

**Material Safety Data Sheet**  
*acc. to ISO/DIS 11014*

Printing Date 08/05/2010

Revision Number 4

Reviewed on 06/29/2007

**1 Identification of substance**

- **Product details**
- **Trade name:** DC12232 SILAPRENE SOLIDSEAL (POLYURETHANE)
- **Article number:** 12232
- **Manufacturer/Supplier:**  
 Royal Adhesives And Sealants, LLC  
 2001 W. Washington Street  
 South Bend IN 46628-2023
- **Information department:** Environment protection department.
- **Emergency information:** ChemTrec: UNITED STATES 1(800)424-9300 INTERNATIONAL 202-483-7616

**2 Composition/Data on components**

- **Chemical characterization**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

· <b>Dangerous components:</b>		
1330-20-7	xylene Warning:  2.6/3;  3.1.D/4, 3.1.I/4, 3.2/2	3.5%
101-68-8	4,4'-methylenediphenyl diisocyanate Danger:  3.4.R/1, 3.2/2, 3.3/2A, 3.4.S/1 Warning:  3.1.I/4, 3.8/3	0.6%

- **Additional information:** For the wording of the listed risk phrases refer to section 15.

**3 Hazards identification**

- **Hazard description:**  
Harmful
- **Information pertaining to particular dangers for man and environment:**  
 May cause sensitisation by inhalation.  
 Harmful by inhalation, in contact with skin and if swallowed.  
 Contains isocyanates. See information supplied by the manufacturer.
- **Classification system:**  
 The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**



- **GHS label elements**  
 Health hazard **Danger**  
 3.4/1 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.

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### Flame Warning

2,6/3 - Flammable liquid and vapour.

### Prevention:

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Use explosion-proof electrical/ventilating/lighting/equipment.

In case of inadequate ventilation wear respiratory protection.

Avoid breathing dust/fume/gas/mist/vapours/spray.

### Response:

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

### Disposal:

Dispose of contents/container in accordance with local/regional/national/international regulations.

## 4 First aid measures

- **After inhalation:** Overexposure, remove to fresh air and seek medical attention.
- **After skin contact:** Wash contaminated skin with soap and water.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** Seek medical treatment.

## 5 Fire fighting measures

- **Suitable extinguishing agents:**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Protective equipment:** Wear self-contained respiratory protective device.

## 6 Accidental release measures

- **Person-related safety precautions:** Keep away from ignition sources
- **Measures for environmental protection:** Do not allow to enter sewers/ surface or ground water.
- **Measures for cleaning/collecting:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose of contaminated material as waste in accordance with federal state and local regulations.  
Ensure adequate ventilation.

## 7 Handling and storage

- **Handling:**
- **Information for safe handling:** Ensure good ventilation/exhaustion at the workplace.
- **Information about protection against explosions and fires:** Keep ignition sources away - Do not smoke.
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location away from direct heat.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.

## 8 Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

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**· Components with limit values that require monitoring at the workplace:**

**1330-20-7 xylene (2.5-10%)**

PEL	435 mg/m <sup>3</sup> , 100 ppm
REL	Short-term value: 655 mg/m <sup>3</sup> , 150 ppm Long-term value: 435 mg/m <sup>3</sup> , 100 ppm
TLV	Short-term value: 651 mg/m <sup>3</sup> , 150 ppm Long-term value: 434 mg/m <sup>3</sup> , 100 ppm
BEI	

**101-68-8 4,4'-methylenediphenyl diisocyanate (≤2.5%)**

PEL	Short-term value: C 0.2 mg/m <sup>3</sup> , C 0.02 ppm
REL	Short-term value: C 0.2* mg/m <sup>3</sup> , C 0.02* ppm Long-term value: 0.05 mg/m <sup>3</sup> , 0.005 ppm *10-min
TLV	0.051 mg/m <sup>3</sup> , 0.005 ppm

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Personal protective equipment (see listings below)**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

· **Breathing equipment:**

Use approved respiratory protection equipment when airborne exposure is excessive. Consult the respirator manufacturer to determine the appropriate type of equipment for a given application. Observe respirator use limitations specified by the manufacturer.

· **Protection of hands:** Protective gloves

· **Eye protection:** Safety glasses with side shields.

· **Body protection:** Protective work clothing

## 9 Physical and chemical properties

**· General Information**

<b>Form:</b>	Viscous paste
<b>Color:</b>	Black
<b>Odor:</b>	Characteristic

**· Change in condition**

**Melting point:** Undetermined.

**Boiling point:** Undetermined.

· **Flash point:** 58°C (136°F) (SOLVENT)

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Specific gravity:** 1.170

**· Solubility in / Miscibility with**

**Water:** Not miscible or difficult to mix.

· **Segregation coefficient (n-octanol/water):** N/D

**· Solvent content:**

**Organic solvents:** 3.5 %

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Solids content: 96.5 %

· **Additional information:** VOC: = 74 g/l  
WEIGHT PER GALLON: = 9.74 lbs.

## \* 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Materials to be avoided:**
- **Dangerous reactions** No dangerous reactions known.
- **Dangerous products of decomposition:**  
Oxides of carbon and nitrogen.  
Isocyanate
- **Additional information:** AVOID EXPOSURE TO AIR OR MOISTURE UNTIL READY TO USE.

## \* 11 Toxicological information

· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

**101-68-8 4,4'-methylenediphenyl diisocyanate**

Oral	LD50	2200 mg/kg (mouse)
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- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** Inhalation - Sensitization possible through inhalation.
- **Additional toxicological information:**  
The product shows the following dangers according to internally approved calculation methods for preparations:  
Harmful

## 12 Ecological information

- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

## 13 Disposal considerations

- **Product:**
- **Recommendation:**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

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## 14 Transport information

- **DOT regulations:**
- **Hazard class:** NON REGULATED

## 15 Regulations

- **Sara**

- **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

- **Section 313 (Specific toxic chemical listings):**

Substance is listed.

1330-20-7	xylene
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101-68-8	4,4'-methylenediphenyl diisocyanate
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- **TSCA (Toxic Substances Control Act):**

All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.

- **Proposition 65**

- **Chemicals known to cause cancer:**

None of the ingredients is listed.

- **Chemicals known to cause reproductive toxicity:**

None of the ingredients is listed.

- **(DSL) Canada Domestic Substance List**

All components of this product are on the DSL(Canada Domestic Substance list) or are exempt from DSL requirements.

- **Carcinogenicity categories**

- **EPA (Environmental Protection Agency)**

1330-20-7	xylene			
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101-68-8	4,4'-methylenediphenyl diisocyanate			
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CBD;D

- **IARC (International Agency for Research on Cancer)**

1330-20-7	xylene			
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101-68-8	4,4'-methylenediphenyl diisocyanate			
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- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **TLV (Threshold Limit Value established by ACGIH)**

1330-20-7	xylene			
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- **MAK (German Maximum Workplace Concentration)**

101-68-8	4,4'-methylenediphenyl diisocyanate			
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- **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

- **Product related hazard informations:**

The product has been classified and marked in accordance with directives on hazardous materials.

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· **Hazard-determining components of labelling:**

4,4'-methylenediphenyl diisocyanate

· **Risk phrases:**

Slight irritant.

May cause sensitisation by inhalation.

Harmful by inhalation, in contact with skin and if swallowed.

· **Special labeling of certain preparations:**

Contains isocyanates. See information supplied by the manufacturer.

· **National regulations:**

· **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

## \* 16 Other information

Although the information and recommendations set forth in this MSDS are presented in good faith and are believed to be correct as of the date of this MSDS, Royal Adhesives & Sealants makes no representations as to the completeness or accuracy thereof. Information is supplied on the condition that the persons receiving and using it will make their own determination as to the suitability for their purpose prior to use. In no event will Royal Adhesives & Sealants or any affiliate thereof be responsible for damages of any nature whatsoever resulting from the use or reliance on the information set forth in the MSDS.

· **Department issuing MSDS:** Environment protection department.

· **Abbreviations and acronyms:**

DOT: US Department of Transportation

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

ACGIH: American Conference of Governmental Industrial Hygienists

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

USA

New Pig MSDS#(MSD-V407)