optimum application is achieved between 18°C and 22°C with good air movement and ventilation. ➤ Finished products should not be subjected to environments with temperatures of < 2°C. ➤ In scope of 2004/42/EC.
Health & Safety	<p>Reference should be made to the appropriate MSDS for this product range, which can be found at www.morrells.co.uk</p> <p>The use of appropriate personal protection equipment (PPE) is recommended.</p> <p>These products are intended for professional use only.</p>

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