

## 1. Product and Company Identification

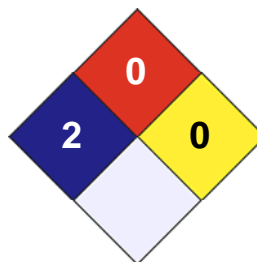
**Product name** RESOLVE® (SPRAY'N WASH®) Pre-Treat Laundry Stain Remover (Trigger)  
**CAS #** Mixture  
 This MSDS is designed for workplace employees, emergency personnel and for other conditions and situations where there is a greater potential for large-scale or prolonged exposure, in accordance with requirements of the U.S. Government's Occupational Safety and Health Administration (OSHA).  
 This MSDS is not applicable for consumer use of our products. For consumer use, all precautionary and first aid language is provided on the product label in accordance with the applicable government regulation.

**Product Use** Stain remover

**Distributed by** Reckitt Benckiser  
 Morris Corporate Center IV  
 399 Interpace Parkway  
 P.O. Box 225  
 Parsippany, NJ 07054-0225  
 In Case of Emergency: 1-800-338-6167  
 Transportation Emergencies: 24 Hour Number:  
 North America: CHEMTREC: 1-800-424-9300  
 Outside North America: 1-703-527-3887

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

<b>HEALTH</b>	/ 2
<b>FLAMMABILITY</b>	0
<b>PHYSICAL HAZARD</b>	0
<b>PERSONAL PROTECTION</b>	B



## 2. Hazards Identification

**Emergency overview** CAUTION  
 EYE AND SKIN IRRITANT.  
 May be harmful if directly inhaled.  
 DO NOT get in eyes, on skin or inhale spray.  
 DO NOT treat garments while wearing.  
 KEEP OUT OF REACH OF CHILDREN.

### Potential short term health effects

**Routes of exposure** Eye, Skin contact, Inhalation, Ingestion.  
**Eyes** Eye irritant.  
**Skin** Skin irritant.  
**Inhalation** Inhalation toxicity not determined.  
**Ingestion** Not orally toxic.  
**Target organs** Eyes. Respiratory system. Skin.  
**Chronic effects** The finished product is not expected to have chronic health effects.  
**Signs and symptoms** Symptoms may include redness, edema, drying, defatting and cracking of the skin. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.  
**OSHA regulatory status** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

---

### 3. Composition/Information on Ingredients

---

Components	CAS #	Percent
Alcohols, C12-16, ethoxylated	68551-12-2	2.5 - 10
1,2-Propanediol	57-55-6	1 - 2.5
Sodium citrate	6132-04-3	1 - 2.5
Subtilisin carlsburg	9014-01-1	0 - 0.1

---

### 4. First Aid Measures

---

#### First aid procedures

<b>Eye contact</b>	If in eyes, IMMEDIATELY rinse eyes with water. Remove any contact lenses and continue rinsing eyes for at least 15 minutes. If irritation develops, get medical attention.
<b>Skin contact</b>	If on skin, wash with soap and water. If Irritation develops, get medical attention.
<b>Inhalation</b>	If inhaled and irritation or an allergic reaction occurs, get medical attention.
<b>Ingestion</b>	If swallowed, rinse mouth and drink a glass of water. Do not induce vomiting or give anything by mouth to an unconscious person. Call a physician or Poison Control Center.

#### Notes to physician

Symptoms may be delayed.

#### General advice

If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Keep out of reach of children.

---

### 5. Fire Fighting Measures

---

<b>Flammable properties</b>	Not flammable by OSHA criteria.
<b>Extinguishing media</b>	
<b>Suitable extinguishing media</b>	Treat for surrounding material.
<b>Unsuitable extinguishing media</b>	Not available
<b>Protection of firefighters</b>	
<b>Specific hazards arising from the chemical</b>	Not available
<b>Protective equipment and precautions for firefighters</b>	Firefighters should wear full protective clothing including self contained breathing apparatus.
<b>Hazardous combustion products</b>	May include and are not limited to: Oxides of carbon. Oxides of nitrogen.
<b>Explosion data</b>	
<b>Sensitivity to mechanical impact</b>	Not available.
<b>Sensitivity to static discharge</b>	Not available.

---

### 6. Accidental Release Measures

---

<b>Personal precautions</b>	Avoid contact with eyes. Keep unnecessary personnel away. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak.
<b>Environmental precautions</b>	Do not discharge into lakes, streams, ponds or public waters. Advise authorities if product has penetrated drains, sewers or water pipes.
<b>Methods for containment</b>	Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas.

---

**Methods for cleaning up**

Before attempting clean up, refer to hazard data given above. Small spills may be absorbed with non-reactive absorbent and placed in suitable, covered, labelled containers. Prevent large spills from entering sewers or waterways. Contact emergency services and supplier for advice. Never return spills to original containers for re-use.

## 7. Handling and Storage

**Handling**

**CAUTION**  
**EYE AND SKIN IRRITANT.**  
 Ensure adequate ventilation. DO NOT get in eyes, on skin or inhale spray. May be harmful if directly inhaled.  
 DO NOT treat garment while wearing.  
 When using do not eat or drink.  
 Wash hands before breaks and immediately after handling the product.  
 Always test garment before using by applying to an inconspicuous area.  
 Not recommended to apply directly on khaki, washable silk and fluorescent clothing.

**Storage**

Keep out of reach of children.  
 Store in a closed container away from incompatible materials.  
 Store in a cool dry place inaccessible to children and pets.

## 8. Exposure Controls/Personal Protection

**Occupational exposure limits****US. ACGIH Threshold Limit Values****Components****Type****Value**

Subtilisin carlsburg (CAS  
 9014-01-1)

Ceiling

0.00006 mg/m<sup>3</sup>

**Exposure limits**

Chemicals listed in section 3 that are not listed here do not have established limit values for ACGIH or OSHA PEL.

**Engineering controls**

General ventilation normally adequate.

**Personal protective equipment**

**Consult the product label for special protection or precautions that have been identified for using this product under directed consumer use conditions. The following recommendations are given for workplace employees, emergency personnel and for other conditions and situations where there is a greater potential for large-scale or prolonged exposure.**

**Eye / face protection**

If splashing is likely to occur or for occupational exposures, wear appropriate eye protection. Emergency responders should wear full eye and face protection.

**Hand protection**

Avoid contact with the skin. Wear rubber gloves if repeated or prolonged contact with skin is possible.  
 Emergency responders should wear impermeable gloves.

**Skin and body protection**

As required by employer code.  
 Emergency responders should wear impermeable clothing and footwear when responding to a situation where contact with the liquid is possible.

**Respiratory protection**

Where exposure guideline levels may be exceeded, use an approved NIOSH respirator. Emergency responders should wear self-contained breathing apparatus (SCBA) to avoid inhalation of vapours generated by this product during a spill or other clean-up operations.

**General hygiene considerations**

Handle in accordance with good industrial hygiene and safety practice.  
 When using do not eat or drink.  
 Washing with soap and water after use is recommended as good hygienic practice to prevent possible eye irritation from hand contact.

## 9. Physical and Chemical Properties

**Appearance**

Clear

**Color**

Colorless

**Form**

Liquid

**Odor**

Perfume

**Odor threshold**

Not available.

**Physical state**

Liquid.

**pH**

8.5 - 9.5

**Freezing point**

Not available.

<b>Boiling point</b>	Not available.
<b>Pour point</b>	Not available.
<b>Evaporation rate</b>	Not available
<b>Flash point</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Flammability limits in air, upper, % by volume</b>	Not available.
<b>Flammability limits in air, lower, % by volume</b>	Not available.
<b>Vapor pressure</b>	Not available.
<b>Vapor density</b>	Not available.
<b>Specific gravity</b>	1.004 - 1.008
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Solubility (water)</b>	Complete
<b>Relative density</b>	Not available.
<b>Viscosity</b>	Not available.
<b>VOC</b>	Not available
<b>Percent volatile</b>	Not available

---

### 10. Stability and Reactivity

---

<b>Reactivity</b>	This product may react with strong oxidizing agents.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.
<b>Chemical stability</b>	Stable under recommended storage conditions.
<b>Conditions to avoid</b>	DO NOT MIX WITH BLEACH or use in conjunction with other household products.
<b>Incompatible materials</b>	Oxidizers. Caustics.
<b>Hazardous decomposition products</b>	May include and are not limited to: Oxides of carbon. Oxides of nitrogen.

---

### 11. Toxicological Information

---

#### Toxicological data

Components	Species	Test Results
1,2-Propanediol (CAS 57-55-6)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	20800 mg/kg
<i>Oral</i>		
LD50	Dog	19 g/kg
	Guinea pig	18.4 g/kg
	Mouse	23.9 g/kg
	Rabbit	14800 mg/kg
		18 g/kg
	Rat	20000 mg/kg
		30 g/kg
<b>LC50</b>		
Not available.		
Alcohols, C12-16, ethoxylated (CAS 68551-12-2)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	>= 2000 mg/kg

Components	Species	Test Results
Oral LD50	Rat	1380 mg/kg
<b>LC50</b> Not available.		
Sodium citrate (CAS 6132-04-3)		
<b>Acute</b> Oral LD50		> 8000 mg/kg
<b>LC50</b> Not available.		
Subtilisin carlsburg (CAS 9014-01-1)		
<b>LC50</b> Not available.		
<b>LD50</b> Not available.		

#### Effects of acute exposure

<b>Eye contact</b>	Eye irritant.
<b>Skin contact</b>	Skin irritant.
<b>Inhalation</b>	Inhalation toxicity not determined.
<b>Ingestion</b>	Not orally toxic.
<b>Sensitization</b>	The finished product is not expected to have chronic health effects.
<b>Chronic effects</b>	The finished product is not expected to have chronic health effects.
<b>Carcinogenicity</b>	The finished product is not expected to have chronic health effects.
<b>Mutagenicity</b>	The finished product is not expected to have chronic health effects.
<b>Reproductive effects</b>	The finished product is not expected to have chronic health effects.
<b>Teratogenicity</b>	The finished product is not expected to have chronic health effects.
<b>Name of Toxicologically Synergistic Products</b>	Not available.

## 12. Ecological Information

<b>Ecotoxicity</b>	See below		
<b>Ecotoxicological data</b>			
<b>Components</b>	<b>Species</b>	<b>Test Results</b>	
1,2-Propanediol (CAS 57-55-6)			
<b>Aquatic</b>			
Crustacea	EC50	Daphnia	10000 mg/L, 48 Hours
		Water flea (Daphnia magna)	> 10000 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	710 mg/l, 96 hours
<b>Persistence and degradability</b>	Not available.		
<b>Bioaccumulation / Accumulation</b>	Not available		
<b>Mobility in environmental media</b>	Not available.		
<b>Environmental effects</b>	Not available.		
<b>Aquatic toxicity</b>	Not available.		
<b>Partition coefficient</b>			
1,2-Propanediol		-0.92	
<b>Chemical fate information</b>	Not available.		

---

### 13. Disposal Considerations

---

<b>Disposal instructions</b>	Dispose in accordance with all applicable regulations. Do not reuse container. Rinse container and offer for recycling where facilities exist.
<b>Waste from residues / unused products</b>	Not available
<b>Contaminated packaging</b>	Not available

---

### 14. Transport Information

---

**UN/ID N.o.** Not applicable

**U.S. Department of Transportation (DOT): Classification:** Not regulated

**Proper shipping name** Not applicable

**U.S. DOT Hazard Class** Not applicable

**Subsidiary Risk** Not applicable

**Packing group** Not applicable

**DOT RQ (lbs)** Not applicable

**ERG NO** Not applicable

**Transportation of Dangerous Goods (TDG - Canada): Classification:** Not regulated

**Proper shipping name** Not applicable

**Status** Not applicable

**Packing group** Not applicable

**IMDG (Marine Transport): Classification:** Not regulated

**Proper shipping name** Not applicable

**Class** Not applicable

**Subsidiary Risk** Not applicable

**Packing group** Not applicable

**IMDG Page** Not applicable

**Marine pollutant** Not applicable

**EMS** Not applicable

**MFAG** Not applicable

**Maximum Quantity** Not applicable

**IATA/ICAO (Air): Classification:** Not regulated

**Proper shipping name** Not applicable

**Class** Not applicable

**Subsidiary Risk:** Not applicable

**Packing group** Not applicable

**Maximum Quantity** Not applicable

---

### 15. Regulatory Information

---

**Occupational Safety and Health Administration (OSHA)**

**29 CFR 1910.1200  
hazardous chemical** Yes

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.  
Product Registration: Product is compliant with CPSC regulatory guidelines; a specific registration is not required for this product.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**CERCLA Hazardous Substance List (40 CFR 302.4)**

Not listed.

**US CAA Section 111 Volatile Organic Compounds: Listed substance**

1,2-Propanediol (CAS 57-55-6) Listed.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**CERCLA (Superfund) reportable quantity**

None

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories** Immediate Hazard - Yes  
Delayed Hazard - No  
Fire Hazard - No  
Pressure Hazard - No  
Reactivity Hazard - No

**State regulations** This product is not subject to warning labeling under the California Proposition 65 regulation.

**US - California Hazardous Substances (Director's): Listed substance**

Subtilisin carlsburg (CAS 9014-01-1) Listed.

**US - Minnesota Haz Subs: Listed substance**

1,2-Propanediol (CAS 57-55-6) Listed.

**US - New Jersey RTK - Substances: Listed substance**

1,2-Propanediol (CAS 57-55-6) Listed.

**US - Texas Effects Screening Levels: Listed substance**

1,2-Propanediol (CAS 57-55-6) Listed.

Alcohols, C12-16, ethoxylated (CAS 68551-12-2) Listed.

Sodium citrate (CAS 6132-04-3) Listed.

**US. Massachusetts RTK - Substance List**

Not regulated.

**US. Pennsylvania RTK - Hazardous Substances**

1,2-Propanediol (CAS 57-55-6) Listed.

**US. Rhode Island RTK**

Not regulated.

Country(s) or region	Inventory name	On inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

---

## 16. Other Information

---

**Disclaimer** This product should only be used as directed on the label and for the purpose intended. To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

**Further information** RESOLVE® (SPRAY'N WASH®) Pre-Treat Laundry Stain Remover (Trigger), 22 oz/32 oz/60 oz - 0137240v2.0

**Issue date** 29-August-2013

**Effective date** 31-August-2013

**Prepared by** Reckitt Benckiser Regulatory Department Phone: 800-333-3899

**Other information** For an updated MSDS, please contact the supplier/manufacturer listed on the first page of the document.  
This MSDS conforms to the ANSI Z400.1/Z129.1-2010 Standard.