SAFETY DATA SHEET

APEX METAL PROTECTION

Section 1. Chemical product and company identification

Product name	:	APEX METAL PROTECTION
Recommended use and restrictions	:	Machine Warewashing Detergent Use only for the purpose on the product label.
Product dilution information	:	Up to 0.4 oz/gal or 3.1 mL/L in water
Supplier's information	:	Ecolab Inc. Institutional Division 370 N. Wabasha Street St. Paul, MN 55102 1-800-352-5326
Code	:	914368
Date of issue	:	**27 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

		Product AS SOLD	**Product AT USE DILUTION**
GHS Classification	:	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A	Not classified.
GHS label elements			
Signal word	:	Warning	No signal word.
Symbol	:		
Hazard statements	:	Causes serious eye irritation.	No known significant effects or critical hazards.
Precautionary statements			
Prevention	:	Wear eye or face protection. Wash hands thoroughly after handling.	Wash 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.	Get medical attention if symptoms appear.
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
SODIUM CARBONATE	>50	497-19-8
SODIUM SILICATE	5 - 20	1344-09-8
alcohols, c13-15-branched and linear, butoxylated ethoxylated	1 - 5	111905-53-4
alanine, n,n-bis(carboxymethyl)-, trisodium salt	1 - 5	164462-16-2
oxirane, methyl-, polymer with oxirane	1 - 5	9003-11-6

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
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. 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
None.	

	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	: Wear eye protection.	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	Product AT USE DILUTION
Physical state	: Solid	Liquid.
Color	: White to yellowish [Light]	White to yellowish [Light]
Odor	: Faint odor	Faint odor
pH	: 10.74 to 10.83 (1%)	10.74 to 10.83
Flash point	: > 100°C	> 100°C
Explosion limits	: Not available.	

Section 9. Physical and chemical properties

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	:	1.001 to 1.003 (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.
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	:	Slightly reactive or incompatible with the following materials: acids.
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

		Product AS SOLD	**Product AT USE DILUTION**
<u>**Symptoms**</u>			
Eye contact	:	Adverse symptoms may include the following: pain or 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.
<u>**Acute toxicity**</u>			
Eye contact	:	Causes serious 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.

Section 11. Toxicological information

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
silicic acid, sodium salt	LD50 Oral	Rat	>2000 mg/kg
alcohols, c13-15-branched and linear, butoxylated ethoxylated	LD50 Dermal	Rat	>2000 mg/kg
	LD50 Oral	Rat	>2000 mg/kg
alanine, n,n-bis(carboxymethyl)-, trisodium salt	LD50 Dermal	Rat	>4000 mg/kg
	LD50 Oral	Rat	>2000 mg/kg
oxirane, methyl-, polymer with oxirane	LC50 Inhalation Dusts and mists	Rat	0.147 mg/l
	LD50 Dermal	Rabbit	>2000 mg/kg
	LD50 Oral	Rat	>2000 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
silicic acid, sodium salt	Acute LC50 210 mg/l	Fish	96 hours
alcohols, c13-15-branched and linear, butoxylated ethoxylated	Acute LC50 5 mg/l	Fish	96 hours
alanine, n,n-bis(carboxymethyl)-, trisodium salt	Acute LC50 >200 mg/l	Fish	96 hours
oxirane, methyl-, polymer with oxirane	Acute LC50 >100 mg/l	Fish	96 hours

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

Section 13. Disposal considerations

Disposal methods :

Product AS SOLD

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.**

Section 14. Transport information

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	2
Flammability	0
Physical hazards	0

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

Product AT USE DILUTION

Health	0
Flammability	0
Physical hazards	0

Date of issue : **27 Jun 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.