

SAFETY DATA SHEET



QC 91 HD ACID BATHROOM CLEANER

Section 1. Chemical product and company identification

Product name : QC 91 HD ACID BATHROOM CLEANER
Recommended use and restrictions : Cleaning product
Use only for the purpose on the product label.

Product dilution information : Up to 16 oz/gal or 125 mL/L in water



Supplier's information : Ecolab Inc. Institutional Division
370 N. Wabasha Street
St. Paul, MN 55102
1-800-352-5326

Code : 903544-04

Date of issue : 15 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 1B 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. Do not mix with bleach or other chlorinated products - will cause chlorine gas. Wash hands thoroughly after handling.	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
BUTOXYDIGLYCOL	19	112-34-5
CITRIC ACID	5 - 20	77-92-9
alcohols, c9-11, ethoxylated	5 - 20	68439-46-3
methanesulphonic acid	5 - 20	75-75-2
COCAMINE OXIDE	1 - 5	61788-90-7

Product AT USE DILUTION

Hazardous ingredients	Concentration Range (%)	CAS number
BUTOXYDIGLYCOL	2	112-34-5
CITRIC ACID	1 - 5	77-92-9
alcohols, c9-11, ethoxylated	1 - 5	68439-46-3

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: carbon dioxide carbon monoxide sulfur 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. Do not mix with bleach or other chlorinated products - will cause chlorine gas. 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: 10 and 50°C	Keep out of reach of children. Keep container tightly closed.

Section 8. Exposure controls/personal protection

<u>Control parameters</u>	
Ingredient name	Exposure limits
BUTOXYDIGLYCOL	ACGIH TLV (United States, 3/2012). TWA: 10 ppm 8 hours. Form: Inhalable fraction and vapor

	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	: Green [Dark]	Green [Light]
Odor	: Fragrance-like	Fragrance-like
pH	: 1.7 to 2.4 (100%)	0.38 to 1.38
Flash point	: >93.3 °C (Closed cup)	> 100°C
Explosion limits	: Not available.	
Flammability (solid, gas)	: Not available.	
Melting point	: Not available.	
Boiling point	: Not available.	
Evaporation rate (butyl acetate = 1)	: Not available.	
Vapor pressure	: Not available.	
Vapor density	: Not available.	
Relative density	: 1.07 to 1.13 (Water = 1)	
Solubility	: Easily soluble in the following materials: cold water and hot water.	

Section 9. Physical and chemical properties

Partition coefficient: : Not available.
 n-octanol/water
 Auto-ignition : Not available.
 temperature
 Decomposition : Not available.
 temperature
 Odor threshold : Not available.
 Viscosity : Not available.

Section 10. Stability and reactivity

Product AS SOLD
 Stability : The product is stable.
 Possibility of hazardous : Under normal conditions of storage and use, hazardous reactions will not occur.
 reactions
 Conditions to avoid : No specific data.
 Materials to avoid : Reactive or incompatible with the following materials: alkalis.
 Incompatible with chlorinated solvents.
 Do not mix with bleach or other chlorinated products - will cause chlorine gas.
 Hazardous decomposition : Under normal conditions of storage and use, hazardous decomposition products
 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

Section 11. Toxicological information

2-(2-butoxyethoxy)ethanol	LD50 Dermal	Rabbit	2764 mg/kg
	LD50 Oral	Rat	3306 mg/kg
citric acid	LD50 Dermal	Rat	>2000 mg/kg
	LD50 Oral	Rat	11700 mg/kg
alcohols, c9-11, ethoxylated	LD50 Dermal	Rat	>5000 mg/kg
	LD50 Oral	Rat	1400 mg/kg
methanesulphonic acid	LD50 Dermal	Rabbit	>1000 mg/kg
	LD50 Oral	Rat	649 mg/kg
amines, coco alkyldimethyl, n-oxides	LD50 Dermal	Rat	>2174 mg/kg
	LD50 Oral	Rat	846 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
2-(2-butoxyethoxy)ethanol	Acute LC50 1300 mg/l	Fish	96 hours
citric acid	Acute LC50 >100 mg/l	Fish	96 hours
alcohols, c9-11, ethoxylated	Acute LC50 8.5 mg/l	Fish	96 hours
methanesulphonic acid	Acute EC50 70 mg/l	Daphnia	48 hours
amines, coco alkyldimethyl, n-oxides	Acute LC50 <1 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** : UN3265
- DOT Proper shipping name** : Corrosive liquid, acidic, organic, n.o.s. (methane sulfonic acid)
- Class** : 8
- Packing group** : III

IMO/IMDG

- IMO/IMDG Classification** : UN3265

Section 14. Transport information

IMO/IMDG Proper shipping name : CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (METHANE SULFONIC ACID)
 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.
 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	: 2-(2-butoxyethoxy)ethanol	112-34-5	18.909

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

Health 3
Flammability 0
Instability/Reactivity 0
Special

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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.