

SAFETY DATA SHEET



PRINCIPAL

Section 1. Chemical product and company identification

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

Product dilution information : Up to 3 oz/4 gal or 5.8 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 : 948463

Date of issue : 13 Mar 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 : CORROSIVE TO METALS - Category 1
SKIN CORROSION/IRRITATION - Category 1
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
AQUATIC TOXICITY (ACUTE) - Category 2

GHS label elements

Signal word : Danger



Hazard statements : May be corrosive to metals.
Causes severe skin burns and eye damage.
Toxic to aquatic life.

Precautionary statements

Prevention : Wear protective gloves. Wear eye or face protection. Wear protective clothing. Keep only in original container. Avoid release to the environment. Wash hands thoroughly after handling. Mixing this product with acid or ammonia releases chlorine gas.

Response : Absorb spillage to prevent material damage. 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

Product AT USE DILUTION

CORROSIVE TO METALS - Category 1
SKIN CORROSION/IRRITATION - Category 1
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1

Danger



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Section 2. Hazards identification

	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.	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.
Storage	: Store in corrosive resistant container with a resistant inner liner.	Store in corrosive resistant container with a resistant inner liner.
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
SODIUM HYDROXIDE	15	1310-73-2
sodium hypochlorite	3	7681-52-9

Product AT USE DILUTION

Hazardous ingredients	Concentration Range (%)	CAS number
sodium hypochlorite	<0.5	7681-52-9

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. This material is toxic to aquatic life. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
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. Do not store above the following temperature: 40°C	Keep out of reach of children. Keep container tightly closed.

Section 8. Exposure controls/personal protection

Control parameters

Ingredient name	Exposure limits
<p>SODIUM HYDROXIDE</p> <p>sodium hypochlorite</p> <p>chlorine</p>	<p>ACGIH TLV (United States, 3/2012). C: 2 mg/m³</p> <p>OSHA PEL (United States, 6/2010). TWA: 2 mg/m³ 8 hours.</p> <p>NIOSH REL (United States, 6/2009). CEIL: 2 mg/m³</p> <p>AIHA WEEL (United States, 10/2011). STEL: 2 mg/m³ 15 minutes.</p> <p>ACGIH TLV (United States, 3/2012). STEL: 2.9 mg/m³ 15 minutes. STEL: 1 ppm 15 minutes. TWA: 1.5 mg/m³ 8 hours. TWA: 0.5 ppm 8 hours.</p> <p>OSHA PEL (United States, 6/2010). CEIL: 3 mg/m³ CEIL: 1 ppm</p> <p>NIOSH REL (United States, 6/2009). CEIL: 0.5 ppm 15 minutes. CEIL: 1.45 mg/m³ 15 minutes.</p>

Product AS SOLD

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.

Personal protection

Eye protection : Use chemical splash goggles. For continued or severe exposure wear a face shield over the goggles.

Hand protection : Use chemical-resistant, impervious gloves.

Skin protection : 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.

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.

Product AT USE DILUTION

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 chemical splash goggles. For continued or severe exposure wear a face shield over the goggles.

Use chemical-resistant, impervious gloves.

Use synthetic apron, other protective equipment as necessary to prevent skin contact.

A respirator is not needed under normal and intended conditions of product use.

Section 9. Physical and chemical properties

	Product AS SOLD
Physical state	: Liquid.
Color	: Yellow [Light]
Odor	: chlorine
pH	: 12.5 to 13.5 (100%)
Flash point	: > 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	: 1.237 to 1.25 (Water = 1)
Solubility	: Not available.
Partition coefficient: n-octanol/water	: Not available.
Auto-ignition temperature	: Not available.
Decomposition temperature	: Not available.
Odor threshold	: Not available.
Viscosity	: Not available.

Product AT USE DILUTION

Liquid.
Pale color [Light]
Faint odor
11.7 to 12.7
> 100°C

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. Reactive or incompatible with the following materials: moisture. Slightly reactive or incompatible with the following materials: metals. 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

Section 11. Toxicological information

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

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 toxic to aquatic life.

Aquatic and terrestrial toxicity

Product/ingredient name	Result	Species	Exposure
sodium hydroxide	Acute EC50 40 mg/l	Daphnia	48 hours
sodium hypochlorite	Acute EC50 0.071 mg/l	Daphnia	48 hours

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

Section 13. Disposal considerations

Product AS SOLD

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.

RCRA classification : Unused product is D002 (Corrosive)

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.

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.)

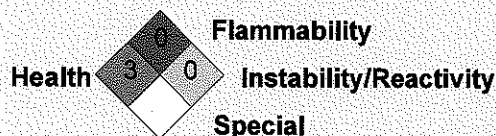
Health	*	3
Flammability		0
Physical hazards		0

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



Product AT USE DILUTION

Health		3
Flammability		0
Physical hazards		0



Section 16. Other information

Date of issue : 13 Mar 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.**