



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



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

|                               |                 |                         |            |
|-------------------------------|-----------------|-------------------------|------------|
| <b>1.1 Product Identifier</b> | 66XX/N          | <b>Revision Date:</b>   | 02/06/2015 |
| <b>Product Name:</b>          | GG 7 Isocyanate | <b>Supersedes Date:</b> | 29/05/2015 |

**1.2 Relevant identified uses of the substance or mixture and uses advised against** Hardener for 2 components coatings - Industrial use.

### 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  
 +39 02253751 Cologno Monzese, Italy

**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, oxirane, methyl-, polymer with 1,1'-methylenebis [isocyanatobenzene], methyloxirane polymer with oxirane ether with oxybis[propanol] (2:1), and oxirane

### 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 the 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

No information

### 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> |
|----------------|------------------|--|----------|
| 157937-75-2    |                  | oxirane, methyl-, polymer with 1,1'-methylenebis(isocyanatobenzene), methyloxirane polymer with oxirane ether with oxybis[propanol] (2:1), and oxirane | 25-50    |
| 101-68-8       | 202-966-0        | 4,4'-methylenediphenyl diisocyanate  | 10-25    |
| 5873-54-1      | 227-534-9        | diphenylmethane-2,4'-diisocyanate  | 2.5-10   |

| <u>CAS-No.</u> | <u>REACH Reg No.</u> | <u>CLP Symbols</u> | <u>CLP Hazard Statements</u>         | <u>M-Factors</u> |
|----------------|----------------------|--------------------|--------------------------------------|------------------|
| 157937-75-2    |                      | GHS07-GHS08        | H315-317-319-332-334-335-351-373     |                  |
| 101-68-8       |                      | 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.

#### 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

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. Water reactive.

## 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.

**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 |
|--|--------|----------|----------|------------------------|------------------------|----------|
| oxirane, methyl-, polymer with 1,1'-methylenebis[isocyanatobenzene], methyloxirane polymer with oxirane ether with oxybis[propanol] (2:1), and oxirane | 25-50  |          |          |                        |                        |          |
| 4,4'-methylenediphenyl diisocyanate  | 10-25  |          |          | 0.07                   | 0.02                   |          |
| diphenylmethane-2,4'-diisocyanate  | 2.5-10 |          |          |                        |                        |          |

**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. No personal respiratory protective equipment normally required.

**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>    | DARK BROWN     |
| <b>Physical State</b> | LIQUID         |
| <b>Odor</b>           | SLIGHTLY MUSTY |

|   |                   |
|---|-------------------|
| <b>Odor threshold</b>                               | Not determined    |
| <b>pH</b>   | NON-AQUEOUS       |
| <b>Melting point /freezing point (°C)</b>           | Not determined    |
| <b>Boiling point/range (°C)</b>                     | N.D. - N.D.       |
| <b>Flash Point, (°C)</b>                            | 220               |
| <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>                               | N. D.             |
| <b>Relative density</b>                             | Not determined    |
| <b>Solubility in /Miscibility with water</b>        | REACTS WITH WATER |
| <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>                                    | 2000 to 3500 cps  |
| <b>Explosive properties</b>                         | Not determined    |
| <b>Oxidising properties</b>                         | Not determined    |

**9.2 Other information**

|   |       |
|---|-------|
| <b>VOC Content g/l:</b>   | 5     |
| <b>Grams of VOC per liter of coating product as applied (mixture of Part A and Part B) per ASTM D2369 Method E.</b> |       |
| <b>Specific Gravity (g/cm<sup>3</sup>)</b>  | 1.080 |

## 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.

**10.5 Incompatible materials**

Reacts violently in contact with acids, amines, driers, polymerisation accelerators and easily oxidized materials. 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:**

|                                   |                           |
|-----------------------------------|---------------------------|
| <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<br>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

|   |                |
|---|----------------|
| <b>12.1 Toxicity:</b>                           |                |
| <b>EC50 48hr (Daphnia):</b>                     | No information |
| <b>IC50 72hr (Algae):</b>                       | No information |
| <b>LC50 96hr (fish):</b>                        | No information |
| <b>12.2 Persistence and degradability:</b>      | No information |
| <b>12.3 Bioaccumulative potential:</b>          | No information |
| <b>12.4 Mobility in soil:</b>                   | No information |
| <b>12.5 Results of PBT and vPvB assessment:</b> | No information |

**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> |
|----------------|--|------------------|------------------|------------------|
| 157937-75-2    | oxirane, methyl-, polymer with 1,1'-methylenebis[isocyanatobenzene], methyloxirane polymer with oxirane ether with oxybis[propanol] (2:1), and oxirane | No information   | No information   | No information   |
| 101-68-8       | 4,4'-methylenediphenyl diisocyanate  | >1000 mg/l       | No information   | >1000 mg/l       |
| 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:** No Information

**Packaging Waste Code:** 150110

### 14. Transport Information

- 14.1 UN number
- 14.2 UN proper shipping name  
Technical name
- 14.3 Transport hazard class(es)  
Subsidiary shipping hazard
- 14.4 Packing group
- 14.5 Environmental hazards
- 14.6 Special precautions for user Not applicable  
EmS-No.:
- 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

No Information

### 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.