

## Safety Data Sheet acc. to OSHA HCS

Printing Date 02/17/2016

Revision Number 2

Revision Date 02/17/2016

### 1 Identification

- **Product identifier**
- **Trade name:** 12154 SolidSeal (Grey)
- **Article number:** 12154B
- **Relevant identified uses of the substance or mixture.** Sealant
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
 Royal Adhesives And Sealants, LLC  
 2001 W. Washington Street  
 South Bend IN 46628-2023  
 Information Phone Number: 574-246-5000
- **Information department:** Environment protection department.
- **Emergency telephone number:**  
 ChemTrec: Day or Night within USA and Canada: 1-800-424-9300.  
 Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

### 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS08 Health hazard

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Carc. 2 H351 Suspected of causing cancer.



GHS07

Skin Sens. 1 H317 May cause an allergic skin reaction.

- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS08

- **Signal word** Danger
- **Hazard statements**  
 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
 May cause an allergic skin reaction.  
 Suspected of causing cancer.
- **Precautionary statements**  
 [In case of inadequate ventilation] wear respiratory protection.  
 Avoid breathing dust/fume/gas/mist/vapors/spray  
 Wear protective gloves.

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Contaminated work clothing must not be allowed out of the workplace.  
 Obtain special instructions before use.  
 Do not handle until all safety precautions have been read and understood.  
 Specific treatment (see on this label).  
 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.  
 Wash contaminated clothing before reuse.  
 If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.  
 IF exposed or concerned: Get medical advice/attention.  
 If skin irritation or rash occurs: Get medical advice/attention.  
 IF ON SKIN: Wash with plenty of water.  
 Store locked up.  
 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



Health = 2  
 Fire = 1  
 Reactivity = 0

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



Health = 2  
 Fire = 1  
 Physical Hazard = 0

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

### 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture

#### · Hazardous components:

1330-20-7	xylene	2.5-10%
90622-57-4	isoparaffinic hydrocarbons	≤2.5%
101-68-8	4,4'-methylenediphenyl diisocyanate	≤0.5%
25686-28-6	Diphenylmethane Diisocyanate (Homopolymer)	≤0.5%

### 4 First-aid measures

- **Description of first aid measures**
- **After inhalation:**  
 Supply fresh air or oxygen; call for doctor.  
 Overexposure, remove to fresh air and seek medical attention.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** Seek medical treatment.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.

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- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

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## 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.  
Use fire fighting measures that suit the environment.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

\*

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Wear protective equipment. Keep unprotected persons away.  
Ensure adequate ventilation
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Pick up mechanically.  
Dispose of contaminated material as waste in accordance with federal state and local regulations.  
Ensure adequate ventilation.
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

\*

## 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
Avoid prolonged or repeated contact with skin.  
Avoid contact with eyes.  
Wash thoroughly after handling.  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **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:** Store away from oxidizing agents.
- **Further information about storage conditions:**  
Keep receptacle tightly sealed.  
Protect from heat and direct sunlight.  
Protect product from freezing.  
Store in dry conditions.
- **Specific end use(s)** No further relevant information available.

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### 8 Exposure controls/personal protection

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

· **Control parameters**

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

#### 1330-20-7 xylene

PEL Long-term value: 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

PEL Ceiling limit value: 0.2 mg/m<sup>3</sup>, 0.02 ppm

REL Long-term value: 0.05 mg/m<sup>3</sup>, 0.005 ppm

Ceiling limit value: 0.2\* mg/m<sup>3</sup>, 0.02\* ppm

\*10-min

TLV Long-term value: 0.051 mg/m<sup>3</sup>, 0.005 ppm

· **Ingredients with biological limit values:**

#### 1330-20-7 xylene

BEI 1.5 g/g creatinine

Medium: urine

Time: end of shift

Parameter: Methylhippuric acids

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

· **Exposure controls**

· **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

· **Material of gloves**

Viton

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

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

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· **Body protection:** Protective work clothing

### 9 Physical and chemical properties

#### · Information on basic physical and chemical properties

##### · General Information

##### · Appearance:

Form: Viscous paste

Color: White

· Odor: Characteristic

· Odor threshold: Not determined.

##### · Change in condition

Melting point: Undetermined.

Boiling point: > 200 °C (> 392 °F)

· Flash point: >200C  
Not applicable.

· Auto igniting: Product is not selfigniting.

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

· Vapor pressure: Not determined.

· Specific gravity at 20 °C (68 °F): 1.19 g/cm<sup>3</sup> (9.931 lbs/gal)

· Relative density: Not determined.

##### · Solubility in / Miscibility with

Water: Not miscible or difficult to mix.

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

##### · Viscosity:

Dynamic: Not determined.

Kinematic: Not determined.

##### · Solvent content:

Organic solvents: 4.0 %

VOC (Per EPA 24) not available GMS/L

· Other information VOC's - 69.3 grams/liter

### 10 Stability and reactivity

· **Reactivity** No further relevant information available.

##### · Chemical stability

· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

· **Possibility of hazardous reactions** No dangerous reactions known.

· **Conditions to avoid** Heat, flames, sparks.

##### · Incompatible materials:

Reacts with alcohols.

Reacts with water.

Reacts with amines.

##### · Hazardous decomposition products:

Carbon monoxide and carbon dioxide

Nitrogen oxides

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Sulfur oxides (SOx)  
Hydrogen chloride (HCl)  
Hydrocarbons

### 11 Toxicological information

· **Information on toxicological effects**

· **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:** May irritate the skin.

· **on the eye:** May irritate the eye.

· **Sensitization:** Prolonged or repeated contact may cause sensitization to the skin and lungs.

· **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:  
Harmful

· **Carcinogenic categories**

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

1330-20-7	xylene	3
100-41-4	ethylbenzene	2B
101-68-8	4,4'-methylenediphenyl diisocyanate	3
13463-67-7	titanium dioxide	2B
1333-86-4	Carbon black	2B
108-95-2	phenol	3
98-88-4	benzoyl chloride	2A

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

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

None of the ingredients is listed.

### 12 Ecological information

· **Toxicity**

· **Aquatic toxicity:** No further relevant information available.

· **Persistence and degradability** No further relevant information available.

· **Behavior in environmental systems:**

· **Bioaccumulative potential** No further relevant information available.

· **Mobility in soil** No further relevant information available.

· **Additional ecological information:**

· **General notes:** At present there are no ecotoxicological assessments.

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

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· **Other adverse effects** No further relevant information available.

### 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:** Must be specially treated adhering to official regulations.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

### 14 Transport information

- |  |  |
|--|--|
| · <b>UN-Number</b>   |  |
| · <b>DOT, ADR, ADN, IMDG, IATA</b>   | not regulated  |
| · <b>UN proper shipping name</b>   |  |
| · <b>DOT, ADR, ADN, IMDG, IATA</b>   | not regulated  |
| · <b>Transport hazard class(es)</b>  |  |
| · <b>DOT, ADR, ADN, IMDG, IATA</b>   |  |
| · <b>Class</b>   | not regulated  |
| · <b>Packing group</b>   |  |
| · <b>DOT, ADR, IMDG, IATA</b>  | not regulated  |
| · <b>Environmental hazards:</b>  | Not applicable.                                      |
| · <b>Special precautions for user</b>  | Not applicable.                                      |
| · <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | Not applicable.                                      |
| · <b>Transport/Additional information:</b>                                       | Not dangerous according to the above specifications. |
| · <b>UN "Model Regulation":</b>  | not regulated  |

### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**

#### · **Section 355 (extremely hazardous substances):**

108-95-2 phenol

#### · **Section 313 (Specific toxic chemical listings):**

Substance is listed.

1330-20-7 xylene

100-41-4 ethylbenzene

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

108-95-2 phenol

98-88-4 benzoyl chloride

#### · **TSCA (Toxic Substances Control Act):**

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

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· **Proposition 65**· **Chemicals known to cause cancer:**

100-41-4	ethylbenzene
13463-67-7	titanium dioxide
1333-86-4	Carbon black

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

None of the ingredients is listed.

· **Chemicals known to cause developmental 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.

· **New Jersey Right-to-Know List:**

None of the ingredients is listed.

· **New Jersey Special Hazardous Substance List:**

None of the ingredients is listed.

· **Pennsylvania Right-to-Know List:**

None of the ingredients is listed.

· **Pennsylvania Special Hazardous Substance List:**

None of the ingredients is listed.

· **Carcinogenicity categories**· **EPA (Environmental Protection Agency)**

1330-20-7	xylene	I
100-41-4	ethylbenzene	D
101-68-8	4,4'-methylenediphenyl diisocyanate	D, CBD
108-95-2	phenol	D, I

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

1330-20-7	xylene	A4
100-41-4	ethylbenzene	A3
13463-67-7	titanium dioxide	A4
1333-86-4	Carbon black	A4
108-95-2	phenol	A4
98-88-4	benzoyl chloride	A4

· **MAK (German Maximum Workplace Concentration)**

100-41-4	ethylbenzene	3A
101-68-8	4,4'-methylenediphenyl diisocyanate	4
13463-67-7	titanium dioxide	3A
1333-86-4	Carbon black	3B
108-95-2	phenol	3B
98-88-4	benzoyl chloride	3B

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

13463-67-7	titanium dioxide
1333-86-4	Carbon black

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- **National regulations:**
- **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### 16 Other information

Although the information and recommendations set forth in this SDS are presented in good faith and are believed to be correct as of the date of this SDS, 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 SDS.

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

· **Creation Date:** 08/04/2014

· **Date of preparation / last revision** 02/17/2016 / 1

· **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

BEI: Biological Exposure Limit

Resp. Sens. 1: Sensitisation - Respirat., Hazard Category 1

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

Carc. 2: Carcinogenicity, Hazard Category 2