



**Safety Data Sheet**  
according to Regulation (EC)  
No. 453/2010



## 1. Identification of the Substance/Mixture and the Company/Undertaking

- 1.1 Product Identifier** 1M133000 **Revision Date:** 27/04/2015  
**Product Name:** CARBOTHANE 133 HB - B **Supersedes Date:** New SDS
- 1.2 Relevant identified uses of the substance or mixture and uses advised against** Hardener for 2 components coatings - Industrial use.
- Product to be mixed with:** CARBOTHANE 133 HB - A  
**Mixing ratio by volume Part A/ Part B:** 17.1 /2.9
- 1.3 Details of the supplier of the safety data sheet**
- Importer:** StonCor Europe  
9 Rue du Travail, 1400 Nivelles, Belgium
- Manufacturer:** Carboline Italia, S.p.a.  
Via Milano  
20093 Cologno Monzese (MI)  
Italy
- Regulatory /Technical Information:**  
+32 67493710 Nivelles, Belgium  
+39 02253751 Cologno Monzese, Italy
- Datasheet Produced by:** Astori, Federica - ehs@ stoncor.com
- 1.4 Emergency telephone number:** CHEMTREC +1 703 5273887 (Outside US)  
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## 2 Hazard Identification

### 2.1 Classification of the substance or mixture

Classification according to Classification, Labeling & Packaging Regulation (EC) 1272/2008

#### HAZARD STATEMENTS

Other EU extensions	EUH204
Flammable Liquid, category 3	H226
Skin Irritation, category 2	H315
Skin Sensitizer, category 1	H317
Acute Toxicity, Inhalation, category 4	H332
STOT, single exposure, category 3, RTI	H335

## 2.2 Label elements

### Symbol(s) of Product



### Signal Word

Warning

### Named Chemicals on Label

ethylbenzene, hexamethylene diisocyanate, xylene, hexamethylene diisocyanate, oligomers

### HAZARD STATEMENTS

Other EU extensions	EUH204	Contains isocyanates. May produce an allergic reaction.
Flammable Liquid, category 3	H226	Flammable liquid and vapour.
Skin Irritation, category 2	H315	Causes skin irritation.
Skin Sensitizer, category 1	H317	May cause an allergic skin reaction.
Acute Toxicity, Inhalation, category 4	H332	Harmful if inhaled.
STOT, single exposure, category 3, RT1	H335	May cause respiratory irritation.

### PRECAUTION PHRASES

P210	Keep away from heat/sparks/open flames/hot surfaces. –No smoking.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P304+340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P333+313	If skin irritation or rash occurs: Get medical advice/attention.

### 2.3 Other hazards

Not applicable

### Results of PBT and vPvB assessment

No informations

## 3. Composition/Information On Ingredients

### 3.2 Mixtures

#### Hazardous Ingredients

<u>CAS-No.</u>	<u>EINEC No.</u>	<u>Name According to EEC</u>	<u>%</u>
28182-81-2	500-060-2	hexamethylene diisocyanate, oligomers	75-100
108-65-6	203-603-9	2-methoxy-1-methylethyl-acetate	10-25
1330-20-7	215-535-7	xylene	10-25
100-41-4	202-849-4	ethylbenzene	2.5-10
822-06-0	212-485-8	hexamethylene diisocyanate	0.1-1.0

<u>CAS-No.</u>	<u>REACH Reg No.</u>	<u>CLP Symbols</u>	<u>CLP Hazard Statements</u>	<u>M-Factors</u>
28182-81-2	01-2119485796-17	GHS07	H317-332-335	
108-65-6	01-2119475791-29	GHS02	H226	
1330-20-7	01-2119488216-32	GHS02-GHS07	H226-312-315-332	
100-41-4	01-2119489370-35	GHS02-GHS07-GHS08	H225-304-315-319-332-373	
822-06-0	01-2119457571-37	GHS06-GHS08	H302-315-317-319-330-334-335	

### Additional Information:

The text for CLP Hazard Statements shown above (if any) is given in Section 16.

## 4. First-aid Measures

### 4.1 Description of First Aid Measures

**GENERAL NOTES:** When symptoms persist or in all cases of doubt seek medical advice.

**AFTER INHALATION:** Move to fresh air. Consult a physician after significant exposure.

**AFTER SKIN CONTACT:** Use a mild soap if available. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

**AFTER EYE CONTACT:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses.

**AFTER INGESTION:** Gently wipe or rinse the inside of the mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person.

### Self protection of the first aider:

No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

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

Irritating to respiratory system. May cause sensitization by skin contact

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

No information available on clinical testing and medical monitoring. Specific toxicological information on substances, if available, can be found in section 11.

## 5. Fire-fighting Measures

### 5.1 Extinguishing Media:

Carbon Dioxide, Dry Chemical, Foam

**FOR SAFETY REASONS NOT TO BE USED:** Alcohol, Alcohol based solutions, any other media not listed above. Do not use a solid water stream as it may scatter and spread fire.

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

Heating or fire can release toxic gas.

### 5.3 Advice for firefighters

Flash back possible over considerable distance. In the event of fire, wear self-contained breathing apparatus. ABC powder. Do not use a solid water stream as it may scatter and spread fire. Hazardous decomposition products formed under fire conditions. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Water reactive

## 6. Accidental Release Measures

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

Ensure adequate ventilation. Use personal protective equipment. Remove all sources of ignition.

### 6.2 Environmental precautions

Do not allow material to contaminate ground water system. Prevent product from entering drains. Keep the container open.

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

Prevent further leakage or spillage if safe to do so. Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

### 6.4 Reference to other sections

**FURTHER INSTRUCTIONS:** Please refer to EU disposal requirements or country specific disposal requirements for this material. See Section 13 for further information.

## 7. Handling and Storage

### 7.1 Precautions for safe handling

Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Vapours may form explosive mixtures with air. Prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentration higher than the occupational exposure limits. Electrical equipment should be protected to the appropriate standard. Preparation may charge electrostatically: always use earthing leads when transferring from one container to another. Use only in area provided with appropriate exhaust ventilation. To avoid ignition of vapours by static electricity discharge, all metal parts of the equipment must be grounded. Wear personal protective equipment. Do not breathe vapours

or spray mist. Use only explosion-proof equipment. Keep away from sources of ignition - No smoking. 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 preparation is being used.

Wash hands before breaks and at the end of workday. When using, do not eat, drink or smoke.

## 7.2 Conditions for safe storage, including any incompatibilities

**CONDITIONS TO AVOID:** Direct sources of heat. Keep from any possible contact with water.

**STORAGE CONDITIONS:** Store in original container. Keep locked up or in an area accessible only to qualified or authorised persons. Store in a dry, well ventilated place away from sources of heat, ignition and direct sunlight.

## 7.3 Specific end use(s)

No specific advice for end use available.

# 8. Exposure Controls/Personal Protection

## 8.1 Control parameters

### Ingredients with Occupational Exposure Limits

#### (UK WELS)

<u>Name</u>	<u>%</u>	<u>LTEL ppm</u>	<u>STEL ppm</u>	<u>STEL mg/m<sup>3</sup></u>	<u>LTEL mg/m<sup>3</sup></u>	<u>OEL Note</u>
hexamethylene diisocyanate, oligomers	75-100					
2-methoxy-1-methylethyl-acetate	10-25	50	100	548	274	Sk
xylene	10-25	50	100	441	220	Sk
ethylbenzene	2.5-10	100	125	552	441	Sk
hexamethylene diisocyanate	0.1-1.0					

**FURTHER ADVICE:** Refer to the regulatory exposure limits for the workforce enforced in each country. Some components may not have been classified at the EU level under the dangerous substances and preparations regulation.

## 8.2 Exposure controls

### Personal Protection

**RESPIRATORY PROTECTION:** When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Respirator with a vapour filter (EN 141). Respirator with a vapor filter.

**EYE PROTECTION:** Ensure that eyewash stations and safety showers are close to the workstation location. Safety goggles. Tightly fitting safety goggles.

**HAND PROTECTION:** Rubber or plastic gloves. Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact). Protective gloves complying with EN 374. Long sleeved clothing. Remove and wash contaminated clothing before re-use.

**OTHER PROTECTIVE EQUIPMENT:** No Information

**ENGINEERING CONTROLS:** Avoid contact with skin, eyes and clothing. Ensure adequate ventilation, especially in confined areas.

**Chemical Name:**

hexamethylene diisocyanate, oligomers

**EC No.:**

500-060-2

**CAS-No.:**

28182-81-2

**DNELs - Derived no effect level**

Route of Exposure	Workers				Consumers			
	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic
Oral	Not required							
Inhalation								
Dermal								

**PNEC's - Predicted no effect concentration**

Environmental protection target	PNEC
Fresh water	0.127 mg/l
Fresh water sediments	266700 mg/kg (dry)
Marine water	0.0127 mg/l
Marine sediments	26670 mg/kg (dry)
Food chain	
Microorganisms in sewage treatment soil (agricultural)	53182 mg/kg (dry)
Air	

**Chemical Name:**

2-methoxy-1-methylethyl-acetate

**EC No.:**

203-603-9

**CAS-No.:**

108-65-6

**DNELs - Derived no effect level**

Route of Exposure	Workers				Consumers			
	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic
Oral	Not required							
Inhalation				275 mg/m <sup>3</sup>				1.67 mg/kg
Dermal				153.5 mg/kg				54.8 mg/kg

**PNEC's - Predicted no effect concentration**

Environmental protection target	PNEC
Fresh water	0.635 mg/l
Fresh water sediments	3.29 mg/kg
Marine water	0.0635 mg/l
Marine sediments	0.329 mg/kg
Food chain	
Microorganisms in sewage treatment soil (agricultural)	0.29 mg/kg
Air	

**Chemical Name:**

xylene

**EC No.:**

215-535-7

**CAS-No.:**

1330-20-7

**DNELs - Derived no effect level**

Route of Exposure	Workers				Consumers			
	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic
Oral	Not required							1.6 mg/kg
Inhalation	289 mg/m3			77 mg/m3		174 mg/m3		14.8 mg/m3
Dermal				289 mg/kg				108 mg/kg

**PNEC's - Predicted no effect concentration**

Environmental protection target	PNEC
Fresh water	0.327 mg/l
Fresh water sediments	12.46 mg/kg
Marine water	0.327 mg/l
Marine sediments	12.46 mg/kg
Food chain	
Microorganisms in sewage treatment soil (agricultural)	6.58 mg/l
Air	2.31 mg/kg

**9. Physical and Chemical Properties****9.1 Information on basic physical and chemical properties**

<b>Appearance:</b>	clear liquid
<b>Physical State</b>	LIQUID
<b>Odor</b>	SOLVENT
<b>Odor threshold</b>	Not determined
<b>pH</b>	N/A
<b>Melting point /freezing point (°C)</b>	Not determined
<b>Boiling point/range (°C)</b>	>120 - N.D.
<b>Flash Point, (°C)</b>	38
<b>Evaporation rate</b>	Not determined
<b>Flammability (solid, gas)</b>	Not determined
<b>Upper/lower flammability or explosive limits</b>	Not determined
<b>Vapour Pressure</b>	N/D
<b>Vapour density</b>	
<b>Relative density</b>	Not determined
<b>Solubility in /Miscibility with water</b>	
<b>Partition coefficient: n-octanol/water</b>	Not determined
<b>Auto-ignition temperature (°C)</b>	Not determined
<b>Decomposition temperature (°C)</b>	Not determined
<b>Viscosity</b>	
<b>Explosive properties</b>	Not determined
<b>Oxidising properties</b>	Not determined

**9.2 Other information**

VOC Content g/l:

Grams of VOC per liter of coating product as applied per ISO 11890-1 and/or ISO 11890-2

Specific Gravity (g/cm<sup>3</sup>) 1.07

## 10. Stability and Reactivity

### 10.1 Reactivity

No reactivity hazards known under normal storage and use conditions.

### 10.2 Chemical stability

Stable under recommended storage conditions. Container can be pressurized by carbon dioxide due to reaction with humid air and/or water. Risk of ignition.

### 10.3 Possibility of hazardous reactions

Hazardous polymerisation does not occur.

### 10.4 Conditions to avoid

Direct sources of heat. Keep from any possible contact with water.

### 10.5 Incompatible materials

Reacts violently in contact with acids, amines, driers, polymerisation accelerators and easily oxidized materials. Strong oxidizing agents. Contact with water or moist air liberates irritating gas.

### 10.6 Hazardous decomposition products

Carbon dioxide (CO<sub>2</sub>), carbon monoxide (CO), oxides of nitrogen (NO<sub>x</sub>), dense black smoke.

## 11. Toxicological Information

### 11.1 Information on toxicological effects

#### Acute Toxicity:

Oral LD50:

Inhalation LC50:

**Irritation:** No information available.

**Corrosivity:** No information available.

**Sensitization:** No information available.

**Repeated dose toxicity:** No information available.

**Carcinogenicity:** No information available.

**Mutagenicity:** No information available.

**Toxicity for reproduction:** No information available.

**STOT-single exposure:** No information available.

**STOT-repeated exposure:** No information available.

**Aspiration hazard:** No information available.

If no information is available above under Acute Toxicity then the acute effects of this product have not been tested. Data on individual components are tabulated below.

<u>CAS-No.</u>	<u>Name According to EEC</u>	<u>Oral LD50</u>	<u>Dermal LD50</u>	<u>Vapor LC50</u>
28182-81-2	hexamethylene diisocyanate, oligomers	5000 mg/kg, oral, rat	>2000 mg/kg (dermal, rat, M-F)	18500 mg/m <sup>3</sup> /1H inhalation, rat
108-65-6	2-methoxy-1-methylethyl-acetate	8532 mg/kg, oral (rat)	>5000 mg/kg	1105 mg/m <sup>3</sup> /4H
1330-20-7	xylene	>2000 mg/kg, rat, oral	3200 mg/kg, rabbit dermal	20 mg/L (inh/vapour/rat)

100-41-4 ethylbenzene 3500 mg/kg rat, oral

822-06-0 hexamethylene diisocyanate 710 mg/kg, oral rat

0.124 mg/l (inhalation, 4h, rat)

**Additional Information:**

May cause allergic respiratory reaction.

**12 Ecological Information****12.1 Toxicity:**

EC50 48hr (Daphnia): No information

IC50 72hr (Algae): No information

LC50 96hr (fish): No information

**12.2 Persistence and degradability:** No information**12.3 Bioaccumulative potential:** No information**12.4 Mobility in soil:** No information**12.5 Results of PBT and vPvB assessment:** No informations**12.6 Other adverse effects:** No information

<u>CAS-No.</u>	<u>Name According to EEC</u>	<u>EC50 48hr</u>	<u>IC50 72hr</u>	<u>LC50 96hr</u>
28182-81-2	hexamethylene diisocyanate, oligomers	No information	> 1000 mg/l (ErC50-static 72h scenedesmus subspicatus)	>100 mg/l (Danio rerio, LD50, 96h)
108-65-6	2-methoxy-1-methylethyl-acetate	408 mg/L	No information	161 mg/L
1330-20-7	xylene	165 mg/L (Daphnia magna 24h)	3 - 5 mg/L (Selenastrum sp.)	2 - 11 mg/L (Roccus saxatilis), 8.2 mg/L (Salmo gairdneri), 13.5 mg/L (Lepomis macrochirus), 21.0 mg/L (Pimephales promelas)
100-41-4	ethylbenzene	No information	No information	No information
822-06-0	hexamethylene diisocyanate	No information	77,4 mg/l (ErC50, static, desmodesmus subspicatus)	8.8 mg/L (Brachydanio rerio)

**13. Disposal Considerations**

**13.1 WASTE TREATMENT METHODS:** Do not burn, or use a cutting torch on, the empty drum. If recycling is not practicable, dispose of in compliance with local regulations. Empty containers should be taken to an approved waste handling site for recycling or disposal.

European Waste Code: No Information

Packaging Waste Code: 150110



## 14. Transport Information

14.1	UN number	UN1263
14.2	UN proper shipping name	. PAINT
	Technical name	
14.3	Transport hazard class(es)	3
	Subsidiary shipping hazard	
14.4	Packing group	III
14.5	Environmental hazards	Marine Pollutant NO
14.6	Special precautions for user	Not applicable
	EmS-No.:	F-E, S-E
14.7	Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code	Not applicable

## 15. Regulatory Information

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

#### National Regulations:

Denmark Product Registration Number:

Danish MAL Code:

Sweden Product Registration Number:

Norway Product Registration Number:

WGK Class: 3

#### Chemical Safety Assessment

15.2 No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

## 16. Other Information

### Text for CLP Hazard Statements shown in Section 3 describing each ingredient

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure.

#### Reasons for revision

This Safety Data Sheet (SDS) has been revised to meet the new EU CLP requirements. There have been both formatting and content changes based on the CLP classification (if applicable), please review each section of the SDS for specific changes.

#### List of References:

This Safety Data Sheet was compiled with data and information from the following sources:

The Ariel Regulatory Database provided by the 3E Corporation in Copenhagen, Denmark  
ESIS (The European Chemical Substances Information System), provided by the European Commission  
Joint Research Centre in Ispra, Italy  
Annex VI of the EU Council Directive 67/548/EEC  
Council Directive 67/548/EEC - Annex I or EU Council Directive 1999/45/EC  
European Union (EC) Regulation No. 1272/2008 on the classification, labelling and packaging of  
substances and mixtures (CLP Regulation)  
EU Council Decision 2000/532/EC and its Annex entitled "List of Wastes"

## Acronym &amp; Abbreviation Key:

CLP	Classification, Labeling & Packaging Regulation
EC	European Commission
EU	European Union
US	United States
CAS	Chemical Abstract Service
EINECS	European Inventory of Existing Chemical Substances
REACH	Registration, Evaluation, Authorization of Chemicals Regulation
GHS	Globally Harmonized System of Classification and Labeling of Chemicals
LTEL	Long term exposure limit
STEL	Short term exposure limit
OEL	Occupational exposure limit
ppm	Parts per million
mg/m <sup>3</sup>	Milligrams per cubic meter
TLV	Threshold Limit Value
ACGIH	American Conference of Governmental Industrial Hygienists
OSHA	Occupational Safety & Health Administration
PEL	Permissible Exposure Limits
VOC	Volatile organic compounds
g/l	Grams per liter
mg/kg	Milligrams per kilogram
N/A	Not applicable
LD50	Lethal dose at 50%
LC50	Lethal concentration at 50%
EC50	Half maximal effective concentration
IC50	Half maximal inhibitory concentration
PBT	Persistent bioaccumulative toxic chemical
vPvB	Very persistent and very bioaccumulative
EEC	European Economic Community
ADR	International Transport of Dangerous Goods by Road
RID	International Transport of Dangerous Goods by Rail
UN	United Nations
IMDG	International Maritime Dangerous Goods Code
IATA	International Air Transport Association
MARPOL	International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978
IBC	International Bulk Container

For further information, please contact: Technical Services Department

The information on this sheet corresponds to our present knowledge. It is not a specification and it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage, and use of the product. It is not applicable to unusual or non-standard uses of the product or where instructions and recommendations are not followed.