SAFETY DATA SHEET
BOARDWALK OVEN & GRILL CLEANER   20N19             BWK350A
Version 1.1 Revision Date 07/14/2016  Print Date 03/21/2017

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name : Boardwalk Oven & Grill Cleaner      BWK350A
Material number : 1041287 / A06409

Manufacturer or supplier's details
Company : Boardwalk / Essendant Co.
Address : One Parkway North
          Deerfield, IL  60015
Telephone : 844-828-5617

Emergency telephone numbers
For SDS Information : 844-828-5617
For a Medical Emergency : 
For a Transportation Emergency : Chemtel: 1(800)255-3924

Recommended use of the chemical and restrictions on use
Recommended use : Cleaner

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

<table>
<thead>
<tr>
<th>Appearance</th>
<th>Aerosol containing a liquefied gas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour</td>
<td>beige</td>
</tr>
<tr>
<td>Odour</td>
<td>characteristic</td>
</tr>
</tbody>
</table>

GHS Classification
Gases under pressure : Liquefied gas
Skin corrosion : Category 1A
Serious eye damage : Category 1

GHS label elements
Hazard pictograms : 

Signal word : Danger

Hazard statements : H280 Contains gas under pressure; may explode if heated.
      H314 Causes severe skin burns and eye damage.

Precautionary statements : Prevention:
P260 Do not breathe dust or mist.
P264 Wash skin thoroughly after handling.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response:
SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>Concentration [%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>propane</td>
<td>74-98-6</td>
<td>&gt;= 1 - &lt; 5</td>
</tr>
<tr>
<td>butane</td>
<td>106-97-8</td>
<td>&gt;= 1 - &lt; 5</td>
</tr>
<tr>
<td>sodium hydroxide</td>
<td>1310-73-2</td>
<td>&gt;= 1 - &lt; 5</td>
</tr>
<tr>
<td>potassium hydroxide</td>
<td>1310-58-3</td>
<td>&gt;= 1 - &lt; 5</td>
</tr>
<tr>
<td>2-methylpentane-2,4-diol</td>
<td>107-41-5</td>
<td>&gt;= 1 - &lt; 5</td>
</tr>
</tbody>
</table>

The exact percentages of disclosed substances are withheld as trade secrets.

SECTION 4. FIRST AID MEASURES

General advice : Move out of dangerous area. Show this safety data sheet to the doctor in attendance. Do not leave the victim unattended.

If inhaled : Consult a physician after significant exposure. If unconscious place in recovery position and seek medical advice.

In case of skin contact : If skin irritation persists, call a physician. Wash off immediately with plenty of water for at least 15 minutes. If on clothes, remove clothes.

In case of eye contact : Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist. Rinse immediately with plenty of water for at least 15 minutes.
If swallowed: Keep respiratory tract clear. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Take victim immediately to hospital.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media: Dry chemical
Carbon dioxide (CO2)
Foam
Water

Unsuitable extinguishing media: High volume water jet

Specific hazards during firefighting: Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products: Carbon dioxide (CO2)
Carbon monoxide
Smoke

Specific extinguishing methods: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Further information: Standard procedure for chemical fires.

Special protective equipment for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures: Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

Environmental precautions: Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

Methods and materials for containment and cleaning up: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Sweep up or vacuum up spillage and collect in suitable container for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling: Avoid exposure - obtain special instructions before use.
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Do not breathe vapours or spray mist.
Take precautionary measures against static discharges.
Provide sufficient air exchange and/or exhaust in work rooms.
Dispose of rinse water in accordance with local and national regulations.
Always replace cap after use.

Conditions for safe storage  

- BEWARE: Aerosol is pressurized. Keep away from direct sun exposure and temperatures over 50 °C. Do not open by force or throw into fire even after use. Do not spray on flames or red-hot objects.
- Observe label precautions.
- Keep in a dry, cool and well-ventilated place.
- Electrical installations / working materials must comply with the technological safety standards.
- No smoking.

Materials to avoid  
Store and keep away from, oxidizing agents and acids.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>propane</td>
<td>74-98-6</td>
<td>TWA</td>
<td>1,000 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>1,000 ppm 1,800 mg/m3</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>1,000 ppm 1,800 mg/m3</td>
<td>OSHA Z-1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>1,000 ppm 1,800 mg/m3</td>
<td>OSHA P0</td>
</tr>
<tr>
<td>butane</td>
<td>106-97-8</td>
<td>TWA</td>
<td>800 ppm 1,900 mg/m3</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>800 ppm 1,900 mg/m3</td>
<td>OSHA P0</td>
</tr>
<tr>
<td>sodium hydroxide</td>
<td>1310-73-2</td>
<td>C</td>
<td>2 mg/m3</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C</td>
<td>2 mg/m3</td>
<td>NIOSH REL</td>
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<td></td>
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<td>2 mg/m3</td>
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</tr>
<tr>
<td>potassium hydroxide</td>
<td>1310-58-3</td>
<td>C</td>
<td>2 mg/m3</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C</td>
<td>2 mg/m3</td>
<td>NIOSH REL</td>
</tr>
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<td></td>
<td></td>
<td>C</td>
<td>2 mg/m3</td>
<td>OSHA P0</td>
</tr>
<tr>
<td>2-methylpentane-2,4-diol</td>
<td>107-41-5</td>
<td>C</td>
<td>25 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C</td>
<td>25 ppm 125 mg/m3</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>C</td>
<td>25 ppm 125 mg/m3</td>
<td>OSHA P0</td>
</tr>
</tbody>
</table>

Engineering measures  
effective ventilation in all processing areas
### Personal protective equipment

**Respiratory protection**
- Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.

**Hand protection**
- Remarks: The suitability for a specific workplace should be discussed with the producers of the protective gloves.

**Eye protection**
- Ensure that eyewash stations and safety showers are close to the workstation location.
- Tightly fitting safety goggles

**Skin and body protection**
- Impervious clothing
- Choose body protection according to the amount and concentration of the dangerous substance at the work place.

**Hygiene measures**
- When using do not eat or drink.
- When using do not smoke.
- Wash hands before breaks and at the end of workday.

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- **Appearance**: Aerosol containing a liquefied gas
- **Colour**: beige
- **Odour**: characteristic
- **Odour Threshold**: No data available
- **pH**: > 14
- **Melting point/freezing point**: No data available
- **Boiling point**: No data available
- **Flash point**: No data available
- **Evaporation rate**: No data available
- **Flammability (solid, gas)**: The product is not flammable
- **Upper explosion limit**: No data available
- **Lower explosion limit**: No data available
- **Vapour pressure**: No data available
- **Relative vapour density**: No data available
- **Density**: No data available
- **Solubility(ies)**
  - Water solubility: No data available
- **Partition coefficient: n-octanol/water**: No data available
- **Auto-ignition temperature**: Not determined
Thermal decomposition : No data available
Heat of combustion : 4.41 kJ/g

SECTION 10. STABILITY AND REACTIVITY

Reactivity : Stable
Chemical stability : Stable under normal conditions.
Possibility of hazardous reactions : No decomposition if stored and applied as directed.
Vapours may form explosive mixture with air.
Conditions to avoid : Heat, flames and sparks.
Extremes of temperature and direct sunlight.
Incompatible materials : Strong acids and oxidizing agents
Hazardous decomposition products : Carbon oxides

SECTION 11. TOXICOLOGICAL INFORMATION

Potential Health Effects

Carcinogenicity:

IARC
No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH
No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

OSHA
No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP
No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Acute toxicity

Product:
Acute oral toxicity : Acute toxicity estimate : 4,768 mg/kg
Method: Calculation method

Components:
propane:
Acute inhalation toxicity : LC50 Mouse: 1,237 mg/l
Exposure time: 2 h
LC50 Rat: 658 mg/l
Exposure time: 4 h

LC50 Rat: 1,355 mg/l

butane:
Acute inhalation toxicity : LC50 Mouse: 1,237 mg/l
Exposure time: 2 h

LC50 Rat: 1,355 mg/l

sodium hydroxide:
Acute dermal toxicity : Acute toxicity estimate Rabbit: 1,350 mg/kg

2-methylpentane-2,4-diol:
Acute oral toxicity : LD50 Oral Rat: 3,700 mg/kg

Skin corrosion/irritation

Product:
Remarks: Extremely corrosive and destructive to tissue.

Serious eye damage/eye irritation

Product:
Remarks: May cause irreversible eye damage.

Respiratory or skin sensitisation
No data available

Germ cell mutagenicity
No data available

Carcinogenicity
No data available

Reproductive toxicity
No data available

propane:
butane:
sodium hydroxide:
potassium hydroxide:
2-methylpentane-2,4-diol:

STOT - single exposure
No data available

STOT - repeated exposure
No data available

Aspiration toxicity
No data available
Further information

**Product:**
Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

No data available

**Persistence and degradability**

No data available

**Bioaccumulative potential**

**Product:**
Partition coefficient: n-octanol/water  : Remarks: No data available

**Components:**
butane :
Partition coefficient: n-octanol/water  : Pow: 2.89
2-methylpentane-2,4-diol :
Partition coefficient: n-octanol/water  : Pow: 0.58

**Mobility in soil**

No data available

**Other adverse effects**

No data available

**Product:**
Regulation 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information  : No data available

SECTION 13. DISPOSAL CONSIDERATIONS

**Disposal methods**

Waste from residues  : Dispose of in accordance with local regulations.
Contaminated packaging  : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.
Do not burn, or use a cutting torch on, the empty drum.

SECTION 14. TRANSPORT INFORMATION

Transportation Regulation: 49 CFR (USA):
ORM-D, CONSUMER COMMODITY

Transportation Regulation: IMDG (Vessel):
UN1950, AEROSOLS, 2.2, - Limited quantity

Transportation Regulation: IATA (Cargo Air):
UN1950, AEROSOLS, 2.2, - Limited quantity

Transportation Regulation: IATA (Passenger Air):
UN1950, AEROSOLS, 2.2, - Limited quantity

Transportation Regulation: TDG (Canada):
UN1950, AEROSOLS, 2.2, - Limited quantity

The product as delivered to the customer conforms to packaging requirements for shipment by road under US Department of Transportation (DOT) regulations. Additional transportation classifications noted above are for reference only, and not a certification or warranty of the suitability of the packaging for shipment under these alternative transport regulations.

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

<table>
<thead>
<tr>
<th>Components</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>*</td>
</tr>
</tbody>
</table>

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards: Sudden Release of Pressure Hazard
Acute Health Hazard

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

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 State of California to cause cancer, birth defects, or any other reproductive harm.

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

DSL

This product contains one or several components that are not on the Canadian DSL nor NDSL.

For information on the country notification status for other regions please contact the manufacturer’s regulatory group.

Inventory Acronym and Validity Area Legend:
TSCA (USA), DSL (Canada), NDSL (Canada)

SECTION 16. OTHER INFORMATION

Further information

NFPA:

<table>
<thead>
<tr>
<th>Flammability</th>
<th>Health</th>
<th>Instability</th>
<th>Special hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

HMIS III:

<table>
<thead>
<tr>
<th>HEALTH</th>
<th>FLAMMABILITY</th>
<th>PHYSICAL HAZARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

0 = not significant, 1 = Slight, 2 = Moderate, 3 = High, 4 = Extreme, * = Chronic

OSHA GHS Label Information:

Hazard pictograms:

Signal word: Danger

Hazard statements:
Contains gas under pressure; may explode if heated. Causes severe skin burns and eye damage.

Precautionary statements:
Prevention: Do not breathe dust or mist. Wash skin thoroughly after handling. Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response: 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. Immediately call a POISON CENTER or doctor/ physician. 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/doctor. Wash contaminated clothing before reuse.
Storage: Store locked up. Protect from sunlight. Store in a well-ventilated place.
Disposal: Dispose of contents/container in accordance with local regulation.
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