

SAFETY DATA SHEET



KEYSTONE APEX DISHMACHINE DETERGENT

Section 1. Chemical product and company identification

Product name : KEYSTONE APEX DISHMACHINE DETERGENT

Recommended use and restrictions : Machine Warewashing Detergent

Use only for the purpose on the product label.

Product dilution information : Up to 3.3 oz/10 gal or 2.5 g/L in water

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

Code : 913173-01

Date of issue : 28 Jun 2013

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**
: SERIOUS EYE DAMAGE/ EYE IRRITATION -
Category 2B

GHS label elements

Signal word : Warning

Hazard statements : Causes eye irritation.

Precautionary statements

Prevention : Avoid release to the environment. Mixing this product with acid or ammonia releases chlorine gas. Wash hands thoroughly after handling.

Response : 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 : No other specific measures identified.

Disposal : See section 13 for waste disposal information.

Other hazards : None known.

Product AT USE DILUTION

Not classified.

No signal word.

No known significant effects or critical hazards.

Wash thoroughly after handling.

Get medical attention if symptoms appear.

No other specific measures identified.

See section 13 for waste disposal information.

None known.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Product AS SOLD

Hazardous ingredients	Concentration Range (%)	CAS number
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Section 3. Composition/information on ingredients

SODIUM CARBONATE	>50	497-19-8
SODIUM METASILICATE	1 - 5	6834-92-0
PPG-5-LAURETH-5	1 - 5	68439-51-0
troclosene sodium, dihydrate	1 - 5	51580-86-0
phosphonic acid, (1-hydroxyethylidene)bis-, potassium salt	1 - 5	67953-76-8

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 if irritation persists.	No known effect after eye contact. Rinse with water for a few minutes.
Skin contact	: No known effect after skin contact. Rinse with water for a few minutes.	No known effect after skin contact. Rinse with water for a few minutes.
Inhalation	: No special measures required. Treat symptomatically.	No special measures required. Treat symptomatically.
Ingestion	: Get medical attention if symptoms occur.	Get medical attention if symptoms occur.
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	: 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)

Section 5. Fire-fighting measures

Product AS SOLD

Suitable fire extinguishing media	: Use water spray, fog or foam.
Specific hazards arising from the chemical	: No specific fire or explosion hazard.
Hazardous thermal decomposition products	: Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides 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	: Use personal protective equipment as required.	Use personal protective equipment as required.
Environmental precautions	: Avoid contact of large amounts of spilled material and runoff with soil and surface waterways.	Avoid contact of large amounts of spilled material and runoff with soil and surface waterways.
Methods for cleaning up	: Collect spillage. Use a water rinse for final clean-up.	Use a water rinse for final clean-up.

Section 7. Handling and storage

	Product AS SOLD	Product AT USE DILUTION
Handling	: Avoid contact with eyes, skin and clothing. Mixing this product with acid or ammonia releases chlorine gas. Wash thoroughly after handling.	Wash thoroughly after handling.
Storage	: Keep out of reach of children. Keep container tightly closed. Store between the following temperatures: 0 and 50°C	Keep out of reach of children.

Section 8. Exposure controls/personal protection

Control parameters

Ingredient name	Exposure limits
chlorine	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	: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.	Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
Personal protection		
Eye protection	: No protective equipment is needed under normal use conditions.	No protective equipment is needed under normal use conditions.
Hand protection	: No protective equipment is needed under normal use conditions.	No protective equipment is needed under normal use conditions.
Skin protection	: No protective equipment is needed under normal use conditions.	No protective equipment is needed under normal use conditions.
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
Physical state	: Solid
Color	: White
Odor	: chlorine
pH	: 11.1 to 11.8 (1%)
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	: Not available.
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.

Product AT USE DILUTION

Liquid.
Colorless
Odorless
10.79 to 10.91
> 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	: Slightly reactive or incompatible with the following materials: acids, alkalis and moisture. Mixing this product with acid or ammonia releases chlorine gas. Do not allow water to enter container. Wet material may generate halogenated gas that may pressurize sealed containers.
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, Ingestion

Section 11. Toxicological information

	Product AS SOLD	Product AT USE DILUTION
Symptoms		
Eye contact	: Adverse symptoms may include the following: irritation watering redness	No specific data.
Skin contact	: No specific data.	No specific data.
Inhalation	: No specific data.	No specific data.
Ingestion	: No specific data.	No specific data.
Acute toxicity		
Eye contact	: Causes eye irritation.	No known significant effects or critical hazards.
Skin contact	: No known significant effects or critical hazards.	No known significant effects or critical hazards.
Inhalation	: No known significant effects or critical hazards.	No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.	No known significant effects or critical hazards.

Toxicity data

Product/ingredient name

sodium carbonate	LC50 Inhalation Dusts and mists	Rat	1.15 mg/l
	LD50 Dermal	Rabbit	>2000 mg/kg
	LD50 Oral	Rat	2800 mg/kg
disodium metasilicate	LD50 Oral	Rat	500 mg/kg
alcohols, c12-14, ethoxylated propoxylated	LD50 Dermal	Rabbit	2290 mg/kg
	LD50 Oral	Rat	>2000 mg/kg
troclosene sodium, dihydrate	LD50 Dermal	Rat	>5000 mg/kg
	LD50 Oral	Rat	1823 mg/kg
phosphonic acid, (1-hydroxyethylidene)bis-, potassium salt	LD50 Oral	Rat	940 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
sodium carbonate	Acute EC50 200 mg/l	Daphnia	48 hours
disodium metasilicate	Acute LC50 210 mg/l	Fish	96 hours
alcohols, c12-14, ethoxylated propoxylated	Acute LC50 >1 mg/l	Fish	96 hours
troclosene sodium, dihydrate	Acute EC50 0.196 mg/l	Daphnia	48 hours
phosphonic acid, (1-hydroxyethylidene)bis-, potassium salt	Acute EC50 167 mg/l	Crustaceans	48 hours

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

Section 13. Disposal considerations

Product AS SOLD
Disposal methods : Diluted product can be flushed to sanitary sewer.
 Discard empty container in trash.

Product AT USE DILUTION
 Diluted product can be flushed to sanitary sewer. Discard empty container in trash.

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 : Not regulated.

IMO/IMDG

IMO/IMDG Classification : Not regulated.

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

SARA 313 : Product name CAS number Concentration

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	1
Flammability	0
Physical hazards	0

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



Product AT USE DILUTION

Health	0
Flammability	0
Physical hazards	0



Section 16. Other information

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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.**