

Safety Data Sheet
acc. to OSHA HCS

Printing date 05/24/2016

Reviewed on 04/19/2016

1 Identification

- **Product identifier** Heavy Duty Caustic Cleaner
- **Trade name:** **BrewCaustic CLEANER**
- **Article number:** BDN101B
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
ZEE COMPANY, INC.
4146 South Creek Road
Chattanooga, TN 37406
- **Information department:** Technical Services: 423-698-1401
- **Emergency telephone number:** CHEMTREC: 800-424-9300

2 Hazard(s) identification

- **Classification of the substance or mixture**



Corrosion

Skin Corr. 1A H314 Causes severe skin burns and eye damage.
Eye Dam. 1 H318 Causes serious eye damage.

- **Label elements**

- **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS05

- **Signal word** Danger

- **Hazard-determining components of labeling:**

sodium hydroxide
potassium hydroxide
tetrasodium ethylenediaminetetraacetate

- **Hazard statements**

Causes severe skin burns and eye damage.

- **Precautionary statements**

Do not breathe dusts or mists.
Wear eye protection / face protection.
Wash thoroughly after handling.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

(Contd. on page 2)

Safety Data Sheet

acc. to OSHA HCS

Printing date 05/24/2016

Reviewed on 04/19/2016

Trade name: **BrewCaustic CLEANER**

(Contd. of page 1)

Immediately call a POISON CENTER/doctor.

Specific treatment (see on this label).

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Wash contaminated clothing before reuse.

If swallowed: Rinse mouth. Do NOT induce vomiting.

Store locked up.

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

- **Classification system:**

- **NFPA ratings (scale 0 - 4)**



Health = 2

Fire = 0

Reactivity = 0

- **HMIS-ratings (scale 0 - 4)**



HEALTH 2 Health = 2

FIRE 0 Fire = 0

REACTIVITY 0 Reactivity = 0

- **Other hazards**

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**

- **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**

| | | |
|-----------|---|--------|
| 1310-73-2 | sodium hydroxide | 25-35% |
| 1310-58-3 | potassium hydroxide | ≤ 2,5% |
| 64-02-8 | tetrasodium ethylenediaminetetraacetate | ≤ 2,5% |

4 First-aid measures

- **Description of first aid measures**

- **General information:** Immediately remove any clothing soiled by the product.

- **After inhalation:**

Remove to fresh air. If symptoms persist consult a doctor.

In case of unconsciousness, immediately seek medical attention.

- **After skin contact:**

Remove contaminated clothing and flush area with running water for a minimum of 15 minutes. If irritation persists consult a doctor.

- **After eye contact:**

Immediately flush open eye with running water for a minimum of 15 minutes. Immediately get medical attention.

- **After swallowing:**

Immediately contact a doctor or Poison Control Center.

Do not induce vomiting. Rinse mouth out with water, and drink several glasses of water. Never give anything by mouth to an unconscious person.

(Contd. on page 3)

-US-

Safety Data Sheet

acc. to OSHA HCS

Printing date 05/24/2016

Reviewed on 04/19/2016

Trade name: BrewCaustic CLEANER

(Contd. of page 2)

- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**
Do not allow to penetrate the ground/soil.
Do not allow to enter surface or ground water.
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralizing agent.
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Keep this and all chemicals out of the reach of children.
Store in a cool, dry, well ventilated area.
- **Information about storage in one common storage facility:** Store away from acidic materials.
- **Further information about storage conditions:** Keep receptacle tightly sealed.

(Contd. on page 4)

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 05/24/2016

Reviewed on 04/19/2016

Trade name: **BrewCaustic CLEANER**

(Contd. of page 3)

- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

1310-73-2 sodium hydroxide

| | |
|-----|--|
| PEL | Long-term value: 2 mg/m ³ |
| REL | Ceiling limit value: 2 mg/m ³ |
| TLV | Ceiling limit value: 2 mg/m ³ |

1310-58-3 potassium hydroxide

| | |
|-----|--|
| REL | Ceiling limit value: 2 mg/m ³ |
| TLV | Ceiling limit value: 2 mg/m ³ |

- **Additional information:** The lists that were valid during the creation were used as basis.

- **Exposure controls**

- **Personal protective equipment:**

- **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.

- **Breathing equipment:** Not necessary if room is well-ventilated.

- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**



Tightly sealed goggles

(Contd. on page 5)

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 05/24/2016

Reviewed on 04/19/2016

Trade name: BrewCaustic CLEANER

(Contd. of page 4)

· **Body protection:** Protective work clothing

9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information

· Appearance:

| | |
|-------------------|-----------------|
| Form: | Liquid |
| Color: | Dark brown |
| · Odor: | Mild |
| · Odor threshold: | Not determined. |

| | |
|------------------------------|-------|
| · pH-value at 20 °C (68 °F): | >12.5 |
|------------------------------|-------|

· Change in condition

| | |
|------------------------------|---------------|
| Melting point/Melting range: | Undetermined. |
| Boiling point/Boiling range: | Undetermined. |

| | |
|----------------|-----------------|
| · Flash point: | Not applicable. |
|----------------|-----------------|

| | |
|----------------------------------|-----------------|
| · Flammability (solid, gaseous): | Not applicable. |
|----------------------------------|-----------------|

· Ignition temperature:

| | |
|----------------------------|-----------------|
| Decomposition temperature: | Not determined. |
|----------------------------|-----------------|

| | |
|------------------|------------------------------|
| · Auto igniting: | Product is not selfigniting. |
|------------------|------------------------------|

| | |
|------------------------|---|
| · Danger of explosion: | Product does not present an explosion hazard. |
|------------------------|---|

· Explosion limits:

| | |
|--------|-----------------|
| Lower: | Not determined. |
| Upper: | Not determined. |

| | |
|-------------------|-----------------|
| · Vapor pressure: | Not determined. |
|-------------------|-----------------|

| | |
|-----------------------------|---|
| · Density at 20 °C (68 °F): | 1.35 g/cm ³ (11.266 lbs/gal) |
|-----------------------------|---|

| | |
|--------------------|-----------------|
| · Relative density | Not determined. |
|--------------------|-----------------|

| | |
|-----------------|-----------------|
| · Vapor density | Not determined. |
|-----------------|-----------------|

| | |
|--------------------|-----------------|
| · Evaporation rate | Not determined. |
|--------------------|-----------------|

· Solubility in / Miscibility with

| | |
|--------|-----------------|
| Water: | Fully miscible. |
|--------|-----------------|

| | |
|--|-----------------|
| · Partition coefficient (n-octanol/water): | Not determined. |
|--|-----------------|

· Viscosity:

| | |
|------------|-----------------|
| Dynamic: | Not determined. |
| Kinematic: | Not determined. |

| | |
|---------------------|--|
| · Other information | No further relevant information available. |
|---------------------|--|

10 Stability and reactivity

| | |
|---------------------|--|
| · Reactivity | No further relevant information available. |
|---------------------|--|

| | |
|-----------------------------|--------|
| · Chemical stability | Stable |
|-----------------------------|--------|

· Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

| | |
|---|--------------------------------|
| · Possibility of hazardous reactions | Exothermic reaction with acids |
|---|--------------------------------|

(Contd. on page 6)

Safety Data Sheet

acc. to OSHA HCS

Printing date 05/24/2016

Reviewed on 04/19/2016

Trade name: BrewCaustic CLEANER

(Contd. of page 5)

- **Conditions to avoid** Do not mix with acids.
- **Incompatible materials:** Acids
- **Hazardous decomposition products:** Oxides of nitrogen and carbon

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

1310-73-2 sodium hydroxide

| | | |
|------|------|------------------|
| Oral | LD50 | 2000 mg/kg (rat) |
|------|------|------------------|

1310-58-3 potassium hydroxide

| | | |
|------|------|-----------------|
| Oral | LD50 | 273 mg/kg (rat) |
|------|------|-----------------|

- **Primary irritant effect:**
- **on the skin:** Strong caustic effect on skin and mucous membranes.
- **on the eye:** Strong caustic effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Corrosive
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

| |
|------------------------------------|
| None of the ingredients is listed. |
|------------------------------------|

- **NTP (National Toxicology Program)**

| |
|------------------------------------|
| None of the ingredients is listed. |
|------------------------------------|

- **OSHA-Ca (Occupational Safety & Health Administration)**

| |
|------------------------------------|
| None of the ingredients is listed. |
|------------------------------------|

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Must not reach bodies of water or drainage ditch undiluted or unneutralized.

(Contd. on page 7)

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 05/24/2016

Reviewed on 04/19/2016

Trade name: BrewCaustic CLEANER

(Contd. of page 6)



Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:** Dispose of in accordance with federal, state, and local regulations.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

| | |
|--|---|
| <ul style="list-style-type: none"> • UN-Number • DOT, IMDG, IATA | UN1760 |
| <ul style="list-style-type: none"> • UN proper shipping name • DOT, IMDG, IATA | Corrosive liquids, n.o.s. (Sodium hydroxide, Potassium hydroxide) |
| <ul style="list-style-type: none"> • Transport hazard class(es) • DOT | |
|  | |
| <ul style="list-style-type: none"> • Class • Label • Class • Label | 8 Corrosive substances 8 8 Corrosive substances 8 |
| <ul style="list-style-type: none"> • IMDG, IATA | |
|  | |
| <ul style="list-style-type: none"> • Class • Label | 8 Corrosive substances 8 |
| <ul style="list-style-type: none"> • Packing group • DOT, IMDG, IATA | II |
| <ul style="list-style-type: none"> • Environmental hazards: • Marine pollutant: | No |
| <ul style="list-style-type: none"> • Special precautions for user | Warning: Corrosive substances |

(Contd. on page 8)

Safety Data Sheet

acc. to OSHA HCS

Printing date 05/24/2016

Reviewed on 04/19/2016

Trade name: BrewCaustic CLEANER

(Contd. of page 7)

| | |
|--|---|
| · Danger code (Kemler): | 80 |
| · EMS Number: | F-A,S-B |
| · Segregation groups | Alkalis |
| · Stowage Category | B |
| · Stowage Code | SW2 Clear of living quarters. |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| · Transport/Additional information: | |
| · DOT | |
| · Quantity limitations | On passenger aircraft/rail: 1 L On cargo aircraft only: 30 L |
| · IMDG | |
| · Limited quantities (LQ) | 1L |
| · Excepted quantities (EQ) | Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml |
| · UN "Model Regulation": | UN 1760 CORROSIVE LIQUIDS, N.O.S. (SODIUM HYDROXIDE, POTASSIUM HYDROXIDE), 8, II |

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

· Section 355 (extremely hazardous substances):

None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

· TSCA (Toxic Substances Control Act):

All ingredients are listed.

· Proposition 65

· Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

· Carcinogenic categories

· EPA (Environmental Protection Agency)

None of the ingredients is listed.

· TLV (Threshold Limit Value established by ACGIH)

None of the ingredients is listed.

(Contd. on page 9)

Safety Data Sheet

acc. to OSHA HCS

Printing date 05/24/2016

Reviewed on 04/19/2016

Trade name: BrewCaustic CLEANER

(Contd. of page 8)

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

· GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms


GHS05

· Signal word Danger
· Hazard-determining components of labeling:

sodium hydroxide
 potassium hydroxide
 tetrasodium ethylenediaminetetraacetate

· Hazard statements

Causes severe skin burns and eye damage.

· Precautionary statements

Keep out of reach of children.
 Do not breathe dusts or mists.
 Wear eye protection / face protection.
 Wash thoroughly after handling.
 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 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.
 Specific treatment (see on this label).
 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 Wash contaminated clothing before reuse.
 If swallowed: Rinse mouth. Do NOT induce vomiting.
 Store locked up.
 Dispose of contents/container in accordance with local/regional/national/international regulations.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Contact: Jim Faller/Keith Seyfried

· Date of preparation / last revision 05/24/2016 / 2

· Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 IMDG: International Maritime Code for Dangerous Goods
 DOT: US Department of Transportation
 IATA: International Air Transport Association
 ACGIH: American Conference of Governmental Industrial Hygienists
 EINECS: European Inventory of Existing Commercial Chemical Substances
 ELINCS: European List of Notified Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 NFPA: National Fire Protection Association (USA)
 HMIS: Hazardous Materials Identification System (USA)
 VOC: Volatile Organic Compounds (USA, EU)
 LC50: Lethal concentration, 50 percent

(Contd. on page 10)

Safety Data Sheet

acc. to OSHA HCS

Printing date 05/24/2016

Reviewed on 04/19/2016

Trade name: BrewCaustic CLEANER

(Contd. of page 9)

LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A
Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1

· * **Data compared to the previous version altered.**

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