1. Product and Company Identification

Material name: POTASSIUM BICARBONATE
CAS #: See section 3
Product code: -
Product use: Not available.
Manufacturer/Supplier
Supplier(Manufacturer): ZHEJIANG DAYANG BIOTECH GROUP CO.,LTD
Address: NO.22 CHAOYANG ROAD, DAYANG, JIANDE, ZHEJIANG, CHINA.
Contact person(E-mail): -
Telephone: +86-571-64156812
Fax: 64156010/6120
Emergency telephone Number: +86-571-64156812

2. Hazards identification

GHS classification
Physical hazards: Not classified
Health hazards: Not classified
Environmental hazards: Not classified
GHS label elements
Hazard Pictograms: No hazard pictogram is used.
Signal word: No signal word is used.
Hazard statement: Not applicable.
Precautionary statement
Prevention: Not applicable.
Response: Not applicable.
Storage: Not applicable.
Disposal: Not applicable.

3. Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS#</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potassium Bicarbonate</td>
<td>298-14-6</td>
<td>99%</td>
</tr>
</tbody>
</table>

4. First Aid Measures

First aid procedures

Eye contact: Wash thoroughly with running water. Get medical advice if irritation develops.
Skin contact: Wash exposed area with soap and water. Get medical advice if irritation develops.
Inhalation: Remove to fresh air. Get medical attention for any breathing difficulty.
Ingestion: If large amounts were swallowed, give water to drink and get medical advice.

Notes to physician: Treat symptoms.

5. Fire Fighting Measure

Flammable properties: This product is non-flammable.
Extinguishing media

Suitable extinguishing media: The product is not combustible. In case of fire in the surroundings: Water spray, foam, CO2, dry powder.

Unsuitable extinguishing media: Not available.

Firefighting equipment/instructions: Use self-contained breathing apparatus and protective clothing to avoid exposure to hydrogen chloride and other fumes.

Hazardous combustion products: May produce oxides of carbon and the contained metal.

6. Accidental Release Measures

Personal precautions: Use personal protective equipment. Avoid breathing dust. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas. For personal protection see section 8.

Environmental precautions: Avoid disposing into drainage/sewer system or directly into the aquatic environment.

Methods for cleaning up: Use mechanical handling equipment. After cleaning, flush away traces with water.

7. Handling and Storage

Handling: Ensure good ventilation/exhaustion at the workplace. Avoid contact with skin and eyes. Avoid inhalation of dust. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. For precautions see section 2.2.

Storage: Keep container tightly closed in a dry and well-ventilated place.

8. Exposure Controls / Personal Protection

Control parameters:

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA: Not Available

EMERGENCY LIMITS:

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>TEEL-1</th>
<th>TEEL-2</th>
<th>TEEL-3</th>
</tr>
</thead>
<tbody>
<tr>
<td>potassium bicarbonate</td>
<td>35 mg/m3</td>
<td>60 mg/m3</td>
<td>500 mg/m3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Original IDLH</th>
<th>Revised IDLH</th>
</tr>
</thead>
<tbody>
<tr>
<td>potassium bicarbonate</td>
<td>Not Available</td>
<td>Not Available</td>
</tr>
</tbody>
</table>

Exposure controls:

Appropriate engineering controls: Use in a well-ventilated area.

Individual protection measures, such as personal protective equipment:

Eye / face protection: Wear safety glasses.

Skin protection: Suitable protective gloves. Glove material butyl-rubber, PVC, Natural rubber (NR), Polychloroprene with natural-latex liner. Material thickness, 0,5 mm. Break through time> 480 min. Glove material, nitrile rubber (Camatril, Tricotril, Dermatril), Fluorinated rubber (Vitoject). Material thickness0,35 - 0,4 mm .Break through time > 480 min. Wear protective clothing.

Respiratory protection: In case of dusts/vapours/aerosols being formed or if the limit values like TLV are exceeded: use respiratory equipment with suitable filter or wear a self contained respiratory apparatus. Note time limit for wearing respiratory protective equipment.
General hygiene considerations

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing.

9. Physical & Chemical Properties

Appearance

- Physical state: Solid
- Form: Crystals
- Color: White
- Odor: Odorless
- Odor threshold: Not available
- pH: 8.2
- Vapor pressure: Not available
- Vapor density: Not available
- Boiling point: Not available
- Melting point/Freezing point: 100 - 120°C (212 - 248F)
- Solubility (water): Very soluble (362 g/L(25 °C))
- Partition coefficient: Not available
- Specific gravity: 2.17
- Relative density: Not available
- Density: 2.17 g/cm³(20 °C)
- Flash point: Not available
- Flammability limits in air, upper, % by volume: Not available
- Flammability limits in air, lower, % by volume: Not available
- Auto-ignition temperature: Not available
- Decomposition temperature: > 100 °C
- VOC: Not available
- Percent volatile: Not available
- Other data: Viscosity: Not available

10. Chemical Stability & Reactivity Information

Reactivity

Reacts with acids.

Chemical stability

Material is stable under normal conditions.

Conditions to avoid

Incompatible materials. Heat, flame, other sources of ignition.

Incompatible materials

Acids.

Hazardous decomposition products

May produce oxides of carbon and the contained metal.

Possibility of hazardous reactions

No dangerous reactions known.

11. Toxicological Information

Toxicokinetics, metabolism and distribution:

Non-human toxicological data: Not available
Information on toxicological effects:

Acute toxicity:
LD50(Oral, Rat): > 2000 mg/kg bw
LD50(Dermal, Rabbit): > 2000 mg/kg bw
LC50(Inhalation, Rat): > 4.88 mg/L air (analytical) 4.5h

Skin corrosion/Irritation: Non irritating.

Serious eye damage/irritation: Non irritating.

Respiratory or skin sensitization: Not classified

Germ cell mutagenicity: Not classified

Carcinogenicity: Not classified

Reproductive toxicity: Not classified

STOT- single exposure: Not classified

STOT-repeated exposure: Not classified

Aspiration hazard: Not classified

12. Ecological Information

Toxicity:

<table>
<thead>
<tr>
<th>Acute toxicity</th>
<th>Time</th>
<th>Species</th>
<th>Method</th>
<th>Evaluation</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50</td>
<td>1300 mg/L</td>
<td>96h</td>
<td>Fish</td>
<td>OECD 203</td>
<td>N/A</td>
</tr>
<tr>
<td>EC50</td>
<td>630 mg/L</td>
<td>48h</td>
<td>Daphnia</td>
<td>OECD 202</td>
<td>N/A</td>
</tr>
<tr>
<td>EC50</td>
<td>N/A</td>
<td>72h</td>
<td>Algae</td>
<td>OECD 201</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Persistence and degradability: Not available.

Bioaccumulative potential: Not available.

Mobility in soil: The product is soluble in water.

Results of PBT&vPvB assessment: Not available.

Other adverse effects: No known significant effects or critical hazards.

13. Disposal Considerations

Disposal instructions
Dispose of contents/container in accordance with local/regional/national/international regulations.

Contaminated packaging
Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport Information

DOT
Basic shipping requirements:
- UN number: Not regulated
- Proper shipping name: Not regulated
- Hazard class: Not regulated
- Packing group: Not regulated
- Environmental hazards: No

IATA
- UN number: Not regulated
- UN proper shipping name: Not regulated
Transport hazard class(es) Not regulated
Packing group Not regulated

IMDG
UN number Not regulated
UN proper shipping name Not regulated
Transport hazard class(es) Not regulated
Packing group Not regulated
Environmental hazards No

15. Regulatory Information
Safety, health and environmental regulations/legislation specific for the substance or mixture:

| Potassium bicarbonate(298-14-6) is found on the following regulatory lists | "US Toxic Substances Control Act (TSCA) - Chemical Substance Inventory" List. |

16. Other Information

HMIS® ratings
Health: 0
Flammability: 1
Physical hazard: 0

NFPA ratings
Health: 0
Flammability: 1
Instability: 0

Disclaimer
The information in the sheet was written based on the best knowledge and experience currently available.

Issue date 03-17-2015