

Section 1. Chemical product and company identification

Product name : QUORUM AMBER
Recommended use and restrictions : Surface cleaner
 Use only for the purpose on the product label.

Product dilution information : Up to 5 oz/gal or 39 mL/L in water



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

Code : 988774

Date of issue : 16 Oct 2013

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

Section 2. Hazards identification

	Product AS SOLD	Product AT USE DILUTION
GHS Classification	: SKIN CORROSION/IRRITATION - Category 1 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1	SKIN CORROSION/IRRITATION - Category 1 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
GHS label elements		
Signal word	: Danger	Danger
Symbol	: 	
Hazard statements	: Causes severe skin burns and eye damage.	Causes severe skin burns and eye damage.
Precautionary statements		
Prevention	: Wear protective gloves. Wear eye or face protection. Wear protective clothing. Wash hands thoroughly after handling. Mixing this product with acid or ammonia releases chlorine gas.	Wear protective gloves. Wear eye or face protection. Wear protective clothing. Wash hands thoroughly after handling.
Response	: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or physician. IF SWALLOWED: Immediately call a POISON CENTER or physician. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or physician. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or physician. IF SWALLOWED: Immediately call a POISON CENTER or physician. Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or physician. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact

Section 2. Hazards identification

	do. Continue rinsing. Immediately call a POISON CENTER or physician.	lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.
Storage	: No other specific measures identified.	No other specific measures identified.
Disposal	: See section 13 for waste disposal information.	See section 13 for waste disposal information.
Other hazards	: None known.	None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Product AS SOLD

Hazardous ingredients	Concentration Range (%)	CAS number
POTASSIUM HYDROXIDE	9	1310-58-3
sodium hypochlorite	4	7681-52-9
TETRAPOTASSIUM PYROPHOSPHATE	5 - 20	7320-34-5
COCAMINE OXIDE	1 - 5	61788-90-7
POTASSIUM SILICATE	1 - 5	1312-76-1

Product AT USE DILUTION

Within the present knowledge of the supplier, this product does not contain any hazardous ingredients in quantities requiring reporting, in accordance with local regulations.

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 immediately.	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.
Skin contact	: Take off immediately all contaminated clothing. Rinse skin with water or shower. Get medical attention immediately. Wash clothing before reuse. Clean shoes thoroughly before reuse.	Take off immediately all contaminated clothing. Rinse skin with water or shower. Get medical attention immediately. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention immediately.	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention immediately.
Ingestion	: Get medical attention immediately. Rinse mouth. Do not induce vomiting.	Get medical attention immediately. Rinse mouth. Do not induce vomiting.
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. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.	
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: phosphorus oxides 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.
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

	Product AS SOLD	Product AT USE DILUTION
Personal precautions	: Initiate company's spill response procedures immediately. Keep people out of area. Put on appropriate personal protective equipment (see section 8). Do not touch or walk through spilled material.	Initiate company's spill response procedures immediately. Keep people out of area. Put on appropriate personal protective equipment (see section 8). Do not touch or walk through spilled material.
Environmental precautions	: Avoid contact of spilled material and runoff with soil and surface waterways.	Avoid contact of spilled material and runoff with soil and surface waterways.
Methods for cleaning up	: Follow company's spill procedures. Keep people away from spill. Put on appropriate personal protective equipment (see section 8). Absorb/neutralize liquid material. Use a tool to scoop up solid or absorbed material and put into appropriate labeled container. Use a tool to scoop up solid or absorbed material and place into appropriate labeled waste container. Use a water rinse for final clean-up.	Follow company's spill procedures. Keep people away from spill. Put on appropriate personal protective equipment (see section 8). Absorb/neutralize liquid material. Use a tool to scoop up solid or absorbed material and put into appropriate labeled container. Use a tool to scoop up solid or absorbed material and place into appropriate labeled waste container. Use a water rinse for final clean-up.

Section 7. Handling and storage

	Product AS SOLD	Product AT USE DILUTION
Handling	: Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Use only with adequate ventilation. Wash thoroughly after handling. Mixing this product with acid or ammonia releases chlorine gas.	Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. 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: -20 and 40°C	Keep out of reach of children. Keep container tightly closed.

Section 8. Exposure controls/personal protection

Control parameters	
Ingredient name	Exposure limits
POTASSIUM HYDROXIDE sodium hypochlorite chlorine	ACGIH TLV (United States, 3/2012). C: 2 mg/m ³ NIOSH REL (United States, 6/2009). TWA: 2 mg/m ³ 10 hours. AIHA WEEL (United States, 10/2011). STEL: 2 mg/m ³ 15 minutes. 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.

	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. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.	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. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.
Personal protection		
Eye protection	: Use chemical splash goggles. For continued or severe exposure wear a face shield over the goggles.	Use chemical splash goggles. For continued or severe exposure wear a face shield over the goggles.
Hand protection	: Use chemical-resistant, impervious gloves.	Use chemical-resistant, impervious gloves.
Skin protection	: Use synthetic apron, other protective equipment as necessary to prevent skin contact.	Use synthetic apron, other protective equipment as necessary to prevent skin contact.
Respiratory protection	: A respirator is not needed under normal and intended conditions of product use.	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.	Liquid.
Color	: Yellow [Light]	Clear [Light]
Odor	: chlorine	chlorine [Slight]
pH	: 13 (100%)	12
Flash point	: > 100°C Product does not support combustion.	> 100°C

Section 9. Physical and chemical properties

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	: 1.24 (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.
Viscosity	: Not available.

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	: Extremely reactive or incompatible with the following materials: acids. Highly reactive or incompatible with the following materials: moisture. Reactive or incompatible with the following materials: metals. Slightly reactive or incompatible with the following materials: organic materials. 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: pain watering redness
Skin contact	: Adverse symptoms may include the following: pain or irritation redness blistering may occur
Inhalation	: Adverse symptoms may include the following: coughing Respiratory tract irritation
Ingestion	:

Product AT USE DILUTION

Adverse symptoms may include the following:
pain
watering
redness

Adverse symptoms may include the following:
pain or irritation
redness
blistering may occur

Adverse symptoms may include the following:
coughing
Respiratory tract irritation

Section 11. Toxicological information

<p>Adverse symptoms may include the following: stomach pains</p> <p>Acute toxicity</p> <p>Eye contact : Causes serious eye damage.</p> <p>Skin contact : Causes severe burns.</p> <p>Inhalation : May cause respiratory irritation.</p> <p>Ingestion : May cause burns to mouth, throat and stomach.</p>	<p>Adverse symptoms may include the following: stomach pains</p> <p>Causes serious eye damage.</p> <p>Causes severe burns.</p> <p>May cause respiratory irritation.</p> <p>May cause burns to mouth, throat and stomach.</p>
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Toxicity data

Product/ingredient name				
diphosphoric acid, tetrapotassium salt	LC50 Inhalation	Rat	>1.1 mg/l	
	Dusts and mists			
	LD50 Dermal	Rabbit	>2000 mg/kg	
	LD50 Oral	Rat	>2000 mg/kg	
sodium hypochlorite	LD50 Dermal	Rabbit	>10000 mg/kg	
	LD50 Oral	Rat	5230 mg/kg	
amines, coco alkyldimethyl, n-oxides	LD50 Dermal	Rat	>2174 mg/kg	
	LD50 Oral	Rat	846 mg/kg	
silicic acid, potassium salt	LD50 Oral	Rat	1500 to 3200 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 harmful to aquatic life.

Aquatic and terrestrial toxicity

Product/ingredient name	Result	Species	Exposure
potassium hydroxide	Acute LC50 80 mg/l	Fish	96 hours
diphosphoric acid, tetrapotassium salt	Acute EC50 >100 mg/l	Daphnia	48 hours
sodium hypochlorite	Acute EC50 0.071 mg/l	Daphnia	48 hours
amines, coco alkyldimethyl, n-oxides	Acute LC50 <1 mg/l	Fish	96 hours
silicic acid, potassium salt	Acute LC50 2320 mg/l	Fish	96 hours

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

Section 13. Disposal considerations

<p>Product AS SOLD</p> <p>Disposal methods : 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.</p> <p>RCRA classification : Unused product is D002 (Corrosive)</p>	<p>Product AT USE DILUTION</p> <p>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.</p>
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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 UN1814
 DOT Proper shipping name Potassium hydroxide, solution
 Class 8
 Packing group II

IMO/IMDG

IMO/IMDG Classification UN1814
 IMO/IMDG Proper shipping name POTASSIUM HYDROXIDE SOLUTION
 Class 8
 Packing group II

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.
 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.)

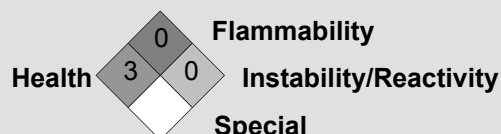
Health	*	3
Flammability		0
Physical hazards		0

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



Product AT USE DILUTION

Health		3
Flammability		0
Physical hazards		0



Section 16. Other information

Date of issue : 16 Oct 2013
Prepared by : Regulatory Affairs
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.