SAFETY DATA SHEET
ROYAL BLEND NP AE

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : ROYAL BLEND NP AE
Other means of identification : not applicable
Recommended use : Laundry detergent
Restrictions on use : Reserved for industrial and professional use.
Product dilution information : Product is sold ready to use.
Company : Ecolab Inc.
            370 N. Wabasha Street
            St. Paul, Minnesota USA 55102
            1-800-352-5326
Emergency telephone : 1-800-328-0026 (US/Canada), 1-651-222-5352 (outside US)
Issuing date : 02/14/2014

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Acute toxicity (Oral) : Category 4
Skin corrosion : Category 1A
Serious eye damage : Category 1
Specific target organ systemic toxicity - single exposure : Category 3 (Respiratory system)

GHS Label element
Hazard pictograms : ![Pictogram]

Signal Word : Danger
Hazard Statements : Harmful if swallowed.
                     Causes severe skin burns and eye damage.
                     May cause respiratory irritation.
Precautionary Statements : Prevention:
                            Do not breathe dust or mist. Wash skin thoroughly after handling. Do
                            not eat, drink or smoke when using this product. Use only outdoors or
                            in a well-ventilated area. Wear protective gloves/ protective clothing/
                            eye protection/ face protection.
                            Response:
                            IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you
                            feel unwell. IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
                            IF ON SKIN (or hair): Remove/ Take off immediately all contaminated
                            clothing. Rinse skin with water/ shower. IF INHALED: Remove victim
                            to fresh air and keep at rest in a position comfortable for breathing. IF
                            IN EYES: Rinse cautiously with water for several minutes. Remove
                            contact lenses, if present and easy to do. Continue rinsing.
                            Immediately call a POISON CENTER or doctor/ physician. Wash
contaminated clothing before reuse.

**Storage:**
Store in a well-ventilated place. Keep container tightly closed. Store locked up.

**Disposal:**
Dispose of contents/ container to an approved waste disposal plant.

Other hazards : None known.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

<table>
<thead>
<tr>
<th>Pure substance/mixture</th>
<th>Mixture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical Name</td>
<td>CAS-No.</td>
</tr>
<tr>
<td>sodium carbonate</td>
<td>497-19-8</td>
</tr>
<tr>
<td>sodium metasilicate</td>
<td>6834-92-0</td>
</tr>
<tr>
<td>sodium hydroxide</td>
<td>1310-73-2</td>
</tr>
<tr>
<td>zeolite</td>
<td>1318-02-1</td>
</tr>
<tr>
<td>alcohols, c12-16, ethoxylated</td>
<td>68551-12-2</td>
</tr>
<tr>
<td>sodium dodecylbenzene sulfonate</td>
<td>25155-30-0</td>
</tr>
<tr>
<td>alcohols, c12-15, ethoxylated</td>
<td>68131-39-5</td>
</tr>
</tbody>
</table>

**SECTION 4. FIRST AID MEASURES**

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

In case of skin contact : Wash off immediately with plenty of water for at least 15 minutes. Use a mild soap if available. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

If swallowed : Rinse mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.

If inhaled : Remove to fresh air. Treat symptomatically. Get medical attention.

Protection of first-aiders : If potential for exposure exists refer to Section 8 for specific personal protective equipment.

Notes to physician : Treat symptomatically.

See toxicological information (Section 11)

**SECTION 5. FIRE-FIGHTING MEASURES**

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media : None known.

Specific hazards during firefighting : Not flammable or combustible.

Hazardous combustion products : Carbon oxides
Special protective equipment for fire-fighters: Use personal protective equipment.

Specific extinguishing methods: Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid inhalation, ingestion and contact with skin and eyes. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Ensure clean-up is conducted by trained personnel only. Refer to protective measures listed in sections 7 and 8.

Environmental precautions: Do not allow contact with soil, surface or ground water.

Methods and materials for containment and cleaning up: Stop leak if safe to do so. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Flush away traces with water. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling: Do not ingest. Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. Do not get in eyes, on skin, or on clothing. Wash hands thoroughly after handling. Use only with adequate ventilation.


Storage temperature: 0 °C to 50 °C

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS-No.</th>
<th>Form of exposure</th>
<th>Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>sodium hydroxide</td>
<td>1310-73-2</td>
<td>Ceiling</td>
<td>2 mg/m³</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Ceiling</td>
<td>2 mg/m³</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>2 mg/m³</td>
<td>OSHA Z1</td>
</tr>
</tbody>
</table>

Engineering measures: Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards.

Personal protective equipment

Eye protection: Safety goggles
Face-shield

Hand protection: Wear the following personal protective equipment:
Standard glove type.
Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Skin protection: Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing

Respiratory protection: When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practice. Remove and wash contaminated clothing before re-use. Wash face, hands and any exposed skin thoroughly after handling. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: powder
Color: light brown
Odor: slight
pH: 12.5, 1%
Flash point: not applicable. Does not sustain combustion.
Odor Threshold: no data available
Melting point/freezing point: no data available
Initial boiling point and boiling range: no data available
Evaporation rate: no data available
Flammability (solid, gas): no data available
Upper explosion limit: no data available
Lower explosion limit: no data available
Vapor pressure: no data available
Relative vapor density: no data available
Relative density: 0.935
Water solubility: slightly soluble
Solubility in other solvents: no data available
Partition coefficient: n-octanol/water: no data available
Autoignition temperature: no data available
Thermal decomposition: no data available
Viscosity, kinematic: no data available
Explosive properties: no data available
Oxidizing properties: no data available
Molecular weight: no data available
VOC: no data available

SECTION 10. STABILITY AND REACTIVITY
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Chemical stability : Stable under normal conditions.
Possibility of hazardous reactions : No dangerous reaction known under conditions of normal use.
Conditions to avoid : None known.
Incompatible materials : Acids, Metals
Hazardous decomposition products : Carbon oxides

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure : Inhalation, Eye contact, Skin contact

Potential Health Effects
Eyes : Causes serious eye damage.
Skin : Causes severe skin burns.
Ingestion : Harmful if swallowed. Causes digestive tract burns.
Inhalation : May cause respiratory tract irritation. May cause nose, throat, and lung irritation.

Chronic Exposure : Health injuries are not known or expected under normal use.

Experience with human exposure
Eye contact : Redness, Pain, Corrosion
Skin contact : Redness, Pain, Irritation, Corrosion
Ingestion : Corrosion, Abdominal pain
Inhalation : Respiratory irritation, Cough

Toxicity
Acute oral toxicity : Acute toxicity estimate : 1,281 mg/kg
Acute inhalation toxicity : no data available
Acute dermal toxicity : no data available
Skin corrosion/irritation : no data available
Serious eye damage/eye irritation : no data available
Respiratory or skin sensitization : no data available
Carcinogenicity : no data available
Reproductive effects : no data available
Germ cell mutagenicity : no data available
Teratogenicity: no data available
STOT-single exposure: no data available
STOT-repeated exposure: no data available
Aspiration toxicity: no data available

**Ingredients**

Acute inhalation toxicity:
- sodium carbonate
  - 4 h LC50 rat: 1.15 mg/l
- zeolite
  - 4 h LC50 rat: > 5.3 mg/l

Acute dermal toxicity:
- zeolite
  - LD50 rabbit: > 2,000 mg/kg
- alcohols, c12-16, ethoxylated
  - LD50 rabbit: > 2,000 mg/kg
- alcohols, c12-15, ethoxylated
  - LD50 rat: > 2,000 mg/kg

**SECTION 12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

Environmental Effects: Harmful to aquatic life. Toxic to aquatic life with long lasting effects.

**Product**

Toxicity to fish: no data available
Toxicity to daphnia and other aquatic invertebrates: no data available
Toxicity to algae: no data available

**Ingredients**

Toxicity to fish:
- sodium metasilicate
  - 96 h LC50 Fish: 210 mg/l
- zeolite
  - 96 h LC50 Fish: 1,800 mg/l
- alcohols, c12-16, ethoxylated
  - 96 h LC50 Fish: 1.5 mg/l
- sodium dodecylbenzene sulfonate
  - 96 h LC50: 3.2 mg/l
- alcohols, c12-15, ethoxylated
  - 96 h LC50 Fish: 1.4 mg/l

Toxicity to daphnia and other aquatic invertebrates:
- sodium carbonate
  - 48 h EC50 Daphnia : 200 mg/l
- sodium hydroxide
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48 h EC50: 40 mg/l

**Persistence and degradability**
no data available

**Bioaccumulative potential**
no data available

**Mobility in soil**
no data available

**Other adverse effects**
no data available

### SECTION 13. DISPOSAL CONSIDERATIONS

**Disposal methods**
The product should not be allowed to enter drains, water courses or the soil. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.

**Disposal considerations**
Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

D002 (Corrosive)

### SECTION 14. TRANSPORT INFORMATION

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

**Land transport (DOT)**
- **UN number**: 3262
- **Description of the goods**: Corrosive solid, basic, inorganic, n.o.s. (sodium metasilicate, sodium hydroxide)
- **Class**: 8
- **Packing group**: II
- **Environmentally hazardous**: no

**Sea transport (IMDG/IMO)**
- **UN number**: 3262
- **Description of the goods**: CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (sodium metasilicate, sodium hydroxide)
- **Class**: 8
- **Packing group**: II
- **Marine pollutant**: no

### SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know
CERCLA Reportable Quantity

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS-No.</th>
<th>Component RQ (lbs)</th>
<th>Calculated product RQ (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>sodium hydroxide</td>
<td>1310-73-2</td>
<td>1000</td>
<td>5882</td>
</tr>
</tbody>
</table>

SARA 304 Extremely Hazardous Substances Reportable Quantity
This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards
- Acute Health Hazard

SARA 302
- SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313
- SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

California Prop 65
This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

The ingredients of this product are reported in the following inventories:

1907/2006 (EU) :
not determined

Switzerland. New notified substances and declared preparations :
The mixture contains substances listed on the Swiss Inventory not determined

United States TSCA Inventory :
On TSCA Inventory

Canadian Domestic Substances List (DSL) :
All components of this product are on the Canadian DSL.

Australia Inventory of Chemical Substances (AICS) :
not determined

New Zealand. Inventory of Chemical Substances :
not determined

Japan. ENCS - Existing and New Chemical Substances Inventory :
not determined

Japan. ISHL - Inventory of Chemical Substances (METI) :
not determined

Korea. Korean Existing Chemicals Inventory (KECI) :
On the inventory, or in compliance with the inventory

Philippines Inventory of Chemicals and Chemical Substances (PICCS) :
not determined

China. Inventory of Existing Chemical Substances in China (IECSC) :
not determined
Issuing date: 02/14/2014
Version: 1.3
Prepared by: Regulatory Affairs

REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.