



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



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

1.1 **Product Identifier** 44415 **Revision Date:** 02/06/2015  
**Product Name:** STONCHEM 444 ISO **Supersedes Date:** 29/05/2015

1.2 **Relevant identified uses of the substance or mixture and uses advised against** No Information

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

**Importer:** StonCor Europe  
9 Rue du Travail, 1400 Nivelles, Belgium

**Manufacturer:** Stonhard, Division of StonCor Group, Inc.  
1000 East Park Avenue  
Maple Shade, NJ 08052

+1 856 7797500 (US)

Regulatory / Technical Information:  
+32 67493710 Nivelles, Belgium  
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**Datasheet Produced by:** Darnell, Benjamin - ehs@ stoncor.com

1.4 **Emergency telephone number:** CHEMTREC +1 703 5273887 (Outside US)

## 2 Hazard Identification

### 2.1 Classification of the substance or mixture

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

#### HAZARD STATEMENTS

Acute Toxicity, Inhalation, category 3	H331
Acute Toxicity, Oral, category 4	H302
Carcinogenicity, category 2	H351
Eye Irritation, category 2	H319
Respiratory Sensitizer, category 1	H334

STOT, repeated exposure, category 2	H373
STOT, single exposure, category 3, RTI	H335
Skin Irritation, category 2	H315
Skin Sensitizer, category 1	H317

## 2.2 Label elements

### Symbol(s) of Product



### Signal Word

Danger

### Named Chemicals on Label

4,4'-methylenediphenyl diisocyanate, diphenylmethane-2,4'-diisocyanate, 4,4' methylenediphenyl diisocyanate, oligomers

#### HAZARD STATEMENTS

Acute Toxicity, Inhalation, category 3	H331	Toxic if inhaled.
Acute Toxicity, Oral, category 4	H302	Harmful if swallowed.
Carcinogenicity, category 2	H351	Suspected of causing cancer.
Eye Irritation, category 2	H319	Causes serious eye irritation.
Respiratory Sensitizer, category 1	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
STOT, repeated exposure, category 2	H373	May cause damage to organs through prolonged or repeated exposure.
STOT, single exposure, category 3, RTI	H335	May cause respiratory irritation.
Skin Irritation, category 2	H315	Causes skin irritation.
Skin Sensitizer, category 1	H317	May cause an allergic skin reaction.

#### PRECAUTION PHRASES

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P284	Wear respiratory protection.
P285	In case of inadequate ventilation wear respiratory protection.
P302+352	IF ON SKIN: Wash with plenty of soap and water.
P304+340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.
P308+313	IF exposed or concerned: Get medical advice/attention.
P314	Get medical advice/attention if you feel unwell.
P333+313	If skin irritation or rash occurs: Get medical advice/attention.
P341	If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
P342+311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

## 2.3 Other hazards

Not applicable

### Results of PBT and vPvB assessment

The product does not meet the criteria for PBT/vPvB in accordance with Annex XIII.

### 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>
101-68-8	202-966-0	4,4'-methylenediphenyl diisocyanate	50-75
25686-28-6	500-040-3	4,4' methylenediphenyl diisocyanate, oligomers	10-25
5873-54-1	227-534-9	diphenylmethane-2,4'-diisocyanate	10-25

<u>CAS-No.</u>	<u>REACH Reg No.</u>	<u>CLP Symbols</u>	<u>CLP Hazard Statements</u>	<u>M-Factors</u>
101-68-8		GHS07-GHS08	H315-317-319-332-334-335-351-373	
25686-28-6		GHS07-GHS08	H315-317-319-332-334-335-351-373	
5873-54-1		GHS06-GHS08	H315-317-319-334-335-351-373-301-330	

**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:** 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

Harmful by inhalation, in contact with skin and if swallowed. Irritating to eyes and respiratory system. May cause long-term adverse effects in the aquatic environment

#### 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.

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

Heating or fire can release toxic gas.

#### 5.3 Advice for firefighters

Water reactive. In the event of fire, wear self-contained breathing apparatus. ABC powder. 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.

## 6. Accidental Release Measures

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

Ensure adequate ventilation. Use personal protective equipment

### 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

Use only in area provided with appropriate exhaust ventilation. Provide sufficient air exchange and/or exhaust in work rooms. Wear personal protective equipment. Do not breathe vapours or spray mist. 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:** Keep from any possible contact with water. Avoid dust accumulation in enclosed space.

**STORAGE CONDITIONS:** Store in original container. Keep container tightly closed in a dry and well-ventilated place. Keep locked up or in an area accessible only to qualified or authorised persons.

### 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 (IR)

Name	%	LTEL ppm	STEL ppm	STEL mg/m <sup>3</sup>	LTEL mg/m <sup>3</sup>	OEL Note
4,4'-methylenediphenyl diisocyanate	50-75			0.07	0.02	
4,4' methylenediphenyl diisocyanate, oligomers	10-25					
diphenylmethane-2,4'-diisocyanate	10-25					

**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 vapor filter.

**EYE PROTECTION:** Ensure that eyewash stations and safety showers are close to the workstation location. Safety glasses. 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). 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:**

4,4'-methylenediphenyl diisocyanate

**EC No.:**

202-966-0

**CAS-No.:**

101-68-8

**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				20 mg/kg bw/d			
Inhalation	0.1 mg/m <sup>3</sup>	0.1 mg/m <sup>3</sup>	0.05 mg/m <sup>3</sup>	0.05 mg/m <sup>3</sup>	0.05 mg/m <sup>3</sup>	0.05 mg/m <sup>3</sup>	0.025 mg/m <sup>3</sup>	0.025 mg/m <sup>3</sup>
Dermal	28.7 mg/cm <sup>2</sup>	50 mg/kg bw/d			17.2 mg/cm <sup>2</sup>	25 mg/kg bw/d		

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

Environmental protection target	PNEC
Fresh water	>1 mg/l
Fresh water sediments	
Marine water	>0.1 mg/l
Marine sediments	
Food chain	
Microorganisms in sewage treatment	>1 mg/l
soil (agricultural)	>1 mg/kg
Air	

**Chemical Name:**

diphenylmethane-2,4'-diisocyanate

**EC No.:**

227-534-9

**CAS-No.:**

5873-54-1

**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				20 mg/kg bw/d			
Inhalation	0.1 mg/m <sup>3</sup>	0.1 mg/m <sup>3</sup>	0.05 mg/m <sup>3</sup>	0.05 mg/m <sup>3</sup>	0.05 mg/m <sup>3</sup>	0.05 mg/m <sup>3</sup>	0.025 mg/m <sup>3</sup>	0.025 mg/m <sup>3</sup>
Dermal	28.7 mg/cm <sup>2</sup>	50 mg/kg bw/d			17.2 mg/cm <sup>2</sup>	25 mg/kg bw/d		

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

Environmental protection target	PNEC
Fresh water	>1 mg/l
Fresh water sediments	
Marine water	>0.1 mg/l
Marine sediments	
Food chain	
Microorganisms in sewage treatment	>1 mg/l
soil (agricultural)	>1 mg/kg
Air	

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

<b>Appearance:</b>	CLEAR-YELLOW
<b>Physical State</b>	LIQUID
<b>Odor</b>	SLIGHT MUSTY ODOR
<b>Odor threshold</b>	Not determined

pH	NON-AQUEOUS
Melting point /freezing point (°C)	Not determined
Boiling point/range (°C)	N.D. - N.D.
Flash Point, (°C)	110
Evaporation rate	Not determined
Flammability (solid, gas)	Not determined
Upper/lower flammability or explosive limits	Not determined
Vapour Pressure	APPROX. $4 \times 10^{-6}$ @ 20C
Vapour density	APPROX. 8.5
Relative density	Not determined
Solubility in /Miscibility with water	REACTS WITH WATER
Partition coefficient: n-octanol/water	Not determined
Auto-ignition temperature (°C)	Not determined
Decomposition temperature (°C)	Not determined
Viscosity	450 Cps
Explosive properties	Not determined
Oxidising properties	Not determined

## 9.2 Other information

VOC Content g/l:	52
Grams of VOC per liter of coating product as applied (mixture of Part A and Part B) per ASTM D2369 Method E.	
Specific Gravity (g/cm <sup>3</sup> )	1.190

## 10. Stability and Reactivity

### 10.1 Reactivity

No reactivity hazards known under normal storage and use conditions.

### 10.2 Chemical stability

Container can be pressurized by carbon dioxide due to reaction with humid air and/or water. Stable under normal conditions.

### 10.3 Possibility of hazardous reactions

Hazardous polymerisation does not occur.

### 10.4 Conditions to avoid

Keep from any possible contact with water. Avoid dust accumulation in enclosed space.

### 10.5 Incompatible materials

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

### 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:

<b>Irritation:</b>	No information available.
<b>Corrosivity:</b>	No information available.
<b>Sensitization:</b>	No information available.
<b>Repeated dose toxicity:</b>	No information available.
<b>Carcinogenicity:</b>	No information available.
<b>Mutagenicity:</b>	No information available.
<b>Toxicity for reproduction:</b>	No information available.
<b>STOT-single exposure:</b>	No information available.
<b>STOT-repeated exposure:</b>	No information available.
<b>Aspiration hazard:</b>	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>
101-68-8	4,4'-methylenediphenyl diisocyanate	15000 mg/kg oral		43 ppm vapor 4 hrs
5873-54-1	diphenylmethane-2,4'-diisocyanate	100 mg/kg Intraperitoneal, Rabbit		0.49 mg/l (4 h, Aerosol. rat)

#### Additional Information:

Persons allergic to isocyanates, and particularly those suffering from asthma or other respiratory conditions, should not work with isocyanates.

## 12 Ecological Information

### 12.1 Toxicity:

<b>EC50 48hr (Daphnia):</b>	No information
<b>IC50 72hr (Algae):</b>	No information
<b>LC50 96hr (fish):</b>	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:** The product does not meet the criteria for PBT/vPvB in accordance with Annex XIII.

**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>
101-68-8	4,4'-methylenediphenyl diisocyanate	>1000 mg/l	No information	>1000 mg/l
25686-28-6	4,4' methylenediphenyl diisocyanate, oligomers	No information	No information	

5873-54-1 diphenylmethane-2,4'-diisocyanate

No information

No information

### 13. Disposal Considerations

**13.1 WASTE TREATMENT METHODS:** 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: 080501  
Packaging Waste Code: 150110

### 14. Transport Information

14.1 UN number	N/A
14.2 UN proper shipping name	NOT REGULATED
Technical name	N/A
14.3 Transport hazard class(es)	NONE
Subsidiary shipping hazard	
14.4 Packing group	
14.5 Environmental hazards	
14.6 Special precautions for user	Not applicable
EmS-No.:	N/A
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:

**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

H301	Toxic if swallowed.
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.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.

### Reasons for revision

This is a new Safety Data Sheet (SDS).

### 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 & 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/m3	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.