

QUORUM COPPER

Section 1. Chemical product and company identification

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

Product dilution information : Up to 6 oz/gal or 47 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 : 988808

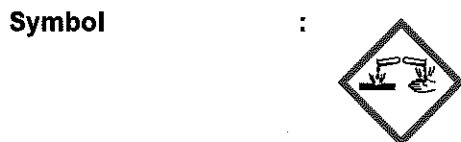
Date of issue : 11 Oct 2013
 EMERGENCY HEALTH INFORMATION: 1-800-328-0026
 Outside United States and Canada CALL 1-651-222-5352 (in USA)

Section 2. Hazards identification

Product AS SOLD
GHS Classification : SKIN CORROSION/IRRITATION - Category 1
 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1

GHS label elements

Signal word : Danger



Hazard statements : 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.

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 do. Continue rinsing. Immediately call a POISON CENTER or physician.

Product AT USE DILUTION
 SKIN CORROSION/IRRITATION - Category 1
 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1

Danger



Causes severe skin burns and eye damage.

Wear protective gloves. Wear eye or face protection. Wear protective clothing. Wash hands thoroughly after handling.

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Section 2. Hazards identification

or physician.
 No other specific measures identified.
 See section 13 for waste disposal information.
 None known.

Storage : 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 HYDROXIDE	19	1310-73-2
SODIUM LAURIMINODIPROPIONATE	1 - 5	14960-06-6

Product AT USE DILUTION

Hazardous ingredients	Concentration Range (%)	CAS number
SODIUM HYDROXIDE	2	1310-73-2

Section 4. First aid measures

Product AS SOLD

Eye contact : 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.

Inhalation : 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.

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 : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

See toxicological information (section 11)

Product AT USE DILUTION

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.

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.

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention immediately.

Get medical attention immediately. Rinse mouth. Do not induce vomiting.

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 :

Section 5. Fire-fighting measures

Decomposition products may include the following materials:
 carbon dioxide
 carbon monoxide
 nitrogen oxides
 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.	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: -25 and 50°C	Keep out of reach of children. Keep container tightly closed.

Section 8. Exposure controls/personal protection

Control parameters

Ingredient name	Exposure limits
SODIUM HYDROXIDE	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

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. 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	: Brown [Light]	Pale color
Odor	: Faint odor	Faint odor
pH	: 13.5 to 14 (100%)	12 to 13
Flash point	: > 100°C	> 100°C
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	: 1.212 to 1.222 (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 : 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** : Highly reactive or incompatible with the following materials: acids.
Slightly reactive or incompatible with the following materials: metals.
- 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** : Adverse symptoms may include the following:
stomach pains

Acute toxicity

- Eye contact** : Causes serious eye damage.
- Skin contact** : Causes severe burns.
- Inhalation** : May cause respiratory irritation.
- Ingestion** : May cause burns to mouth, throat and stomach.

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
- Adverse symptoms may include the following:
stomach pains
- Causes serious eye damage.
- Causes severe burns.
- May cause respiratory irritation.
- May cause burns to mouth, throat and stomach.

Toxicity data

Product/ingredient name

.beta.-alanine, n-(2-carboxyethyl)-n-dodecyl-, monosodium salt	LD50 Dermal	Rabbit	6800 mg/kg
	LD50 Oral	Rat	31300 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 : No known significant effects or critical hazards.

Aquatic and terrestrial toxicity

Product/ingredient name	Result	Species	Exposure
sodium hydroxide	Acute EC50 40 mg/l	Daphnia	48 hours
.beta.-alanine, n-(2-carboxyethyl)-n-dodecyl-, monosodium salt	Acute LC50 17.45 mg/l	Fish	96 hours

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.

Product AT USE DILUTION
 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)

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 UN1824
DOT Proper shipping name Sodium hydroxide solution
Class 8
Packing group II

IMO/IMDG

IMO/IMDG Classification UN1824
IMO/IMDG Proper shipping name SODIUM 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.) :

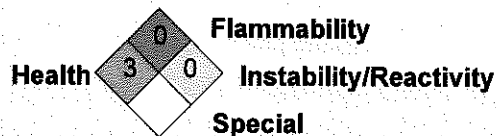
Health	*	3
Flammability		0
Physical hazards		0

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



Product AT USE DILUTION

Health	*	3
Flammability		0
Physical hazards		0



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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.