

SAFETY DATA SHEET



QUORUM GREEN

Section 1. Chemical product and company identification

Product name : QUORUM GREEN
Recommended use and restrictions : Sanitizer.
Use only for the purpose on the product label.

Product dilution information : Not applicable

Supplier's information : Ecolab Inc. Food & Beverage Division
370 N. Wabasha Street
St. Paul, MN 55102
1-800-392-3392

Code : 986364-02

Date of issue : 08 Jan 2014

EPA Registration No. : 1677-144

EMERGENCY HEALTH INFORMATION: 1-800-328-0026
Outside United States and Canada CALL 1-651-222-5352 (in USA)

Section 2. Hazards identification

GHS Classification : **Product AS SOLD**
ACUTE TOXICITY: ORAL - Category 4
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION -
Category 2B

GHS label elements

Signal word : Warning

Symbol :



Hazard statements : Harmful if swallowed.
Causes skin and eye irritation.

Precautionary statements

Prevention : Wash hands thoroughly after handling. Mixing this product with acid or ammonia releases chlorine gas.

Response : IF SWALLOWED: Call a POISON CENTER or physician if you feel unwell. Rinse mouth. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

Storage :

Product AT USE DILUTION

Data not available - Refer to Product AS SOLD

Section 2. Hazards identification

No other specific measures identified.

Disposal : See section 13 for waste disposal information.

Other hazards : None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Product AS SOLD

| Hazardous ingredients | Concentration Range (%) | CAS number |
|-----------------------|-------------------------|------------|
| sodium hypochlorite | 5.25 | 7681-52-9 |
| SODIUM HYDROXIDE | <1 | 1310-73-2 |

Product AT USE DILUTION

| Hazardous ingredients | Concentration Range (%) | CAS number |
|---|-------------------------|------------|
| Data not available - Refer to Product AS SOLD | | |

Section 4. First aid measures

| | Product AS SOLD | Product AT USE DILUTION |
|-----------------------------------|--|---|
| Eye contact | : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation persists. | Data not available - Refer to Product AS SOLD |
| Skin contact | : Take off contaminated clothing. Wash with plenty of soap and water. Get medical attention if irritation persists. Wash clothing before reuse. Clean shoes thoroughly before reuse. | Data not available - Refer to Product AS SOLD |
| Inhalation | : No special measures required. Treat symptomatically. | Data not available - Refer to Product AS SOLD |
| Ingestion | : Get medical attention if you feel unwell. Rinse mouth. | Data not available - Refer to Product AS SOLD |
| Protection of first-aiders | : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. | |
| Notes to physician | : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. | |

See toxicological information (section 11)

Section 5. Fire-fighting measures

Product AS SOLD

| | |
|---|---|
| Suitable fire extinguishing media | : Use water spray, fog or foam. |
| Specific hazards arising from the chemical | : In a fire or if heated, a pressure increase will occur and the container may burst. |
| Hazardous thermal decomposition products | : Decomposition products may include the following materials: halogenated compounds metal oxide/oxides |
| Specific fire-fighting methods | : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. |

Section 5. Fire-fighting measures

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions : Use personal protective equipment as required.

Environmental precautions : Avoid contact of large amounts of spilled material and runoff with soil and surface waterways.

Methods for cleaning up : Use a water rinse for final clean-up.

Product AT USE DILUTION
Data not available - Refer to Product AS SOLD

Section 7. Handling and storage

Handling : Do not ingest. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Mixing this product with acid or ammonia releases chlorine gas. Use only with adequate ventilation. Wash thoroughly after handling.

Storage : Keep out of reach of children. Keep container tightly closed.

Store between the following temperatures: -10 and 40°C

Product AT USE DILUTION
Data not available - Refer to Product AS SOLD

Section 8. Exposure controls/personal protection

Control parameters

| Ingredient name | Exposure limits |
|---|--|
| sodium hypochlorite SODIUM HYDROXIDE chlorine | AIHA WEEL (United States, 10/2011). STEL: 2 mg/m ³ 15 minutes. ACGIH TLV (United States, 3/2012). C: 2 mg/m ³ OSHA PEL (United States, 6/2010). TWA: 2 mg/m ³ 8 hours. NIOSH REL (United States, 6/2009). CEIL: 2 mg/m ³ ACGIH TLV (United States, 3/2012). STEL: 2.9 mg/m ³ 15 minutes. STEL: 1 ppm 15 minutes. TWA: 1.5 mg/m ³ 8 hours. TWA: 0.5 ppm 8 hours. OSHA PEL (United States, 6/2010). CEIL: 3 mg/m ³ CEIL: 1 ppm NIOSH REL (United States, 6/2009). CEIL: 0.5 ppm 15 minutes. CEIL: 1.45 mg/m ³ 15 minutes. |

Section 8. Exposure controls/personal protection

| | Product AS SOLD | Product AT USE DILUTION |
|---|--|---|
| Appropriate engineering controls | : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. | Data not available - Refer to Product AS SOLD |
| Personal protection | | |
| Eye protection | : No protective equipment is needed under normal use conditions. | |
| Hand protection | : No protective equipment is needed under normal use conditions. | |
| Skin protection | : No protective equipment is needed under normal use conditions. | |
| Respiratory protection | : A respirator is not needed under normal and intended conditions of product use. | |
| Hygiene measures | : 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. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. | |

Section 9. Physical and chemical properties

| | Product AS SOLD | Product AT USE DILUTION |
|---|--|---|
| Physical state | : Liquid. | Data not available - Refer to Product AS SOLD |
| Color | : Yellowish [Light] | |
| Odor | : chlorine | |
| pH | : 12.4 to 13.2 (100%) | |
| Flash point | : > 100°C Product does not support combustion. | |
| Explosion limits | : Not available. | |
| Flammability (solid, gas) | : Not available. | |
| Melting point | : Not available. | |
| Boiling point | : >100°C (>212°F) | |
| Evaporation rate (butyl acetate = 1) | : Not available. | |
| Vapor pressure | : Not available. | |
| Vapor density | : Not available. | |
| Relative density | : 1.092 (Water = 1) | |
| Solubility | : Easily soluble in the following materials: cold water and hot water. | |
| Partition coefficient: n-octanol/water | : Not available. | |
| Auto-ignition temperature | : Not available. | |
| Decomposition temperature | : Not available. | |
| Odor threshold | : Not available. | |

Section 9. Physical and chemical properties

Viscosity : Kinematic (room temperature): 0 cm²/s (0 cSt)

Section 10. Stability and reactivity

Product AS SOLD

- Stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid** : No specific data.
- Materials to avoid** : Slightly reactive or incompatible with the following materials: metals and acids. Mixing this product with acid or ammonia releases chlorine gas.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Route of exposure : Skin contact, Eye contact, Inhalation, Ingestion

Product AS SOLD

Symptoms

- Eye contact** : Adverse symptoms may include the following:
irritation
watering
redness
- Skin contact** : Adverse symptoms may include the following:
irritation
redness
- Inhalation** : No specific data.

Ingestion : No specific data.

Acute toxicity

- Eye contact** : Causes eye irritation.
- Skin contact** : Causes skin irritation.
- Inhalation** : No known significant effects or critical hazards.
- Ingestion** : Harmful if swallowed.

Product AT USE DILUTION

Data not available - Refer to Product AS SOLD

Toxicity data

Product/ingredient name
sodium hypochlorite

| | | |
|-------------|--------|--------------|
| LD50 Dermal | Rabbit | >10000 mg/kg |
| LD50 Oral | Rat | 5230 mg/kg |

Chronic toxicity

- Carcinogenicity** : No known significant effects or critical hazards.
- Mutagenicity** : No known significant effects or critical hazards.
- Teratogenicity** : No known significant effects or critical hazards.
- Developmental effects** : No known significant effects or critical hazards.
- Fertility effects** : No known significant effects or critical hazards.

Section 12. Ecological information

Product AS SOLD

Ecotoxicity : This material is very toxic to aquatic life.

Aquatic and terrestrial toxicity

| Product/ingredient name | Result | Species | Exposure |
|-------------------------|--------|---------|----------|
| Not available. | | | |

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

Section 13. Disposal considerations

Disposal methods : **Product AS SOLD**
 : Avoid disposal. Attempt to use product completely in accordance with intended use. Disposal should be in accordance with applicable regional, national and local laws and regulations.

RCRA classification : Unused product is D002 (Corrosive)

Product AT USE DILUTION
 Data not available - Refer to Product AS SOLD

Section 14. Transport information

Certain shipping modes or package sizes may have exceptions from the transport regulations. The classification provided may not reflect those exceptions and may not apply to all shipping modes or package sizes.

DOT

DOT Classification UN1791
DOT Proper shipping name Hypochlorite solutions
Class 8
Packing group III

IMO/IMDG

IMO/IMDG Classification UN1791
IMO/IMDG Proper shipping name HYPOCHLORITE SOLUTION.
Class 8
Packing group III

For transport in bulk, see shipping documents for specific transportation information.

Product AT USE DILUTION
 Not intended for transport.

Section 15. Regulatory information

Product AS SOLD

U.S. Federal regulations

TSCA 8(b) inventory : All components are listed or exempted.
EPA Registration No. : 1677-144
SARA 302/304/311/312 extremely hazardous substances: No listed substance
SARA 302/304 emergency planning and notification: No listed substance

| <u>SARA 313</u> | <u>Product name</u> | <u>CAS number</u> | <u>Concentration</u> |
|--|-----------------------|-------------------|----------------------|
| Form R - Reporting requirements | : No listed substance | | |

California Prop. 65 : No listed substance

Section 16. Other information

Product AS SOLD

Hazardous Material Information System (U.S.A.) :

| | |
|------------------|---|
| Health | 2 |
| Flammability | 0 |
| Physical hazards | 0 |
| | |

National Fire Protection Association (U.S.A.) :



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 1-800-352-5326

Notice to reader

The above information is believed to be correct with respect to the formula used to manufacture the product in the country of origin. As data, standards, and regulations change, and conditions of use and handling are beyond our control, NO WARRANTY, EXPRESS OR IMPLIED, IS MADE AS TO THE COMPLETENESS OR CONTINUING ACCURACY OF THIS INFORMATION.