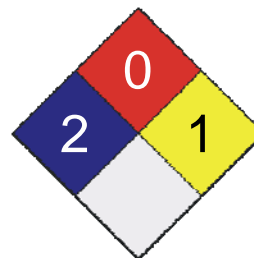


## 1. Product and Company Identification

|                       |   |
|-----------------------|---|
| <b>Product Name</b>   | <b>RESOLVE® Oxi-Action Crystal White (Liquid)</b>   |
| <b>CAS #</b>          | Mixture   |
| <b>Product Use</b>    | Stain remover   |
| <b>Distributed by</b> | Reckitt Benckiser (Canada) Inc.<br>1680 Tech Avenue Unit #2<br>Mississauga, ON L4W 5S9<br>In Case of Emergency: 1-800-338-6167<br>Transportation Emergencies: 24 Hour Number:<br>North America: CHEMTREC: 1-800-424-9300<br>Outside North America: 1-703-527-3887 |

| LEGEND<br>HMIS/NFPA |   |
|---------------------|---|
| Severe              | 4 |
| Serious             | 3 |
| Moderate            | 2 |
| Slight              | 1 |
| Minimal             | 0 |

|                     |     |
|---------------------|-----|
| Health              | / 2 |
| Flammability        | 0   |
| Physical Hazard     | 1   |
| Personal Protection | B   |



## 2. Hazards Identification

|  |   |
|--|---|
| <b>Emergency Overview</b>                  | CAUTION<br>MAY IRRITATE EYES AND SKIN.<br>DO NOT get in eyes, on skin or clothing.<br><br>Keep out of reach of children.  |
| <b>Potential short term health effects</b> |   |
| <b>Routes of exposure</b>                  | Eye, Skin contact, Inhalation, Ingestion.   |
| <b>Eyes</b>                                | May be severe eye irritant (raw materials information).   |
| <b>Skin</b>                                | Skin irritant. (raw materials information).<br>Not expected to be a skin sensitizer.  |
| <b>Inhalation</b>                          | None expected during normal conditions of use.  |
| <b>Ingestion</b>                           | May be harmful by ingestion. (raw materials information).   |
| <b>Target organs</b>                       | Eyes. Respiratory system. Skin.   |
| <b>Chronic effects</b>                     | The finished product is not expected to have chronic health effects.  |
| <b>Signs and symptoms</b>                  | Symptoms may include redness, oedema, drying, defatting and cracking of the skin.<br>Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. |
| <b>Potential environmental effects</b>     | See section 12.   |

## 3. Composition/Information on Ingredients

| Ingredient(s)                             | CAS #      | Percent |
|---|------------|---------|
| Disodium 4,4'-bis(2-sulfostyryl) biphenyl | 27344-41-8 | 0.1 - 1 |
| Sodium hydroxide                          | 1310-73-2  | 1 - 5   |
| Alkylarylsulfonic acid                    | 68584-22-5 | 10 - 30 |
| Alcohols, C12-16, ethoxylated             | 68551-12-2 | 10 - 30 |
| Hydrogen peroxide                         | 7722-84-1  | 3 - 7   |

## 4. First Aid Measures

|                             |   |
|-----------------------------|---|
| <b>First aid procedures</b> |   |
| <b>Eye contact</b>          | If in eyes, remove any contact lenses and continue rinsing eyes for at least 15 minutes. If irritation persists, get medical attention. |

|                           |   |
|---------------------------|---|
| <b>Skin contact</b>       | If on skin, rinse well with water. If irritation persists, get medical attention.   |
| <b>Inhalation</b>         | Move person to fresh air. If the person feels unwell, call a physician or Poison Control Center.  |
| <b>Ingestion</b>          | If swallowed, call a Poison Control Centre or doctor immediately. DO NOT induce vomiting.   |
| <b>Notes to physician</b> | Symptoms may be delayed.  |
| <b>General advice</b>     | 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. |

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## 5. Fire-fighting Measures

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|   |   |
|---|---|
| <b>Flammable properties</b>                       | Not flammable by WHMIS criteria. (based on raw material data)                                   |
| <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 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.   |
| <b>Explosion data</b>                             |   |
| <b>Sensitivity to mechanical impact</b>           | Not available   |
| <b>Sensitivity to static discharge</b>            | Not available   |

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## 6. Accidental Release Measures

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|                                  |   |
|----------------------------------|---|
| <b>Personal precautions</b>      | Avoid contact with eyes.<br>Keep unnecessary personnel away.<br>Do not touch or walk through spilled material.<br>Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.<br>Keep people away from and upwind of spill/leak.  |
| <b>Environmental precautions</b> | Do not discharge into lakes, streams, ponds or public waters.   |
| <b>Methods for containment</b>   | Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas.   |
| <b>Methods for cleaning up</b>   | 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 in original containers for re-use. |

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## 7. Handling and Storage

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|                 |  |
|-----------------|--|
| <b>Handling</b> | Ensure adequate ventilation.<br>Do not get in eyes, on skin or on clothing.<br>When using do not eat or drink.<br>Wash hands before breaks and immediately after handling the product. |
| <b>Storage</b>  | Keep out of reach of children.<br>Store in a closed container away from incompatible materials.<br>Store in a cool dry place inaccessible to children and pets.                        |

## 8. Exposure Controls / Personal Protection

### Exposure limit values

| Ingredient(s)                             | Exposure limit values                |
|---|--------------------------------------|
| Alcohols, C12-16, ethoxylated             | <b>ACGIH-TLV</b><br>Not established  |
| Alkylarylsulfonic acid                    | <b>ACGIH-TLV</b><br>Not established  |
| Disodium 4,4'-bis(2-sulfostyryl) biphenyl | <b>ACGIH-TLV</b><br>Not established  |
| Hydrogen peroxide                         | <b>ACGIH-TLV</b><br>TWA: 1 ppm       |
| Sodium hydroxide                          | <b>ACGIH-TLV</b><br>Ceiling: 2 mg/m3 |

### Engineering controls

General ventilation normally adequate.

### Personal protective equipment

#### Eye/Face protection

Not normally required under normal use conditions.  
When handling in large quantities or responding to emergency situations, the use of appropriate eye protection is recommended.  
Emergency responders should wear full eye and face protection.

#### Hand protection

No special requirements under normal use conditions.  
For sensitive skin or prolonged use, wear rubber gloves.  
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

Not normally required under normal use conditions.  
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             |
| Colour   | Blue              |
| Form   | Liquid            |
| Odour  | Perfume           |
| Odour threshold                                | Not available     |
| Physical state                                 | Liquid            |
| pH   | 3.5 ± 0.3 (as is) |
| Freezing point                                 | Not available     |
| Boiling point                                  | Not available     |
| Pour point                                     | Not available     |
| Evaporation Rate                               | Not available     |
| Flash point                                    | Not available     |
| Auto-ignition temperature                      | Not available     |
| Flammability limits in air, lower, % by volume | Not available     |
| Flammability Limits in Air, Upper, % by Volume | Not available     |
| Vapour pressure                                | Not available     |
| Vapour density                                 | Not available     |

|                                  |   |
|----------------------------------|---|
| <b>Specific gravity</b>          | 1.04 ± 0.005 g/mL   |
| <b>Octanol/water coefficient</b> | Not available   |
| <b>Solubility (H2O)</b>          | High  |
| <b>Viscosity</b>                 | 800 ± 100 cps @ 25°C (Brookfield LV type, Spindle # 31 @ 12rpm) |

## 10. Stability and Reactivity

|   |  |
|---|--|
| <b>Reactivity</b>                         | This product may react with oxidizing agents.  |
| <b>Possibility of hazardous reactions</b> | Hazardous polymerisation 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.<br>Heat (T>50°C), product contamination. |
| <b>Incompatible materials</b>             | Oxidizers. Caustics. Metal ions.   |
| <b>Hazardous decomposition products</b>   | May include and are not limited to: Oxides of carbon.  |

## 11. Toxicological Information

### Component analysis - LC50

| <b>Ingredient(s)</b>                      | <b>LC50</b>     |
|---|-----------------|
| Alcohols, C12-16, ethoxylated             | Not available   |
| Alkylarylsulfonic acid                    | Not available   |
| Disodium 4,4'-bis(2-sulfostyryl) biphenyl | 3.6 mg/l/4h rat |
| Hydrogen peroxide                         | Not available   |
| Sodium hydroxide                          | Not available   |

### Component analysis - Oral LD50

| <b>Ingredient(s)</b>                      | <b>LD50</b>                    |
|---|--------------------------------|
| Alcohols, C12-16, ethoxylated             | 1380 mg/kg rat                 |
| Alkylarylsulfonic acid                    | 530 mg/kg rat                  |
| Disodium 4,4'-bis(2-sulfostyryl) biphenyl | 5580 mg/kg rat                 |
| Hydrogen peroxide                         | 75 mg/kg rat; 2000 mg/kg mouse |
| Sodium hydroxide                          | Not available                  |

### Effects of acute exposure

|                        |  |
|------------------------|--|
| <b>Eye</b>             | May be severe eye irritant (raw materials information).                              |
| <b>Skin</b>            | Skin irritant. (raw materials information).<br>Not expected to be a skin sensitizer. |
| <b>Inhalation</b>      | None expected during normal conditions of use.                                       |
| <b>Ingestion</b>       | May be harmful by ingestion. (raw materials information).                            |
| <b>Sensitisation</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.                 |

#### ACGIH - Threshold Limit Values - Carcinogens

|                   |           |  |
|-------------------|-----------|--|
| Hydrogen peroxide | 7722-84-1 | A3 - Confirmed animal carcinogen with unknown relevance to humans. |
|-------------------|-----------|--|

#### IARC - Group 3 (Not Classifiable)

|                   |           |   |
|-------------------|-----------|---|
| Hydrogen peroxide | 7722-84-1 | Monograph 71 [1999]; Supplement 7 [1987]; Monograph 36 [1985] |
|-------------------|-----------|---|

|   |  |
|---|--|
| <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  |

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## 12. Ecological Information

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|                    |   |
|--------------------|---|
| <b>Ecotoxicity</b> | Contained surfactants are ultimate aerobically biodegradable according to method OECD 301. The liquid contains hydrogen peroxide which decomposes in oxygen and water with no adverse effect. For surfactants with EC 50 < 1mg/l no adverse long-term effects to the aquatic environment are foreseen, due to their biodegradability and non-bioaccumable properties. The product may exhibit acute effects in case of massive discharge in watercourses. |
|--------------------|---|

### Ecotoxicity - Freshwater Algae - Acute Toxicity Data

|   |            |   |
|---|------------|---|
| Disodium 4,4'-bis(2-sulfostyryl) biphenyl | 27344-41-8 | 72 Hr EC50 Desmodesmus subspicatus: 10 mg/L; 96 Hr EC50 Desmodesmus subspicatus: 10.0 - 11.0 mg/L |
| Hydrogen peroxide                         | 7722-84-1  | 72 Hr EC50 Chlorella vulgaris: 2.5 mg/L   |

### Ecotoxicity - Freshwater Fish - Acute Toxicity Data

|   |            |   |
|---|------------|---|
| Alkylarylsulfonic acid                    | 68584-22-5 | 96 Hr LC50 Oncorhynchus mykiss: 3 mg/L [static]   |
| Disodium 4,4'-bis(2-sulfostyryl) biphenyl | 27344-41-8 | 96 Hr LC50 Brachydanio rerio: 76 mg/L [static]  |
| Hydrogen peroxide                         | 7722-84-1  | 96 Hr LC50 Pimephales promelas: 16.4 mg/L; 96 Hr LC50 Lepomis macrochirus: 18-56 mg/L [static]; 96 Hr LC50 Oncorhynchus mykiss: 10.0-32.0 mg/L [static] |
| Sodium hydroxide                          | 1310-73-2  | 96 Hr LC50 Oncorhynchus mykiss: 45.4 mg/L [static]  |

### Ecotoxicity - Water Flea - Acute Toxicity Data

|   |            |   |
|---|------------|---|
| Alkylarylsulfonic acid                    | 68584-22-5 | 48 Hr EC50 Daphnia magna: 2.9 mg/L  |
| Disodium 4,4'-bis(2-sulfostyryl) biphenyl | 27344-41-8 | 48 Hr EC50 Daphnia magna: 1000 mg/L   |
| Hydrogen peroxide                         | 7722-84-1  | 24 Hr EC50 Daphnia magna: 7.7 mg/L; 48 Hr EC50 Daphnia magna: 18 - 32 mg/L [Static] |

|  |               |
|--|---------------|
| <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>           | Not available |
| <b>Chemical fate information</b>       | Not available |
| <b>Other adverse effects</b>           | Not available |

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## 13. Disposal Considerations

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|  |  |
|--|--|
| <b>Disposal instructions</b>                 | Dispose in accordance with all applicable regulations. |
| <b>Waste from residues / unused products</b> | Not available  |
| <b>Contaminated packaging</b>                | Not available  |

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## 14. Transport Information

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|   |                |
|---|----------------|
| <b>UN/ID N.o.</b>   | Not applicable |
| <b>U.S. Department of Transportation (DOT): Classification:</b> Not regulated |                |
| <b>Proper shipping name</b>   | Not applicable |
| <b>U.S. DOT Hazard Class</b>  | Not applicable |
| <b>Subsidiary Risk</b>  | Not applicable |
| <b>Packing group</b>  | Not applicable |
| <b>DOT RQ (lbs)</b>   | Not applicable |
| <b>ERG NO</b>   | 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

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## 15. Regulatory Information

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**Canadian federal regulations**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Product Registration: Product is compliant with CCCR regulatory guidelines; a specific registration is not required for this product.

**Canada - WHMIS - Ingredient Disclosure List**

|   |            |       |
|---|------------|-------|
| Disodium 4,4'-bis(2-sulfostyryl) biphenyl | 27344-41-8 | 0.1 % |
| Hydrogen peroxide                         | 7722-84-1  | 1 %   |
| Sodium hydroxide                          | 1310-73-2  | 1 %   |

**WHMIS classification**

Exempt - Consumer product

**Inventory Status**

| Country(s) or region | Inventory Name                      | On Inventory (Yes/No)* |
|----------------------|-------------------------------------|------------------------|
| Canada               | Domestic Substances List (DSL)      | Yes                    |
| Canada               | Non-Domestic Substances List (NDSL) | No                     |

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

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**16. Other Information**

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**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® Oxi Action Crystal White - Liquid, 650 mL - 0358255v1.0

**Issue date**

18-Jul-2012

**Effective Date**

15-Jul-2012

**Expiry Date**

15-Jul-2015

**Prepared by**

Reckitt Benckiser Regulatory Department 800-333-3899

**Other Information**

For an updated MSDS, please contact the supplier/manufacturer listed on the first page of the document.