1. Chemical Product and Supplier Identification

**Product Name:** ® Sodium Percarbonate

**Chemical Name:** Sodium Carbonate Peroxyhydrate

**Synonyms:** PCS, Sodium Percarbonate, Sodium Carbonate Peroxide, SPC

**Relevant uses:** Bleaching agent, cleaning agent and oxidizing agent.

**Recommended uses advised against:** Non known

**Registration Number REACH:** Not applicable. The transition time according to REACH regulation, article 23 is not yet expired.

**Product type REACH:** Substance/mono-constituent

**Manufacturer:** Kingsfield Korea Inc.
740-27 Shinhung-Dong
Iksan City, Chun Buk, Korea

**USA Branch:**
Kingsfield Inc./Shangyu Chemical USA
1 Dewolf Rd. Suite 210
Old Tappan, NJ 07675
Tel: 201-767-0414

**Emergency contact information:**
CHEMTREC Customer Service
Tel: 1-800-262-8200 (within the U.S.)
Tel: +1 703-741-5500 (from anywhere in the world)
Email: chemtrec@chemtrec.com

2. Hazards Identification

Classification according to regulation EC No 1272/2008

<table>
<thead>
<tr>
<th>Class</th>
<th>Category</th>
<th>Hazard statements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ox. Sol.</td>
<td>Category 2</td>
<td>H272: May intensify fire; oxidizer.</td>
</tr>
<tr>
<td>Acute Tox.</td>
<td>Category 4</td>
<td>H302: Harmful if swallowed.</td>
</tr>
<tr>
<td>Eye Dam.</td>
<td>Category 1</td>
<td>H318: Causes serious eye damage.</td>
</tr>
</tbody>
</table>

Classifications according to Directive 67/548/EEC-1999/45/EC

**O; R8**- Contact with combustible material may cause fire.

**Xn; R22**- Harmful if swallowed.

**Xi; R41**- Risk of serious damage to eyes.
SAFETY DATA SHEET

Label elements;

Labeling according to Regulation EC No 1272/2008 (CLP)

Signal word: Danger

H-statements

H272 May intensify fire; oxidizer.
H302 Harmful if swallowed.
H318 Causes serious eye damage.

P-statements

P210 Keep away from heat/sparks/open flames/hot surfaces. --No smoking
P280 Wear protective gloves and eye protection/face protection.
P310 Immediately call POISON CENTER or doctor/physician.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P330 Rinse mouth.
P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

Other hazards:

CLP (EU-GHS) Classification, labeling and packaging (Globally Harmonized System in Europe)

Heat may cause pressure rise in tanks/drums: explosion risk
Harmful to fishes
Toxic to invertebrates (Daphnia)

Emergency overview: Toxicity effects principally related to its irritating properties. Does not present any significant hazard for the environment. Supports combustion of other substances (oxidizing product).

Potential Health Effects:

<table>
<thead>
<tr>
<th>General</th>
<th>Irritating to mucous membrane, eyes and skin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>Slight nose and throat irritation. At high concentrations, cough. In case of repeated or prolonged exposure: risk of sore throat, nose bleeds, chronic bronchitis.</td>
</tr>
<tr>
<td>Eye Contact</td>
<td>Severe eye irritation, watering and redness, can cause burns to the eye. Risk of serious or permanent eye lesions.</td>
</tr>
<tr>
<td>Skin Contact</td>
<td>Slight irritation. In case of repeated contact: risk of dermatitis</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Severe irritation of the mouth, throat, esophagus and stomach. Bloating of stomach, belching. Nausea, vomiting and diarrhea.</td>
</tr>
</tbody>
</table>

3. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Components Formula</th>
<th>CAS No</th>
<th>Weight (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Carbonate Peroxyhydrate</td>
<td>15630-89-4</td>
<td>Min. 88</td>
</tr>
<tr>
<td>Sodium Carbonate</td>
<td>497-19-8</td>
<td>Approx. 12.0</td>
</tr>
</tbody>
</table>
4. First-Aid Measures

<table>
<thead>
<tr>
<th>General</th>
<th>Do not dry soiled clothing near an open flame or incandescent heat source.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>Remove the subject from dusty environment. Consult with a physician in case of respiratory symptoms.</td>
</tr>
<tr>
<td>Eye Contact</td>
<td>Flush eyes with running water for 15 minutes, while keeping the eyelids wide open. Consult with an ophthalmologist in all cases.</td>
</tr>
<tr>
<td>Skin Contact</td>
<td>Remove contaminated shoes, socks and clothing; wash the affected skin with running water. Clean clothing. Consult a physician in case of persistent pain or redness.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Consult with a physician in all cases. If the subject is completely conscious, rinse mouth and administer fresh water. Do not induce vomiting. If the subject is unconscious, loosen collar and tight clothing, lay the victim on his/her left side, give nothing by mouth. Keep warm with blanket. Do not induce vomiting.</td>
</tr>
</tbody>
</table>

5. Fire-Fighting Measures

Flash Point: Not applicable

Flammability: Non-flammable

Auto-ignition temperature: Not applicable

Danger of explosion: Non-explosive

Common extinguishing methods: Water

Specific hazards: Oxidizing substance. Oxygen released on exothermic decomposition may support combustion. Pressure burst may occur due to decomposition in confined spaces or containers. Wet product decomposes exothermically and may cause combustion of organic materials.

Fire fighting instructions: Evacuate all non-essential personnel. Personnel should wear normal protective equipment (full bunker gear) and positive pressure self-contained breathing apparatus. Intervention only capable by personnel who are trained and aware of the hazards of the product. If safe to do so, remove unaffected product to a safe area.

6. Accidental Release Measures

Precautions: Observe the protection measures given in sections 5 and 8. Avoid materials and products which are incompatible with the product (see section 10). Avoid direct contact of the product with water.

Cleanup methods: Collect the product with suitable means, shovel or sweep, avoiding dust formation. All receiving equipment should be clean, dry, vented, labeled and made of material that is compatible with the product. Do not return spilled or contaminated material to inventory. Clean the area with large quantities of water. For disposal methods, refer to section 13.

7. Handling and Storage

Handling: Clean and dry process piping and equipment before using this product. Never return unused product to original storage container. Keep away from incompatible products. Containers and equipment used to handle the product should be exclusively for that product. Avoid any contact with water or humidity. For more information, consult the supplier.

Storage: In a dry area. Protect from direct sunlight. Keep away from heat sources. Keep away from reactive products (see section 10). Store in vented containers. Store at temperatures less than 40°C (104°F).
8. **Exposure Controls/Personal Protection**

**Engineering controls**: General room ventilation is required. Local exhaust ventilation, process enclosures or other engineers controls may be needed to maintain airborne levels below recommended exposure limits. Avoid creating dust or mist. Maintain adequate ventilation. Do not use in closed or confined spaces. Keep levels below exposure limits. To determine exposure levels, monitoring should be performed regularly.

**Respiratory Protection**: For many conditions protection may be needed; however, industry or unknown atmospheres or when exposures exceed limit values, wear a NIOSH approved respirator.

**Eye/Face Protection**: Wear chemical safety goggles and full face shield while handling this product.

**Skin Protection**: Prevent contact with this product. Wear gloves and protective clothing depending on condition of use.

**Protective gloves**: chemical resistant (recommended material: PVC, neoprene or rubber).

**Other Protective Equipment**: Eye-wash station, safety shower, impervious clothing, rubber boots.

**General Hygiene Considerations**: Wash with soap and water before meal times and at the end of each work shift. Good manufacturing practices require gross amounts of any chemical be removed from skin as soon as possible, especially before eating or smoking.

9. **Physical and Chemical Properties**

**Appearance**: White granular solid.

**Odor**: None.

**Bulk Density**: 0.9 - 1.2 g/cm³

**Solubility**: 145 g/L @ 20°C

**pH, 3% solution**: Approx. 10.5

**Decomposition Temperature**: Self-accelerating decomposition with oxygen release starting from 50°C.

10. **Stability and Reactivity**

**Stability**: Stable, under certain conditions (see below).

**Conditions to avoid**: Heat / Sources of heat. Moisture.

**Materials to avoid**:

- Water
- Acids
- Bases
- Salts of heavy metals
- Reducing agents
Organic materials
Flammable substances

Hazardous decomposition products: Oxygen.

Other information: Decomposition releases steam / heat.

11. Toxicological Information

Acute toxicity: Oral route - LD50, rat (combined sexes), 1034 mg/kg. Dermal route - LDLo, rabbit, > 2000 mg/kg. Inhalation, LC0, 1 hour, rat, > 4580 mg/m 3.

Toxicity Data: Oral LD50 = 1900-3000 mg/kg(Rat) Dermal LD50 = not available inhalation LC50 = 4.58 mg/L(rat) not listed as carcinogen by OSHA, NTP or IARC

Irritation: Eyes, severe damage. Skin, slightly irritating.

Sensitization: No sensitization was noted when administered as a 75% w/v mixture during induction and as a 25% w/v mixture at challenge.

Comments: Toxic effect linked with irritant properties

12. Ecological Information

Ecotoxicological Information: No data available

Chemical Fate Information: No data available

13. Disposal Considerations

Waste treatment: Dispose of in an approved waste facility operated by an authorized contractor in compliance with federal, state and local regulations.

Packaging treatment: The empty and clean containers are to be recycled or disposed of in conformity with local regulations.

14. Transport Information

D.O.T. Proper Shipping Name: Oxidizing solid, n.o.s., (sodium carbonate peroxyhydrate)

Classification code: O2

UN Number: UN3378

Hazard Class: 5.1

Label(s): 5.1 (Oxidizer)

Packing Group: III
SAFETY DATA SHEET

15. Regulatory Information

| SARA Section | Yes |
| SARA (313) Chemicals | No |
| EPA TSCA Inventory | Appears |
| Canadian WHMIS Classification | C, D2B |
| Canadian DSL | Appears |
| EINECS Inventory | Appears |

REACH registration
The transition time according to REACH Regulation, article 23 is not yet expired.

Volatile organic compounds (VOC) Not applicable

16. Other Information


Labeling established on the basis of the available data.

Labels:

- Oxidizing
- Harmful

R-phrases

08 Contact with combustible material may cause fire
22 Harmful if swallowed
41 Risk of serious damage to eyes

S-phrases

(02) (Keep out of reach of children)
08 Keep container dry
17 Keep away from combustible materials
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
39 Wear eye/face protection
(46) (If swallowed, seek medical advice immediately and show this container or label)

Disclaimer: The data in this Safety Data Sheet is believed to be correct. However, since conditions of use are outside our control it should not taken as a warranty of representation for which Shangyu Jiehua Chemical assumes legal responsibility. This information is provided solely for your consideration, investigation, and verification.

Effective Date: March 1, 2015