

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name	:	APEX POWER PLUS
Other means of identification	:	Not applicable
Recommended use	:	Machine Warewashing Detergent
Restrictions on use	:	Reserved for industrial and professional use.
Product dilution information	•	0.12 % - 0.26 %
Company	:	Ecolab Inc. 370 N. Wabasha Street St. Paul, Minnesota USA 55102 1-800-352-5326
Emergency telephone	:	1-800-328-0026 (US/Canada), 1-651-222-5352 (outside US)
Issuing date	:	11/19/2014

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Product	AS SOLD	

Eye irritation	: Category 2B
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Product AT USE DILUTION

Not a hazardous substance or mixture.

GHS Label element

Product AS SOLD Signal Word	:	Warning
Hazard Statements	:	Causes eye irritation.
Precautionary Statements	:	 Prevention: Wash skin thoroughly after handling. Mixing this product with acid or ammonia releases chlorine gas. 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 advice/ attention.
Product AT USE DILUTION		
Precautionary Statements	:	Prevention: Wash hands thoroughly after handling. Response: Get medical advice/ attention if you feel unwell. Storage:

Store in accordance with local regulations.

Other hazards

: None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Product AS SOLD Pure substance/mixture	: Mixture		
Chemical Name Sodium Carbonate(soda) sodium metasilicate Alcohol ethoxylate Sodium Dichloro s Triazinetrio Phosphonates oxirane, methyl-, polymer with	-	CAS-No. 497-19-8 6834-92-0 68439-51-0 51580-86-0 67953-76-8 9003-11-6	Concentration (%) 60 - 100 1 - 5 1 - 5 1 - 5 1 - 5 0.1 - 1
Product AT USE DILUTION			
No hazardous ingredients			
SECTION 4. FIRST AID MEA	SURES		
Product AS SOLD In case of eye contact	: Rinse with plenty	of water.	
In case of skin contact	: Rinse with plenty	of water.	
If swallowed	: Rinse mouth. Get	t medical attention if sympt	toms occur.
If inhaled	: Get medical atter	ntion if symptoms occur.	
Protection of first-aiders	: No special preca	utions are necessary for fir	st aid responders.
Notes to physician	: Treat symptomati	ically.	
Most important symptoms and effects, both acute and delayed	: See Section 11 fo symptoms.	or more detailed informatio	n on health effects and
Product AT USE DILUTION In case of eye contact	: Rinse with plenty	of water.	
In case of skin contact	: Rinse with plenty	of water.	
If swallowed	: Rinse mouth. Get	t medical attention if sympt	toms occur.
If inhaled	: Get medical atter	ntion if symptoms occur.	

SECTION 5. FIRE-FIGHTING MEASURES

Product AS SOLD Suitable extinguishing media	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	:	None known.
Specific hazards during fire fighting	:	Not flammable or combustible.
Hazardous combustion products	:	Decomposition products may include the following materials: Carbon oxides Nitrogen oxides (NOx)

		Sulfur oxides Oxides of phosphorus
Special protective equipment for fire-fighters	:	Use personal protective equipment.
Specific extinguishing methods	:	Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. In the event of fire and/or explosion do not breathe fumes.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Product AS SOLD

Personal precautions, protective equipment and emergency procedures	:	Refer to protective measures listed in sections 7 and 8.
Environmental precautions	:	Do not allow contact with soil, surface or ground water.
Methods and materials for containment and cleaning up	:	Stop leak if safe to do so. Contain spillage, and then collect with non- combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Flush away traces with water. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.
Product AT USE DILUTION Personal precautions, protective equipment and emergency procedures	:	Refer to protective measures listed in sections 7 and 8.
Environmental precautions	:	No special environmental precautions required.
Methods and materials for containment and cleaning up	:	Stop leak if safe to do so. Contain spillage, and then collect with non- combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Flush away traces with water. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway.

SECTION 7. HANDLING AND	D ST	ORAGE
Product AS SOLD Advice on safe handling	:	Do not get in eyes, on skin, or on clothing. Wash hands thoroughly after handling. Mixing this product with acid or ammonia releases chlorine gas.
		Wash hands thoroughly after handling.
Conditions for safe storage	:	Keep out of reach of children. Store in suitable labeled containers.
Storage temperature	:	0 °C to 50 °C
Product AT USE DILUTION Advice on safe handling	:	Wash hands after handling. For personal protection see section 8.
Conditions for safe storage	:	Keep out of reach of children. Store in suitable labeled containers.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Product AS SOLD

Ingredients with workplace control parameters

Ingredients	CAS-No.	Form of exposure	Permissible concentration	Basis
chlorine	7782-50-5	TWA	0.5 ppm	ACGIH
		STEL	1 ppm	ACGIH
		Ceiling	0.5 ppm 1.45 mg/m3	NIOSH REL
		С	1 ppm 3 mg/m3	OSHA Z1

Contains no substances with occupational exposure limit values.

Engineering measures	: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Personal protective equipment

Eye protection	: No special protective equipment required.		
Hand protection	: No special protective equipment required.		
Skin protection	: No special protective equipment required.		
Respiratory protection	: No personal respiratory protective equipment normally required.		
Hygiene measures	: Handle in accordance with good industrial hygiene and safety practice.		
Product AT USE DILUTION Engineering measures	: Good general ventilation should be sufficient to control worker exposure to airborne contaminants.		
Personal protective equipment			
Eye protection	: No special protective equipment required.		
Hand protection	: No special protective equipment required.		
Skin protection	: No special protective equipment required.		
Respiratory protection	: No personal respiratory protective equipment normally required.		

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

		Product AS SOLD
Appearance	:	solid
Color	:	opaque, white
Odor	:	Chlorine
рН	:	11.0 - 11.8, 1 %
Flash point	:	Not applicable
Odor Threshold	:	No data available

Product AT USE DILUTION liquid colorless odorless 10.79 - 10.91

Melting point/freezing point	:	No data available
Initial boiling point and boiling range	:	No data available
Evaporation rate	:	No data available
Flammability (solid, gas)	:	No data available
Upper explosion limit	:	No data available
Lower explosion limit	:	No data available
Vapor pressure	:	No data available
Relative vapor density	:	No data available
Relative density	:	No data available
Water solubility	:	No data available
Solubility in other solvents	:	No data available
Partition coefficient: n- octanol/water	:	No data available
Autoignition temperature	:	No data available
Thermal decomposition	:	No data available
Viscosity, kinematic	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available
Molecular weight	:	No data available
VOC	:	No data available

SECTION 10. STABILITY AND REACTIVITY

Product AS SOLD Chemical stability	Stable under normal conditions.	
Possibility of hazardous reactions	Mixing this product with acid or ammonia releases chlorine gas.	
	No dangerous reaction known under conditions of normal use.	
Conditions to avoid	None known.	
Incompatible materials	Acids Bases	
Hazardous decomposition products	Decomposition products may include the following materials: Carbon oxides Nitrogen oxides (NOx) Sulfur oxides Oxides of phosphorus	

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of : Eye contact, Skin contact exposure

Potential Health Effects

Product AS SOLD Eyes	: Causes eye irritation.
Skin	: Health injuries are not known or expected under normal use.
Ingestion	: Health injuries are not known or expected under normal use.
Inhalation	: Health injuries are not known or expected under normal use.
Chronic Exposure	: Health injuries are not known or expected under normal use.
Product AT USE DILUTION Eyes	: Health injuries are not known or expected under normal use.
Skin	: Health injuries are not known or expected under normal use.
Ingestion	: Health injuries are not known or expected under normal use.
Inhalation	: Health injuries are not known or expected under normal use.
Chronic Exposure	: Health injuries are not known or expected under normal use.

Experience with human exposure

Product AS SOLD Eye contact	: Redness, Irritation	
Skin contact	: No symptoms known or expected.	
Ingestion	: No symptoms known or expected.	
Inhalation	: No symptoms known or expected.	
Product AT USE DILUTION Eye contact	: No symptoms known or expected.	
Skin contact	: No symptoms known or expected.	
Ingestion	: No symptoms known or expected.	
Inhalation	: No symptoms known or expected.	

Toxicity

Product AS SOLD

Acute oral toxicity	:	Acute toxicity estimate : 2,965 mg/kg
Acute inhalation toxicity	:	No data available
Acute dermal toxicity	:	Acute toxicity estimate : > 5,000 mg/kg
Skin corrosion/irritation	:	No skin irritation
Serious eye damage/eye irritation	:	Mild eye irritation
Respiratory or skin sensitization	:	No data available
Carcinogenicity	:	No data available
Reproductive effects	:	No data available

Germ cell mutagenicity	: No data available
Teratogenicity	: No data available
STOT-single exposure	: No data available
STOT-repeated exposure	: No data available
Aspiration toxicity	: No data available

SECTION 12. ECOLOGICAL INFORMATION

Product AS SOLD Ecotoxicity

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Environmental Effects :	Harmful to aquatic life.
Product	
Toxicity to fish :	No data available
Toxicity to daphnia and other : aquatic invertebrates	No data available
Toxicity to algae :	No data available
Ingredients	
Toxicity to fish :	sodium metasilicate 96 h LC50 Fish: 210 mg/l
	Alcohol ethoxylate 96 h LC50: > 1 mg/l
	oxirane, methyl-, polymer with oxirane 96 h LC50 Fish: > 100 mg/l
Ingredients	
Toxicity to daphnia and other : aquatic invertebrates	Sodium Carbonate(soda) 48 h EC50 Daphnia : 200 mg/l
	Sodium Dichloro s Triazinetrione Dihydrate 48 h EC50 Daphnia : 0.196 mg/l
	Phosphonates 48 h EC50: 167 mg/l
Persistence and degradability	
No data available	

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Product AS SOLD Disposal methods	: The product should not be allowed to enter drains, water courses or the soil. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste
Disposal considerations	disposal facility.Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-
Product AT USE DILUTION Disposal methods	Where possible recycling is preferred to disposal or incineration. If
	recycling is not practicable, dispose of in compliance with local regulations. Dispose of wastes in an approved waste disposal facility.
Disposal considerations	: Dispose of as unused product. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re- use empty containers.

SECTION 14. TRANSPORT INFORMATION

Product AS SOLD

The shipper/consignor/sender is responsible to ensure that the packaging, labeling, and markings are in compliance with the selected mode of transport.

Land transport (DOT)

Not dangerous goods

Sea transport (IMDG/IMO)

Not dangerous goods

Product AT USE DILUTION

Not intended for transport.

SECTION 15. REGULATORY INFORMATION

Product AS SOLD

EPCRA - Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards	:	Acute Health Hazard
SARA 302	:	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 313	:	This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

California Prop 65

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

The ingredients of this product are reported in the following inventories:

Switzerland. New notified substances and declared preparations : not determined

United States TSCA Inventory :

On TSCA Inventory

Canadian Domestic Substances List (DSL) : All components of this product are on the Canadian DSL.

Australia Inventory of Chemical Substances (AICS) : not determined

New Zealand. Inventory of Chemical Substances : On the inventory, or in compliance with the inventory

Japan. ENCS - Existing and New Chemical Substances Inventory : not determined

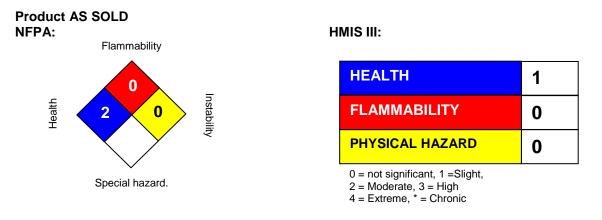
Japan. ISHL - Inventory of Chemical Substances (METI) : not determined

Korea. Korean Existing Chemicals Inventory (KECI) : not determined

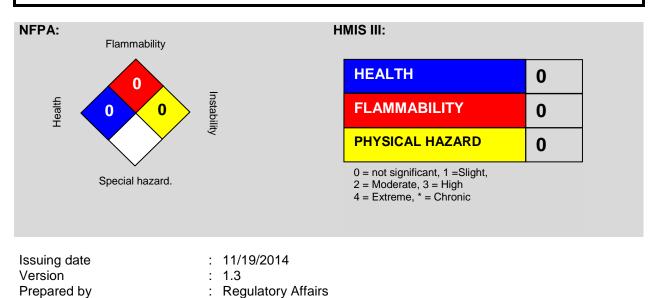
Philippines Inventory of Chemicals and Chemical Substances (PICCS) : not determined

China. Inventory of Existing Chemical Substances in China (IECSC) : not determined

SECTION 16. OTHER INFORMATION



Product AT USE DILUTION



REVISED INFORMATION: Significant changes to regulatory or health information for this revision is indicated by a bar in the left-hand margin of the SDS.

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.