

## 1 Identification of substance

### Product details

**Trade name:** 245 Form Seal

**MSDS ID Number:** D-05819

**Replaces MSDS ID Number:** D-05740

### Manufacturer/Supplier:

W.R. Grace & Co. -Conn.  
62 Whittemore Avenue  
Cambridge, MA 02140 USA

Grace Canada, Inc.  
294 Clements Road W.  
Ajax, Ontario L1S 3C6 Canada

### Information department:

Environmental Health & Safety  
USA: 1-617-876-1400 (24 hours)  
1-800-354-5414 (8AM - 5PM)  
CAN: 1-905-683-8561 (24 hours)

**Transport Emergency:** Chemtrec 1-800-424-9300 (24 hours)

## 2 Composition/Data on components

### Chemical characterization

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

#### Hazardous components:

1330-20-7	Xylene	Xn; R 10-20/21-38	30-50%
100-41-4	Ethylbenzene	Xn, F; R 11-20	10-20%
26471-62-5	Toluene-diisocyanate	T+; R 26-36/37/38-40-42/43-52/53	0.0-1.0%

**Additional information:** For the wording of the listed risk phrases refer to section 16.

## 3 Hazards identification

### Hazard description:

Xn Harmful  
F Highly flammable

### Information pertaining to particular dangers for man and environment:

Review information in this MSDS and product label prior to use.

Highly flammable.

Harmful by inhalation.

Irritating to eyes and skin.

May cause sensitization by inhalation.

Contains isocyanates. Sensitization resulting in asthma-like symptoms on subsequent exposures, even below regulatory limits.

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**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)**

Health = 3

Fire = 3

Reactivity = 0

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

Health = \*3

Fire = 3

Reactivity = 0

**4 First aid measures****General information:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

**After skin contact:**

Immediately wash contaminated skin with soap or mild detergent and water. If this chemical soaks clothing, immediately remove clothing and wash skin.

If skin irritation continues, consult a doctor.

**After eye contact:**

Rinse opened eye for several minutes under running water.

Seek immediate medical advice.

**After swallowing:** Do not induce vomiting; immediately call for medical help.

**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.

**Additional information** Collect contaminated fire fighting water separately. It must not enter the sewage system.

**6 Accidental release measures**

**Person-related safety precautions:** Wear protective equipment. Keep unprotected persons away.

**Measures for environmental protection:** Prevent seepage into sewage system, workpits and cellars.

**Measures for cleaning/collecting:**

Contain and/or absorb spill with inert material (i.e. sand, vermiculite) then place in a suitable container.

Sweep up spilled product into receptacles.

Dispose contaminated material as waste according to section 13 of the MSDS.

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**7 Handling and storage****Handling:****Information for safe handling:**

Open and handle receptacle with care.

Prevent formation of aerosols.

Flammable mixtures with air can be formed in emptied containers. Do not puncture, cut, drill, heat or weld uncleaned drums.

**Information about protection against explosions and fires:**

Use only in explosion protected area.

Protect against electrostatic charges.

Use explosion-proof apparatus / fittings and spark-proof tools.

Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).

Use only with adequate ventilation. Forced ventilation is necessary in pits and poorly ventilated areas.

Empty containers may retain hazardous residue, both liquid and vapor. Do not cut, drill, grind or weld on or near container, whether empty or full.

**Storage:****Requirements to be met by storerooms and receptacles:** Store in a cool location.**Information about storage in one common storage facility:**

Keep ignition sources away - Do not smoke.

Use only in explosion protected area.

Protect against electrostatic charges.

Use explosion-proof apparatus / fittings and spark-proof tools.

**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.**Components with limit values that require monitoring at the workplace:****1330-20-7 Xylene**

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 (o-, m-, & p-isomers)
TLV	Short-term value: 651 mg/m <sup>3</sup> , 150 ppm Long-term value: 434 mg/m <sup>3</sup> , 100 ppm BEI

**100-41-4 Ethylbenzene**

PEL	435 mg/m <sup>3</sup> , 100 ppm
REL	Short-term value: 545 mg/m <sup>3</sup> , 125 ppm Long-term value: 435 mg/m <sup>3</sup> , 100 ppm
TLV	Short-term value: 543 mg/m <sup>3</sup> , 125 ppm Long-term value: 434 mg/m <sup>3</sup> , 100 ppm BEI

**26471-62-5 Toluene-diisocyanate**

REL	Lowest feas. conc.
TLV	Short-term value: 0.14 mg/m <sup>3</sup> , 0.02 ppm Long-term value: 0.036 mg/m <sup>3</sup> , 0.005 ppm A4; NIC-SEN

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

### Personal protective equipment:

#### General protective and hygienic measures:

Avoid contact with the eyes and skin.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

#### Breathing equipment:

A chemical cartridge respirator with organic vapor cartridge is required when local exhaust is unavailable or inadequate to control exposures below required limits. Due to the presence of Toluene-diisocyanate, supplied air respirators must be worn whenever the product is spray applied and/or applied in poorly ventilated areas unless local exhaust will maintain exposures below acceptable limits.

#### Protection of hands:

Gloves should be worn to prevent skin contact and should be impermeable and resistant to the product.

#### Material of gloves

Gloves should be impermeable and resistant to the product. Selection of material should be considered before use.

#### Eye protection:



Tightly sealed goggles

#### Face protection

Safety glasses with side shields should be worn to prevent contact due to splashing. Under high vapor mist concentrations, tightly sealed goggles should be worn.

**Body protection:** Protective work clothing

## 9 Physical and chemical properties

### General Information

<b>Form:</b>	Fluid
<b>Color:</b>	According to product specification
<b>Odor:</b>	Characteristic

### Change in condition

<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	136°C (277°F)

**Flash point:** 24°C (75°F)

**Ignition temperature:** 430.0°C (806°F)

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

**Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

### Explosion limits:

<b>Lower:</b>	0.9 Vol %
<b>Upper:</b>	8.0 Vol %

**Maximum VOC:** 62.00 %

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**Vapor pressure at 20°C (68°F):** 9.5 hPa (7 mm Hg)**Density at 20°C (68°F):** 0.959 g/cm<sup>3</sup>**Solubility in / Miscibility with Water:** Not miscible or difficult to mix.**10 Stability and reactivity****Thermal decomposition:** No decomposition if used according to specifications.**Dangerous products of decomposition:**

Carbon monoxide and carbon dioxide

Other potentially hazardous products may also be formed.

**Additional information:** See section 7 for information on handling, storage and conditions to be avoided.**11 Toxicological information****Acute toxicity:****LD/LC50 values that are relevant for classification:****1330-20-7 Xylene**

Dermal LD50 2000 mg/kg (rbt)

Inhalative LC50/4 h 6350 mg/l (rat)

**100-41-4 Ethylbenzene**

Oral LD50 3500 mg/kg (rat)

Dermal LD50 17800 mg/kg (rbt)

**108-88-3 Toluene**

Oral LD50 5000 mg/kg (rat)

Dermal LD50 12124 mg/kg (rabbit)

Inhalative LC50/4 h 5320 mg/l (mus)

**Primary irritant effect:****on the skin:** Irritant to skin and mucous membranes.**on the eye:** Irritating effect.**Sensitization:** Sensitization possible through inhalation.**Additional toxicological information:**

Harmful

Irritant

Over exposure by inhalation or ingestion may be fatal. Chemicals contained in this product can affect the skin, heart, brain, liver, kidneys, lungs and spleen. Some harmful effects are also possible through skin absorption.

**12 Ecological information****General notes:**

Water hazard class 2 (Self-assessment): hazardous for water

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Do not allow product to reach ground water, water course or sewage system.  
 Danger to drinking water if even small quantities leak into the ground.

**13 Disposal considerations****Product:**

Comply with Federal, State, and local regulations  
 Waste product is defined as hazardous by US EPA due to ignitability (D001).

**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.

**14 Transport information****DOT regulations:**

**Hazard class:** 3  
**Identification number:** UN1866  
**Packing group:** III  
**Proper shipping name (technical name):** RESIN SOLUTION  
**Label:** 3

**Land transport ADR/RID (cross-border):**

**ADR/RID class:** 3 Flammable liquids  
**Danger code (Kemler):** 30  
**UN-Number:** 1866  
**Packaging group:** III  
**Description of goods:** 1866 RESIN SOLUTION (not viscous)

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**Maritime transport IMDG:**

**IMDG Class:** 3  
**UN Number:** 1866  
**Label:** 3  
**Packaging group:** III  
**EMS Number:** F-E,S-E  
**Marine pollutant:** No  
**Proper shipping name:** RESIN SOLUTION

**Air transport ICAO-TI and IATA-DGR:**

**ICAO/IATA Class:** 3  
**UN/ID Number:** 1866  
**Label:** 3  
**Packaging group:** III  
**Proper shipping name:** RESIN SOLUTION

**15 Regulations****SARA (Superfund Amendments and Reauthorization Act)****Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

**Section 313 (specific toxic chemical listings):**

1330-20-7	Xylene
100-41-4	Ethylbenzene
26471-62-5	Toluene-diisocyanate
108-88-3	Toluene

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

All ingredients are listed or exempt from listing unless otherwise noted below.

**WHMIS Classification(s):****CEPA (Canadian DSL):**

All ingredients are listed or exempt from listing unless otherwise noted below.

CEPA (Canadian NDSL) This product contains an NDSL listed chemical at &lt;0.8 %.

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

26471-62-5 Toluene-diisocyanate

71-43-2 Benzene

**Chemicals known to cause reproductive toxicity:**

108-88-3 Toluene

71-43-2 Benzene

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

1330-20-7 Xylene D

100-41-4 Ethylbenzene D

108-88-3 Toluene D

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

1330-20-7 Xylene 3

100-41-4 Ethylbenzene 2B

108-88-3 Toluene 3

**NTP (National Toxicology Program)**

None of the ingredients is listed.

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

1330-20-7 Xylene A4

108-88-3 Toluene A4

**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.

**National Volatile Organic Emission Standards for Architectural Coatings:**

Volatile Organic Content: 592.0 g/L

**Thinning Recommendation:**

Thin first two coats with 245 Thinner® at a 1:1 ratio.

VOC content of the mixture: 725.0g/L

**Product related hazard informations:****Hazard symbols:**

Xn Harmful

F Highly flammable

**Hazard-determining components of labelling:**

Toluene-diisocyanate

Xylene

**Risk phrases:**

Highly flammable.

Harmful by inhalation.

Irritating to eyes and skin.

May cause sensitization by inhalation.

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**Safety phrases:**

Keep out of the reach of children.  
Keep container in a well-ventilated place.  
Keep away from food, drink and animal feedingstuffs.  
Do not breathe gas/fumes/vapour/spray.  
Avoid contact with eyes.  
Wear suitable protective clothing and gloves.  
In case of fire, use sand, carbon dioxide or powdered extinguishing agent. Never use water.  
In case of accident or if you feel unwell, seek medical advice immediately.  
Use only in well-ventilated areas.  
Not recommended for interior use on large surface areas.  
Dispose of this material and its container at hazardous or special waste collection point  
This material and its container must be disposed of as hazardous waste.  
In case of accident by inhalation: remove casualty to fresh air and keep at rest  
If swallowed, rinse mouth with water (only if the person is conscious)

**Special labeling of certain preparations:**

Contains isocyanates. Sensitization resulting in asthma-like symptoms on subsequent exposures, even below regulatory limits.

**16 Other information**

"The data included herein are presented in accordance with various environment, health and safety regulations. It is the responsibility of a recipient of the data to remain currently informed on chemical hazard information, to design and update its own program and to comply with all national, federal, state and local laws and regulations applicable to safety, occupational health, right-to-know and environmental protection."

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