

## SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

SDS n° : FP16542

### NORSODYNE EASYLAM 30 LSE

Former date no data available

Revision Date 10-Aug-2010

Version: 1

#### 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

##### Product identifier

**Product name** NORSODYNE EASYLAM 30 LSE  
**REACH Registration Number** Pre-Registration completed  
**Chemical Name** Unsaturated polyester resin  
**Pure substance/mixture** Mixture

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

**Sector of use** Resins for composites, Contact us before using for food contact application.

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

**Manufacturer** CRAY VALLEY LTD  
LAPORTE ROAD  
STALLINGBOROUGH, NORTH EAST LINCS. DN41 8DR  
UNITED KINGDOM  
Tel: +44 (0) 1469 572464  
Fax: +44 (0) 1469 572988

##### For further information, please contact

**E-mail address** Rrsn.SDSmanagement@crayvalley.com  
**Internet Address** <http://www.crayvalley.com>

##### Emergency telephone number

This telephone number is available 24 hours per day, 7 days per week.	
Europe, America, Israel, Africa (except Arabic speaking countries) :	+44 (0) 208 762 8322
Middle East, Africa (Arabic speaking countries) :	+96 134 87 287
Asia Pacific	+65 633 44 177

#### 2. HAZARDS IDENTIFICATION

The mixture is classified as dangerous in accordance with Directive 1999/45/EC.

##### Classification

**Symbol(s)** Xn - Harmful  
**Classification** R10 - Xn;R20 - Xi;R36/38

##### Most important hazards

**R-phrases(s)** Irritating to eyes and skin  
Flammable.  
Harmful by inhalation

##### Other hazards which do not result in classification

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**Environmental properties** Should not be released into the environment.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Hazardous components**

Chemical Name	EC-No	REACH Registration Number	CAS-No	Weight percent	Classification (67/548)
Styrene	202-851-5	no data available	100-42-5	~ 25	R10 Xn; R20 Xi; R36/38
phthalic anhydride	201-607-5	no data available	85-44-9	~ 0.5	Xn; R22 Xi; R37/38 R41 R42/43

For the full text of the R-phrases mentioned in this Section, see Section 16.

### 4. FIRST AID MEASURES

Description of first aid measures

<b>Eye Contact</b>	Rinse thoroughly with plenty of water, also under the eyelids. Keep eye wide open while rinsing. If symptoms persist, call a physician
<b>Skin Contact</b>	Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes If skin irritation persists, call a physician
<b>Inhalation</b>	Move to fresh air If not breathing, give artificial respiration Consult a physician
<b>Ingestion</b>	Do NOT induce vomiting. Rinse mouth. If symptoms persist, call a physician
<b>Protection of first-aiders</b>	Use personal protective equipment

Most important symptoms/effects, acute and delayed

<b>Eye Contact</b>	Irritating to eyes
<b>Skin Contact</b>	Irritating to skin
<b>Ingestion</b>	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Indication of immediate medical attention and special treatment needed, if necessary

<b>General advice</b>	If symptoms persist, call a physician Show this safety data sheet to the doctor in attendance Do not breathe dust/fume/gas/mist/vapours/spray
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### 5. FIRE-FIGHTING MEASURES

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### Extinguishing media

**Suitable extinguishing media** Cool containers / tanks with water spray, Dry chemical, Foam, Carbon dioxide (CO<sub>2</sub>)

**Extinguishing Media Which Must not be Used for Safety Reasons** Do not use a solid water stream as it may scatter and spread fire.

### Special hazards arising from the substance or mixture

**Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases** Vapours may form explosive mixtures with air. Most vapours are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks)

### Advice for fire-fighters

**Special protective equipment for fire-fighters** Wear self-contained breathing apparatus and protective suit.

**Other information** Cool containers / tanks with water spray.  
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

**Personal precautions** Evacuate personnel to safe areas.  
Remove all sources of ignition  
Take precautionary measures against static charges.  
Ensure adequate ventilation  
Use personal protective equipment

### Environmental precautions

**Environmental precautions** The product should not be allowed to enter drains, water courses or the soil.  
Do not flush into surface water or sanitary sewer system  
Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

### Methods and materials for containment and cleaning up

**Methods for cleaning up** Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13)

**Other information** See Section 12 for additional Ecological Information

## 7. HANDLING AND STORAGE

### Handling

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**Advice on safe handling**

Take precautionary measures against static charges.  
To avoid ignition of vapours by static electricity discharge, all metal parts of the equipment must be grounded  
Use only in area provided with appropriate exhaust ventilation  
Wear personal protective equipment  
Do not eat, drink or smoke when using this product

**Prevention of fire and explosion**

Keep away from open flames, hot surfaces and sources of ignition Do not use compressed air for filling, discharging or handling. Empty containers may contain flammable or explosive vapours

Conditions for safe storage, including any incompatibilities**Technical measures/Storage conditions**

Keep containers tightly closed in a dry, cool and well-ventilated place.  
Keep at temperature not exceeding 30°C  
Keep away from heat and sources of ignition.

**Materials to avoid**

Strong oxidizing agents, Peroxides

**Packaging material**

metallic GRP Tanks (Reinforced Glass Polyester)

**Unsuitable materials for containers** Aluminium copper Copper alloys Plastics

Specific end use(s)**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**Occupational Exposure limits**Occupational Exposure limits**

Chemical Name	European Union	The United Kingdom	Ireland
Styrene 100-42-5		STEL 250 ppm STEL 1080 mg/m <sup>3</sup> TWA 100 ppm TWA 430 mg/m <sup>3</sup>	TWA 20 ppm TWA 85 mg/m <sup>3</sup> STEL 40 ppm STEL 170 mg/m <sup>3</sup>
phthalic anhydride 85-44-9		STEL 12 mg/m <sup>3</sup> TWA 4 mg/m <sup>3</sup> Sen+	TWA 4 mg/m <sup>3</sup> STEL 12 mg/m <sup>3</sup> Sensitizer

**Legend:**

+	Sensitisers
*	Skin designation
**	Hazard Designation
C:	Carcinogen
M:	Mutagen
R:	Toxic to reproduction

Biological standards

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### Exposure controls

#### Occupational exposure controls

##### **Engineering measures**

Apply technical measures to comply with the occupational exposure limits. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment.

##### **Hygiene measures**

When using, do not eat, drink or smoke Provide regular cleaning of equipment, work area and clothing

##### **Personal protective equipment**

###### **General Information**

Use personal protective equipment.

###### **Respiratory protection**

None under normal use conditions.

###### **Eye protection**

If splashes are likely to occur, wear: Safety glasses with side-shields

###### **Skin and body protection**

Antistatic boots. Wear fire/flamm resistant/retardant clothing. Impervious gloves.

###### **Hand protection**

Protective gloves

### Environmental exposure controls

**Environmental exposure controls** Do not allow material to contaminate ground water system.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

**Appearance** beige  
opaque  
**Physical state @20°C** liquid  
**Odour** Styrene

<u>Property</u>	<u>Values</u>	<u>Remarks</u>
<b>pH</b>		no data available
<b>pH (as aqueous solution)</b>		no data available
<b>Boiling point</b>		no data available
<b>Flash point</b>	31 °C	no data available
<b>Explosive properties</b>	no data available	
<b>Vapour pressure</b>	6 hPa	20°C
<b>Density</b>	1.23 g/cm <sup>3</sup>	20°C
<b>Water solubility</b>	Insoluble in water	
<b>Solubility in other solvents</b>	Soluble in most organic solvents	

### Other information

<u>Property</u>	<u>Values</u>	<u>Remarks</u>
<b>Partition coefficient: n-octanol/water</b>		no data available

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Viscosity	2.8 - 3.4 dPa.s	25 °C
Vapour density		no data available
Autoignition temperature		no data available
Melting point/range		no data available
Specific Gravity		no data available
Bulk density		no data available
Freezing point		no data available
Softening point		no data available

### 10. STABILITY AND REACTIVITY

#### Reactivity

#### Chemical stability

**Stability** Stable under recommended storage conditions.

#### Possibility of hazardous reactions

**Hazardous polymerisation** Polymerisation can occur.

#### Conditions to avoid

**Conditions to avoid** Heat, flames and sparks.  
Exposure to light.  
Take precautionary measures against static charges.

#### Materials to avoid

**Materials to avoid** Strong oxidizing agents, Peroxides

#### Hazardous decomposition products

**Hazardous decomposition products** Hazardous decomposition products formed under fire conditions.

### 11. TOXICOLOGICAL INFORMATION

#### Information on toxicological effects

#### Acute toxicity - Product Information

**Other** Not classified for acute

#### Local effects

**Inhalation** Harmful by inhalation

**Skin Contact** Irritating to skin

**Eye Contact** Irritating to eyes

#### Sensitisation

**Skin Contact** May cause allergic skin reaction

#### Chronic toxicity

**Target Organ Effects** Central nervous system (CNS). Reproductive System. Respiratory system. Eyes.  
Liver. Skin.

#### Specific effects

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Styrene	1000 mg/kg ( Rat )		11.8 mg/L ( Rat ) 4 h
phthalic anhydride	800 - 1600 mg/kg ( Rat ) 1530 mg/kg ( Rat )	3160 mg/kg ( Rabbit )	0.21 mg/L ( Rat ) 1 h

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Chemical Name	EU - Endocrine Disruptors Candidate List	EU - Endocrine Disruptors - Evaluated Substances
Styrene	Group I Chemical	High Exposure Concern

### 12. ECOLOGICAL INFORMATION

#### Toxicity

Do not flush into surface water or sanitary sewer system.

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates.	Toxicity to fish	Toxicity to microorganisms
Styrene 100-42-5	EC50 Pseudokirchneriella subcapitata 96h 0.15 - 3.2mg/L EC50 Pseudokirchneriella subcapitata 72h 0.46 - 4.3mg/L EC50 Pseudokirchneriella subcapitata 96h 0.72mg/L EC50 Pseudokirchneriella subcapitata 72h 1.4mg/L	EC50 Daphnia magna 48h 3.3 - 7.4mg/L	LC50 Lepomis macrochirus 96h 19.03-33.53mg/L LC50 Pimephales promelas 96h 3.24-4.99mg/L LC50 Poecilia reticulata 96h 58.75-95.32mg/L LC50 Pimephales promelas 96h 6.75-14.5mg/L	

#### Persistence and degradability

No information available.

#### Bioaccumulative potential

#### Product Information

Partition coefficient: n-octanol/water

Chemical Name	log Pow
Styrene - 100-42-5	2.95
phthalic anhydride - 85-44-9	0.73

#### Mobility

No information available.

#### PBT and vPvB assessment

No information available.

#### Other adverse effects

Other adverse effects

None known.

### 13. DISPOSAL CONSIDERATIONS

#### Waste treatment

Waste from Residues/Unused Products

Dispose of in accordance with the European Directives on waste and hazardous waste.

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**Contaminated packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal.

**Other information** According to the European Waste Catalogue, Waste Codes are not product specific, but application specific.  
Waste codes should be assigned by the user based on the application for which the product was used.

### 14. TRANSPORT INFORMATION

#### ADR/RID

<b>UN-No</b>	UN1866
<b>Hazard class</b>	3
<b>Proper shipping name</b>	Resin solution
<b>Packing group</b>	III
<b>Classification Code</b>	F1
<b>Tunnel restriction code</b>	(D/E)
<b>ADR Hazard Id (Kemmler Number)</b>	30
<b>Description</b>	UN 1866, RESIN SOLUTION, 3, PG III, (D/E)
<b>Limited quantity</b>	LQ7

#### IMDG/IMO

<b>UN-No</b>	UN1866
<b>Hazard class</b>	3
<b>Proper shipping name</b>	Resin solution
<b>Packing group</b>	III
<b>Marine pollutant</b>	NP
<b>EmS</b>	F-E, S-E
<b>Description</b>	UN1866, RESIN SOLUTION, 3, PG III, (31°C c.c.)
<b>Limited quantity</b>	5 L

#### ICAO/IATA

<b>UN-No</b>	UN1866
<b>Hazard class</b>	3
<b>Packing group</b>	III
<b>ERG Code</b>	3L
<b>Description</b>	UN1866, RESIN SOLUTION, 3, PG III
<b>Limited quantity</b>	10 L

#### ADN

<b>UN-No</b>	UN1866
<b>Hazard class</b>	3
<b>Proper shipping name</b>	Resin solution
<b>Packing group</b>	III
<b>Classification Code</b>	F1
<b>Special Provisions</b>	640E
<b>Description</b>	UN1866, RESIN SOLUTION, 3, PG III
<b>Hazard Labels</b>	3
<b>Limited quantity</b>	LQ7
<b>TextCode VENTN could not be translated to BE</b>	VE01

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### 15. REGULATORY INFORMATION

The mixture is classified as dangerous in accordance with Directive 1999/45/EC.

#### Labelling

contains Styrene(non-stabilised)

#### Symbol(s)

Xn - Harmful



#### R-phrases

R10 - Flammable

R20 - Harmful by inhalation

R36/38 - Irritating to eyes and skin.

#### S-phrases

S16 - Keep away from sources of ignition - No smoking.

S23 - Do not breathe gas/fumes/vapour/spray

S33 - Take precautionary measures against static discharges.

S38 - In case of insufficient ventilation, wear suitable respiratory equipment.

S42 - During fumigation/spraying wear suitable respiratory equipment.

S51 - Use only in well ventilated areas.

S 7/9 - Keep container tightly closed and in a well-ventilated place.

#### Special labelling of certain preparations

contains phthalic anhydride. May produce an allergic reaction.

#### Further Information

##### European Union

Chemical Name	96/82/EC (SEVESO) - §9	96/82/EC (SEVESO) - §6, §7
Styrene - 100-42-5	50000	5000 tonnes 50000 tonnes

#### National regulatory information

##### The United Kingdom

Avoid exceeding of the given occupational exposure limits (see section 8).

##### Ireland

Avoid exceeding of the given occupational exposure limits (see section 8).

### 16. OTHER INFORMATION

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Full text of R-phrases referred to under sections 2 and 3

R10 - Flammable

R20 - Harmful by inhalation

R22 - Harmful if swallowed

R36/38 - Irritating to eyes and skin.

R42/43 - May cause sensitisation by inhalation and skin contact.

R37/38 - Irritating to respiratory system and skin.

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Revision Note not applicable.

**This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006**

### Disclaimer

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.

End of Safety Data Sheet