

Distinction GRP Hardener

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade Name : Distinction GRP Hardener

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

Use of the Substance/Mixture : Paints, varnishes and enamels
Chemical nature : Polyisocyanic compound - professional use

1.3 Details of the supplier of the safety data sheet

Company : Carlac Ltd
Telephone : 0113 2244004
Fax : 0113 2244005
Email : Leeds@Carlac.co.uk
Website: WWW.Carlac.co.uk

Carlac Ltd. Unit 16-17
Ashfield Way, Whitehall Road
Whitehall Industrial Estate
Leeds LS12 5JB
West Yorkshire

1.4 Emergency telephone number

Tel. +39-031-586301 Fax +39-031-586299
This telephone number is available during office hours only. (8.00-18.00)

2. Hazards identification

2.1 Classification of the substance or mixture

Classification (67/548/EEC, 1999/45/EC)

Flammable	R10: Flammable.
Harmful	R20: Harmful by inhalation.
Sensitising	R42/43: May cause sensitisation by inhalation and skin contact.
Dangerous for the environment	R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
	R66: Repeated exposure may cause skin dryness or cracking.

2.2 Label elements

Labelling according to EC Directives (1999/45/EC)

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Hazard pictograms :



Harmful

R-phrases(s) :

R10
R20
R42/43

Flammable.
Harmful by inhalation.
May cause sensitisation by inhalation and skin contact.

R52/53

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

R66

Repeated exposure may cause skin dryness or cracking.

S-phrases(s) :

S23
S36/37

Do not breathe vapour.
Wear suitable protective clothing and gloves.

S45

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S60

This material and its container must be disposed of as hazardous waste.

Hazardous components which must be listed on the label:

- 28182-81-2 Hexamethylene diisocyanate, oligomers
- 1330-20-7 xylene
- 822-06-0 hexamethylene-di-isocyanate

Special labelling of certain mixtures :

Contains isocyanates. See information supplied by the manufacturer.
Restricted to professional users.

2.3 Other hazards

None known.

No hazards resulting from the material as supplied.

The information required is contained in this Material Safety Data Sheet.

3. Composition/information on ingredients

3.2 Mixtures

Chemical nature : Liquid solution

Hazardous components

Chemical Name	CAS-No. EC-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration [%]
xylene	1330-20-7 215-535-7 01- 2119488216- 32	R10 Xn; R20/21 Xi; R38 Nota C	Flam. Liq. 3; H226 Acute Tox. 4; H332 Acute Tox. 4; H312 Skin Irrit. 2; H315	>= 7 - < 10



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n-butyl acetate	123-86-4 204-658-1 01- 2119485493- 29	R10 R66 R67	Flam. Liq. 3; H226 STOT SE 3; H336 EUH066	>= 20 - < 30
2-methoxy-1-methylethyl acetate	108-65-6 203-603-9 01- 2119475791- 29	R10	Flam. Liq. 3; H226	>= 7 - < 10
hexamethylene-diisocyanate	822-06-0 212-485-8 01- 2119457571- 37	T; R23 Xi; R36/37/38 R42/43	Acute Tox. 3; H331 Eye Irrit. 2; H319 STOT SE 3; H335 Skin Irrit. 2; H315 Resp. Sens. 1; H334 Skin Sens. 1; H317	>= 0,1 - < 0,25
Hexamethylene diisocyanate, oligomers	28182-81-2 500-060-2 01- 2119485796- 17	Xn; R20 Xi; R37 R42/43	Acute Tox. 4; H332 Skin Sens. 1; H317 STOT SE 3; H335 Resp. Sens. 1; H334	>= 50 - <= 100

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

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. First aid measures

4.1 Description of first aid measures

- General advice : When symptoms persist or in all cases of doubt seek medical advice.
Never give anything by mouth to an unconscious person.
- If inhaled : Remove to fresh air.
Keep patient warm and at rest.
If breathing is irregular or stopped, administer artificial respiration.
If unconscious place in recovery position and seek medical advice.
- In case of skin contact : Take off all contaminated clothing immediately.
Wash skin thoroughly with soap and water or use recognized skin cleanser.
Do NOT use solvents or thinners.
Put shower on working place
- In case of eye contact : Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.
Seek medical advice.
Put eye-washer on working place
Remove contact lenses.
- If swallowed : If accidentally swallowed obtain immediate medical attention.
Do NOT induce vomiting.
Keep at rest.

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4.2 Most important symptoms and effects, both acute and delayed

- Symptoms : No information available.
- Risks : No information available.

4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.
Seek medical advice.

5. Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Keep containers and surroundings cool with water spray.
- Unsuitable extinguishing media : Do NOT use water jet.

5.2 Special hazards arising from the substance or mixture

- Specific hazards during firefighting : As the product contains combustible organic components, fire will produce dense black smoke containing hazardous products of combustion (see section 10).
Exposure to decomposition products may be a hazard to health.
Cool closed containers exposed to fire with water spray.
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

5.3 Advice for firefighters

- Special protective equipment for firefighters : Wear self contained breathing apparatus for fire fighting if necessary.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- Personal precautions : Solvent vapours are heavier than air and may spread along floors.
Ensure adequate ventilation.
Use personal protective equipment.
Evacuate personnel to safe areas.
Keep people away from and upwind of spill/leak.
Ventilate the area.

6.2 Environmental precautions

- Environmental precautions : Try to prevent the material from entering drains or water

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courses.
If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : Clean with detergents. Avoid solvents.
The contaminated area should be cleaned up immediately with a suitable decontaminant. One possible (flammable) decontaminant comprises water (45 parts by volume)/ethanol or isopropanol (50 parts)/ concentrated (d:0,880) ammonia solution (5 parts). A non flammable alternative is sodium carbonate (5 parts)/water (95 parts)
Pick up and transfer to properly labelled containers.
Clean contaminated surface thoroughly.
Dam up.
Soak up with inert absorbent material and dispose of as hazardous waste.

6.4 Reference to other sections

Refer to section 15 for specific national regulation.

7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Avoid exceeding of the given occupational exposure limits (see section 8).
Use only in area provided with appropriate exhaust ventilation.
Avoid contact with skin, eyes and clothing.
Smoking, eating and drinking should be prohibited in the application area.
Avoid inhalation of vapour or mist.
For personal protection see section 8.
Persons with a history of skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.
Thoroughly mix before using
After using, store in a well-sealed container

Advice on protection against fire and explosion : Prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentration higher than the occupational exposure limits.
When transferring from one container to another apply earthing measures and use conductive hose material.
No sparking tools should be used.
The product should only be used in areas from which all naked lights and other sources of ignition have been excluded.
No smoking.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Observe label precautions.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Store between 5° an 35°C in a dry, well ventilated place away

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from source of heat, ignition and direct sunlight.
Electrical installations / working materials must comply with the technological safety standards.
Store in accordance with the particular national regulations.

Advice on common storage : Keep away from oxidising agents, strongly acid or alkaline materials, as well as of amines, alcohols and water.

7.3 Specific end use(s)

: This information is not available.

8. Exposure controls/personal protection

8.1 Control parameters

Components	CAS-No.	Value	Control parameters	Update	Basis
xylene	1330-20-7	TWA	50 ppm 221 mg/m ³	2000-06-16	2000/39/EC
Further information	: skin: Identifies the possibility of significant uptake through the skinIndicative				
		STEL	100 ppm 442 mg/m ³	2000-06-16	2000/39/EC
Further information	: skin: Identifies the possibility of significant uptake through the skinIndicative				
n-butyl acetate (Vapour and gas)	123-86-4	TWA	150 ppm 713 mg/m ³		
		STEL	200 ppm 950 mg/m ³		
2-methoxy-1-methylethyl acetate	108-65-6	TWA	50 ppm 275 mg/m ³	2000-06-16	2000/39/EC
Further information	: skin: Identifies the possibility of significant uptake through the skinIndicative				
		STEL	100 ppm 550 mg/m ³	2000-06-16	2000/39/EC
Further information	: skin: Identifies the possibility of significant uptake through the skinIndicative				

DNEL

n-butyl acetate

: End Use: Professional use
Exposure routes: Skin contact
Potential health effects: Local effects
Exposure time: 8 h
Value: 7 ppm

End Use: Professional use
Exposure routes: Inhalation
Potential health effects: Local effects
Value: 48 mg/m³



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PNEC
n-butyl acetate : Water
Value: 0,18 mg/l

Soil
Value: 0,093 mg/kg

8.2 Exposure controls

Personal protective equipment

Respiratory protection : Apply technical measures to comply with the occupational exposure limits.
This should be achieved by a good general extraction and -if practically feasible- by the use of a local exhaust ventilation.
If the occupational exposure limits cannot be met, in exceptional cases suitable respiratory equipment should be worn only for a short period of time.
In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit.
Wear a positive-pressure supplied-air respirator.

Hand protection : For prolonged or repeated contact use protective gloves.
Chemical resistant gloves made of butyl rubber or nitrile rubber category III according to EN 374.
Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves.
Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.
If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves.
Barrier creams may help to protect the exposed areas of skin, they should however not be applied once exposure has occurred.
Skin should be washed after contact.
Wash your hands and put on barrier creams

Eye protection : Chemical resistant goggles must be worn.

Skin and body protection : Skin should be washed after contact.
Working clothes must not consist of textiles, which show a dangerous melting behaviour in case of fire.
Personnel should wear protective clothing.
Workers should wear antistatic footwear.

Environmental exposure controls

General advice : Try to prevent the material from entering drains or water courses.
If the product contaminates rivers and lakes or drains inform respective authorities.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : liquid



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Odour	: solvent-like
Flash point	: > 23 - 55 °C
Ignition temperature	: not determined
Lower explosion limit	: no data available
Upper explosion limit	: no data available
Auto-ignition temperature	: not applicable
pH	: not determined
Freezing point	: not applicable
Boiling point	: not determined
Vapour pressure	: 1,000 hPa at 50 °C
Density	: 1,0115 g/cm ³
Water solubility	: not determined
Partition coefficient: n-octanol/water	: no data available
Solubility in other solvents	: not determined
Flow time	: > 23 s 3 mm Method: ASTM D 1200 '82
Relative vapour density	: not applicable
Evaporation rate	: not determined

9.2 Other information

Solids by weight	: 56,25 %
Volatile organic compounds (VOC) content	: 43,75 %

10. Stability and reactivity

10.1 Reactivity

None reasonably foreseeable.

10.2 Chemical stability

The product is chemically stable.

10.3 Possibility of hazardous reactions

Hazardous reactions	: Keep away from oxidising agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions. Avoid moisture. Amines and alcohols cause exothermic reactions. Mixture reacts slowly with water resulting in evolution of CO ₂ .
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Evolution of CO₂ in closed containers causes overpressure and produces a risk of bursting.

10.4 Conditions to avoid

- Conditions to avoid : Our products were manufactured in compliance with safety standards to avoid decomposition and degrading under the defined conditions.
Taking the product type into account, it is advisable to leave the product in its original packaging thus avoiding transferring it.

10.5 Incompatible materials

- Materials to avoid : Keep away from oxidising agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.

10.6 Hazardous decomposition products

- Hazardous decomposition products : Carbon dioxide (CO₂), carbon monoxide (CO), oxides of nitrogen (NO_x), dense black smoke.
- Thermal decomposition : not applicable

11. Toxicological information

11.1 Information on toxicological effects

Product

- Acute inhalation toxicity : Exposure to component solvent vapours concentration in excess of the stated occupational exposure limit may result in adverse health effects., Such as: mucous membrane irritation, respiratory system irritation, adverse effects on kidney, liver and central nervous system. Symptoms and signs: headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases loss of consciousness., Inhalation of airborne droplets may cause irritation of the respiratory tract.
- Acute toxicity (other routes of administration) : Isocyanates may cause acute irritation and/or sensitisation of the respiratory system leading to tightness of the chest, wheeziness and an asthmatic condition.
- Skin corrosion/irritation : Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin resulting in desiccation of the skin., The product may be absorbed through the skin.
- Further information : The concentration of each substance should be borne in mind in assessing the toxicological effects deriving from the preparation.

Components:

xylene :

- Acute dermal toxicity : Acute toxicity estimate: 1.100 mg/kg, Converted acute toxicity point estimate

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12. Ecological information

12.1 Toxicity

Toxicity to fish :
Remarks:
No data is available on the product itself.

12.2 Persistence and degradability

Biodegradability : no data available

12.3 Bioaccumulative potential

Bioaccumulation : no data available

12.4 Mobility in soil

Mobility : no data available

12.5 Results of PBT and vPvB assessment

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT)., This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

12.6 Other adverse effects

Additional ecological information : The product contains dangerous substances for the environment (see chapter no 3).
The concentration of each substance should be borne in mind in assessing the toxicological effects deriving from the preparation.

13. Disposal considerations

13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water courses or the soil.
Disposal together with normal waste is not allowed. Special disposal required according to local regulations.
Must be incinerated.

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

14. TRANSPORT INFORMATION

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ADR : UN number **1263**
Class 3
Packing instruction F1
(LQ)
Packaging group III
Hazard identification 30
No
Labels 3
Description of the goods PAINT RELATED MATERIAL

IMDG : UN number **1263**
Class 3
EmS F - E, S - E
Packaging group III
Hazard identification
No
Labels 3
Description of the goods PAINT RELATED MATERIAL

IATA UN number **1263**
Class 3
Packaging group III
Hazard identification
No
Labels 3
Description of the goods Paint related material

15. Regulatory information

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

MAL-Code-Number (DK) : 5-5 (1993)
1.138.908-m3 air/10 g

Risk classification according to VbF : Exempt

Water contaminating class (Germany) : water endangering

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006. Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
The product is classified and labelled in accordance with Directive 1999/45/EC.

15.2 Chemical Safety Assessment

No data is available on the product itself.

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16. Other information

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

R10	Flammable.
R20	Harmful by inhalation.
R20/21	Harmful by inhalation and in contact with skin.
R23	Toxic by inhalation.
R36/37/38	Irritating to eyes, respiratory system and skin.
R37	Irritating to respiratory system.
R38	Irritating to skin.
R42/43	May cause sensitisation by inhalation and skin contact.
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R66	Repeated exposure may cause skin dryness or cracking.
R67	Vapours may cause drowsiness and dizziness.

Full text of H-Statements referred to under sections 2 and 3.

EUH066	Repeated exposure may cause skin dryness or cracking.
H226	Flammable liquid and vapour.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
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.
H336	May cause drowsiness or dizziness.

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.