

# Material Safety Data Sheet



## KEYSTONE SOLID WAREWASHING MACHINE DETERGENT

### Section 1. Chemical product and company identification

**Trade name** : KEYSTONE SOLID WAREWASHING MACHINE DETERGENT  
**Product use** : Machine Warewashing Detergent  
**Supplier** : Ecolab Co.  
5105 Tomken Road  
Mississauga ON L4W 2X5  
1-800-352-5326  
**Code** : 949008-07  
**Date of issue** : 22-September-2008

**EMERGENCY HEALTH INFORMATION: 1-800-328-0026**  
**Outside United States and Canada CALL 1-651-222-5352 (in USA)**

### Section 2. Composition, information on ingredients

<u>Name</u>	<u>CAS number</u>	<u>% by weight</u>
sodium hydroxide	1310-73-2	30 - 60
sodium carbonate	497-19-8	15 - 40
triphosphoric acid, pentasodium salt	7758-29-4	10 - 30

### Section 3. Hazards identification

**Physical state** : Solid. [Cast Solid]

**Emergency overview** : WARNING!

CAUSES SEVERE EYE AND SKIN IRRITATION. Untreated contact may cause severe irritation or chemical burns.

MAY BE HARMFUL IF SWALLOWED.

May cause burns to mouth, throat and stomach.

Do not ingest. Do not get in eyes, on skin or on clothing. Wash thoroughly after handling.

**Routes of entry** : Skin contact, Eye contact, Ingestion

#### Potential acute health effects

**Eyes** : Severely irritating to eyes. Untreated contact may cause chemical burns.

**Skin** : Severely irritating to the skin. Untreated contact may cause severe irritation or chemical burns.

**Inhalation** : No known significant effects or critical hazards.

**Ingestion** : May be harmful if swallowed. Causes burns to mouth, throat and stomach.

**See toxicological information (section 11)**

### Section 4. First-aid measures

**Eye contact** : In case of contact, immediately flush eyes with cool running water. Remove contact lenses and continue flushing with plenty of water for at least 15 minutes. Get medical attention immediately.

**Skin contact** : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention immediately. Wash clothing before reuse. Clean shoes thoroughly before reuse.

**Inhalation** : If inhaled, remove to fresh air.

**Ingestion** : If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention immediately.

## Section 5. Fire-fighting measures

- Auto-ignition temperature** : Not available.
- Flash point** : > 100°C  
Product does not support combustion.
- Flammable limits** : Not available.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
sulfur oxides  
phosphorus oxides  
metal oxide/oxides
- Fire-fighting media and instructions** : Use an extinguishing agent suitable for the surrounding fire.  
Dyke area of fire to prevent runoff.
- No specific fire or explosion hazard.
- 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.

Risk of explosion of the product in the presence of mechanical impact: Not available.

Risk of explosion of the product in the presence of static discharge: Not available.

## Section 6. Accidental release measures

- Personal precautions** : Immediately contact emergency personnel. Stop leak if without risk. Use suitable protective equipment. Keep unnecessary personnel away. Do not touch or walk through spilt material.
- Environmental precautions** : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- Methods for cleaning up** : If emergency personnel are unavailable, vacuum or carefully scoop up spilt material and place in an appropriate container for disposal.

## Section 7. Handling and storage

- Handling** : Do not ingest. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling.
- Storage** : Keep out of the reach of children. Do not allow water to enter container. Keep container tightly closed. Keep container in a cool, well-ventilated area.  
Store between the following temperatures: -10 and 50°C

## Section 8. Exposure controls/personal protection

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

### Personal protection :

- Eyes** : Due to the form and packaging of the product, no protective equipment is needed under normal use conditions.
- Hands** : Due to the form and packaging of the product, no protective equipment is needed under normal use conditions.
- Skin** : Due to the form and packaging of the product, no protective equipment is needed under normal use conditions.
- Respiratory** : A respirator is not needed under normal and intended conditions of product use.

**Name** **Exposure limits**

sodium hydroxide	<b>CA Alberta Provincial (Canada, 10/2006).</b> C: 2 mg/m <sup>3</sup> 15 minute(s). <b>CA British Columbia Provincial (Canada, 7/2007).</b> STEL: 2 mg/m <sup>3</sup> 15 minute(s). <b>CA Ontario Provincial (Canada, 3/2007).</b> CEV: 2 mg/m <sup>3</sup> <b>CA Quebec Provincial (Canada, 12/2006).</b> STEV: 2 mg/m <sup>3</sup> 15 minute(s).  <b>ACGIH TLV (United States, 1/2008).</b> C: 2 mg/m <sup>3</sup>
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## Section 9. Physical and chemical properties

Physical state	: Solid. [Cast Solid]
Colour	: Blue. [Light]
Odour	: Faint odour.
pH	: 12 to 13 [Conc. (% w/w): 1%]
Boiling/condensation point	: Not available.
Melting/freezing point	: Not available.
Vapour pressure	: Not available.
Vapour density	: Not available.
Odour threshold	: Not available.
Evaporation rate	: Not available.
LogK <sub>ow</sub>	: Not available.
Solubility	: Easily soluble in the following materials: cold water and hot water.

## Section 10. Stability and reactivity

Stability	: The product is stable. Under normal conditions of storage and use, hazardous polymerisation will not occur.
Conditions of instability	: Not available.
Reactivity	: Extremely reactive or incompatible with the following materials: acids. Highly reactive or incompatible with the following materials: metals. Reactive or incompatible with the following materials: organic materials and moisture.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Hazardous polymerisation	: Under normal conditions of storage and use, hazardous polymerisation will not occur.

## Section 11. Toxicological information

### Potential acute health effects

Eyes	: Severely irritating to eyes. Untreated contact may cause chemical burns.
Skin	: Severely irritating to the skin. Untreated contact may cause severe irritation or chemical burns.
Inhalation	: No known significant effects or critical hazards.
Ingestion	: May be harmful if swallowed. Causes burns to mouth, throat and stomach.

### Potential chronic health effects

Carcinogenic effects	: No known significant effects or critical hazards.
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<u>Ingredient name</u>	<u>ACGIH</u>	<u>IARC</u>	<u>NTP</u>	<u>OSHA</u>
Not applicable.				

Mutagenic effects	: No known significant effects or critical hazards.
Teratogenic effects	: No known significant effects or critical hazards.

**Reproductive effects** : No known significant effects or critical hazards.

**Sensitization to Product** : No known significant effects or critical hazards.

**Synergistic products (toxicologically)** : Not available.

#### Toxicity data

<u>Ingredient name</u>	<u>Test</u>	<u>Route</u>	<u>Result</u>	<u>Species</u>
sodium hydroxide	LD50	Dermal	>2000 mg/kg	Rabbit
	LD50	Dermal	1350 mg/kg	Rabbit
	LD50	Oral	500 mg/kg	Rabbit
	LD50	Oral	300 to 500 mg/kg	Rat
sodium carbonate	LDLo	Oral	500 mg/kg	Rabbit
	LD50	Dermal	>2000 mg/kg	Rabbit
	LD50	Oral	6600 mg/kg	Mouse
	LD50	Oral	4090 mg/kg	Rat
triphosphoric acid, pentasodium salt	LC50	Inhalation	2300 mg/m <sup>3</sup>	Rat
	LD50	Dermal	>4640 mg/kg	Rabbit
	LD50	Oral	3120 mg/kg	Rat
	LD50	Oral	3100 mg/kg	Mouse
	LC50	Inhalation	0.39 mg/L	Rat

**Target organs** : Contains material which may cause damage to the following organs: lungs, upper respiratory tract.

## Section 12. Ecological information

#### Ecotoxicity

<u>Ingredient name</u>	<u>Species</u>	<u>Period</u>	<u>Result</u>
sodium hydroxide	Daphnia	48 hours	Acute EC50 156 mg/L
	Daphnia	48 hours	Acute EC50 45.4 mg/L
	Daphnia	48 hours	Acute EC50 40 mg/L
	Fish	96 hours	Acute LC50 189 mg/L
sodium carbonate	Fish	96 hours	Acute LC50 72 mg/L
	Daphnia	48 hours	Acute EC50 347 mg/L
	Daphnia - Water flea - Ceriodaphnia dubia - Neonate	48 hours	Acute EC50 199.82 to 298.9 mg/L Fresh water
	Fish	96 hours	Acute LC50 740 mg/L
	Fish	96 hours	Acute LC50 <850 mg/l
	Fish	96 hours	Acute LC50 320 mg/l
	Fish	96 hours	Acute LC50 300 mg/l
	Fish - Bluegill - Lepomis macrochirus	96 hours	Acute LC50 320000 ug/L Fresh water
	Fish - Bluegill - Lepomis macrochirus - 3.88 cm - 0.96 g	96 hours	Acute LC50 300000 ug/L Fresh water
	Daphnia - Water flea - Daphnia magna	48 hours	Acute LC50 265000 ug/L Fresh water
	Fish - Western mosquitofish - Gambusia affinis - Adult	96 hours	Acute LC50 740000 ug/L Fresh water
	Daphnia - Water flea - Daphnia magna	48 hours	Acute LC50 1640000 to 2030000 ug/L Fresh water
	Daphnia - Water flea - Ceriodaphnia dubia	48 hours	Acute LC50 1020000 to 1170000 ug/L Fresh water
	Daphnia - Water flea - Daphnia magna	48 hours	Acute LC50 565000 ug/L Fresh water
	Fish - Fathead minnow - Pimephales promelas - 1 to	96 hours	Acute LC50 <850000 ug/L Fresh water

	Pimephales promelas - 1 to 7 days		ug/L Fresh water
triphosphoric acid, pentasodium salt	Daphnia	48 hours	Acute EC50 >100 mg/L
	Fish	96 hours	Acute LC50 >100 mg/L
	Fish	96 hours	Acute LC50 >1600 mg/L

## Section 13. Disposal considerations

**Waste disposal** : The generation of waste should be avoided or minimised wherever possible. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Consult your local or regional authorities.

## 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.**

### UN Classification

UN number	UN3262
Proper shipping name	CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (Contains Sodium hydroxide)
Class	8
Packing group	III

See shipping documents for specific transportation information.

## Section 15. Regulatory information

**WHMIS** : Class E: Corrosive material

This product has been classified in accordance with the hazard criteria of the *Controlled Products Regulations* and the MSDS contains all the information required by the *Controlled Products Regulations*.

## Section 16. Other information

Date of issue	: 22-September-2008.
Responsible name	: Regulatory Affairs 1-800-352-5326
Date of previous issue	: 04-April-2006.

### 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.**