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**Product name :** **NORSODYNE 6397.111** Page : 1/7  
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This sheet supersedes the one dated : 2004-01-30

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

**PRODUCT NAME :** NORSODYNE 6397.111  
**CHEMICAL NAME OR GENERIC NAME :** Unsaturated polyester resin  
**APPLICATIONS :** Production of fibre reinforced composites.  
**SUPPLIER :** CCP Composites UK Ltd  
LAPORTE ROAD  
STALLINGBOROUGH  
NORTH EAST LINCS. DN41 8DR  
UNITED KINGDOM  
Tel : +44 (0) 1469 572464  
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**INTERNET :** <http://www.ccpcomposites.com>  
**URGENCE / EMERGENCY / EMERGENCIA / NOTRUFNUMMER / N° 24/24 :**

Europe, America, Middle East, Africa (European language countries)	+44 (0) 1235 239 670
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**CONTACT PERSON :** [rccp.SDSmanagement@ccpcomposites.com](mailto:rccp.SDSmanagement@ccpcomposites.com)

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**2. HAZARDS IDENTIFICATION**

Flammable.  
- Xn; Harmful by inhalation.  
- Xi; Irritating to eyes and skin.  
May produce an allergic reaction.

**PHYSICAL RISKS.**  
The mixture of product vapour and air could be explosive.  
Strongly exothermic polymerisation may be caused by:  
Heat.  
Free radical formers.  
Peroxides.

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## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Name	EC No.	CAS No.	Content	Symbol	R-phrases
styrene		100-42-5	40-45 %	Xn	R-10, 20, 36/38
cobalt octoate		136-52-7	0.05-0.2 %	Xi	R-38, 43

SEE SECTION 16 FOR EXPLANATIONS TO R-PHRASES

## 4. FIRST AID MEASURES

**INHALATION :** Take person out of the contaminated area. Remove patient to fresh air.  
Call a doctor in case of doubt or if symptoms persist.

**INGESTION :** DO NOT INDUCE VOMITING!  
Put under medical supervision.  
If swallowed, seek immediate medical advice and show container or label to the doctor.

**SKIN :** Remove contaminated clothing.  
Wash with soap and water and rinse with water.

**EYES :** Promptly wash eyes with plenty of water while lifting the eye lids.  
Continue to rinse for at least 15 minutes.  
Contact physician if irritation persists.

## 5. FIRE FIGHTING MEASURES

**EXTINGUISHING MEDIA :** RECOMMENDED :  
Powder, foam or CO<sub>2</sub>.  
Sand.  
Water spray.  
NOT SUITABLE :  
Water jet.

**SPECIAL FIRE FIGHTING PROCEDURES :**  
Cool the container with sprayed water to avoid polymerisation.  
Eliminate all sources of combustion.  
Treat as hydrocarbon fire.  
Limit spreading of extinguishing fluids.

**HAZARDOUS COMBUSTION PRODUCTS :**  
By combustion, formation of toxic products : carbon, carbon monoxide, carbon dioxide...

**PROTECTIVE MEASURES IN FIRE :** Wear individual breathing apparatus.

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## 6. ACCIDENTAL RELEASE MEASURES

PERSONAL PROTECTION :

Avoid inhaling vapours.  
Wear protective equipment.  
Gloves - Goggles - Boots.  
Wear self-contained breathing apparatus.

ENVIRONMENTAL PROTECTION :

Do NOT discharge in sewers.  
Do not allow this chemical to enter the environment.  
If the product contaminates lakes, rivers or sewers, inform appropriate authorities in accordance with local regulations.

SPILL CLEANUP METHODS :

RECOVERY :  
Spread sand.  
Collect the product in a container pending future destruction.  
DISPOSAL :  
Burn in an approved installation for liquids. **INCOMPATIBLE**  
MATERIALS :  
Wood sawdust.

## 7. HANDLING AND STORAGE

USAGE PRECAUTIONS :

Unloading recommended procedure : pumping or under nitrogen pressure.  
Collect vapours at source.  
Mechanical ventilation or local exhaust ventilation is required.  
Durind spraying wear suitable respiratory equipment.  
Do NOT smoke when using.  
Take precautionary measures against electrostatic discharges.

STORAGE PRECAUTIONS :

SUITABLE :  
Keep at temperature not exceeding 30 °C.  
Keep in cool, dry, ventilated storage and closed containers.  
Keep away from heat, sparks and open flame.  
No smoking.  
Equipment earthing.

STORAGE CRITERIA :

INCOMPATIBLE MATERIALS :  
Strong oxidizing agents.  
Catalysts and accelerators.  
PACKAGING MATERIALS RECOMMENDED :  
Metal packaging.  
GRP Tanks (Reinforced Glass Polyester).  
Except those not recommended.  
PACKAGING MATERIALS NOT SUITABLE :  
Aluminium.  
Copper or copper alloy and plastics.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredient name	CAS no.	Reference	Date	LT Exp 8 Hrs	ST Exp 15 Min
styrene	100-42-5	EH 40 (HSE)	2005	100 ppm	250 ppm

PROTECTIVE EQUIPMENT :



RESPIRATORS :

Do NOT breathe vapours.  
Wear suitable respiratory protection. (AB)

PROTECTIVE GLOVES :

Wear solvent-proof gloves. (Neoprene).

EYE PROTECTION :

Wear approved safety goggles.

OTHER PROTECTION :

Wear suitable protective clothing.

HYGIENIC WORK PRACTICES :

Change work clothing daily before leaving work place.  
Eating, smoking and water fountains prohibited in immediate work area.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE :

Liquid thixotropic

COLOUR :

Blue. Violet.

ODOUR :

Styrene.

PHYSICAL DATA COMMENTS :

(#) Values related to styrene, not to the preparation.  
Take precautionary measures against electrostatic discharges.

BOILING POINT (°C, INTERVAL) :

> 145°C  
Pressure :760mmHg

DENSITY/SPECIFIC GRAVITY (g/ml) :

1.05 - 1.2  
Temperature (°C) :20°C

VAPOUR PRESSURE :

# 652 Pa  
Temperature (°C) :20°C

VISCOSITY (INTERVAL) :

3.3 - 3.7 d Pa.s  
Temperature (°C) :25°C

SOLUBILITY DESCRIPTION :

Insoluble in water.  
Soluble in most organic solvents.

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FLASH POINT (°C) : 31°C  
Method :DIN EN 22719 - ISO 2719

AUTO IGNITION TEMP. (°C) : 490°C #

FLAMMABILITY LIMIT - LOWER(%) : 1.1 #

FLAMMABILITY LIMIT - UPPER(%) : 6.1 #

## 10. STABILITY AND REACTIVITY

STABILITY : Stable under normal storage condition.

CONDITIONS TO AVOID : Avoid heat.  
Light.  
Away from sources of ignition.

POLYMERISATION DESCRIPTION : Exothermic polymerisation may occur by :  
Strong oxidizing agents.  
Peroxides.  
Radical formers.

HAZARDOUS DECOMP. PRODUCTS :  
By thermal decomposition, formation of :  
Carbon.  
Carbon monoxide (CO).  
Carbon dioxide (CO<sub>2</sub>).

## 11. TOXICOLOGICAL INFORMATION

SENSITIZATION : May produce an allergic reaction.

INHALATION : Harmful by inhalation.  
Symptoms and signs include : headache, dizziness, tiring.

SKIN : Irritating to skin.

EYES : Irritating to eyes.

## 12. ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION : Do not discharge into drains or the environment ; dispose to an authorised waste collection point.

DEGRADABILITY : (#) Easily biodegradable.  
(#) Values related to styrene, not to the preparation.

## 13. DISPOSAL CONSIDERATIONS

DISPOSAL METHODS : Incineration in approved installation.  
Incineration for liquid resins. Crushing then incineration for solid resins.  
Cleaned packaging may be recycled.  
This material and its container must be disposed of as hazardous waste.

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## 14. TRANSPORT INFORMATION

**GENERAL :** The data included in this section don't take into account the exemptions regarding each transport regulation.

**LABEL FOR CONVEYANCE :**



**- ROAD TRANSPORT:**

UN NO. ROAD : 1866

ADR CLASS NO. : 3

CLASSIFICATION CODE : F1

ADR PACKING GROUP : III

HAZARD NO. (ADR) : 30 Flammable liquid (flash point between 23°C and 61°C, inclusive) or flammable liquid or solid in the molten state with a flash point above 61°C, heated to a temperature equal to or above its flash point, or self heating liquid.

ADR LABEL NO. : 3

PROPER SHIPPING NAME (NATIONAL) :  
RESIN SOLUTION

**- RAIL TRANSPORT:**

RID CLASS NO. : 3

RID ITEM NO. : III

RID PACKING GROUP : III

**- SEA TRANSPORT:**

UN NO. SEA : 1866

IMDG CLASS : 3

IMDG PACKING GROUP : III

EMS NO. : F-E, S-E

MARINE POLLUTANT : No.

**- AIR TRANSPORT:**

UN NO., AIR : 1866

IATA/ICAO CLASS : 3

IATA/ICAO PACKING GROUP : III

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## 15. REGULATORY INFORMATION

SYMBOLS :



CONTAINS : styrene

RISK PHRASES : R-10 Flammable.  
R-20 Harmful by inhalation.  
R-36/38 Irritating to eyes and skin.

SAFETY PHRASES : Contains cobalt octoate. May produce an allergic reaction.  
S-23 Do not breathe gas/fumes.  
S-36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

EU DIRECTIVES : Directive 91/155/EEC amended by Directive 93/112/EEC and Directive 2001/58/EC : Safety data sheets.  
Dangerous preparations : Directive 1999/45/EC amended by Directive 2001/60/EC - OJEC L226 - 22/08/2001.  
Commission Directive 2004/73/EC of 29 April 2004 adapting to technical progress for the 29th time Council Directive 67/548/EEC on the approximation of the laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances (Official Journal L 216 - 16/06/2004).

## 16. OTHER INFORMATION

EXPLANATIONS TO R-PHRASES IN SECTION 2 :

R-10 Flammable.  
R-20 Harmful by inhalation.  
R-36/38 Irritating to eyes and skin.  
R-38 Irritating to skin.  
R-43 May cause sensitization by skin contact.

USER NOTES: The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The 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, unless specified in the text.

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