

Material Safety Data Sheet



KEYSTONE LIQUID POT & PAN DETERGENT

Section 1. Chemical product and company identification

Trade name : KEYSTONE LIQUID POT & PAN DETERGENT
Product use : Manual Warewashing Detergent
Supplier : Ecolab Co.
5105 Tomken Road
Mississauga ON L4W 2X5
1-800-352-5326
Code : 916585-01
Date of issue : 21-February-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>
poly(oxy-1,2-ethanediyl), .alpha.-sulfo-.omega.-hydroxy-, c10-16-alkyl ethers, sodium salts	68585-34-2	15 - 40
amides, coco, n,n-bis(hydroxyethyl)	68603-42-9	7 - 13
ethanol	64-17-5	5- 10
2,2'-iminodiethanol	111-42-2	1 - 5
alcohols, c12-15, ethoxylated	68131-39-5	1 - 5

Section 3. Hazards identification

Physical state : Liquid.
Emergency overview : WARNING !

CAUSES EYE AND SKIN IRRITATION.
MAY CAUSE RESPIRATORY TRACT IRRITATION.

Avoid contact with eyes, skin and clothing. Avoid breathing vapours, spray or mists. Use only with adequate ventilation. Keep container closed. Wash thoroughly after handling.

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

Potential acute health effects

Eyes : Irritating to eyes.
Skin : Irritating to skin.
Inhalation : Moderately irritating to the respiratory system.
Ingestion : No known significant effects or critical hazards.

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 if irritation persists.

Skin Contact : In case of contact, immediately flush skin with plenty of water. Continue to rinse for at least 10 minutes. Remove contaminated clothing and shoes. Get medical attention if irritation persists. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Inhalation : If inhaled, remove to fresh air.

Ingestion : Do not induce vomiting. Never give anything by mouth to an unconscious person. If irritation persists, get medical attention.

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 oxides nitrogen oxides halogenated compounds metal oxide/oxides
Fire-fighting media and instructions	: Use an extinguishing agent suitable for the surrounding fire. Dyke area of fire to prevent runoff. In a fire or if heated, a pressure increase will occur and the container may burst.
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	: Use suitable protective equipment (section 8). Do not allow to enter drains or watercourses.
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	: For small spills, add absorbent (soil may be used in the absence of other suitable materials), scoop up material and place in a sealable, liquid-proof container for disposal. For large spills, dyke spilt material or otherwise contain it to ensure runoff does not reach a waterway. Place spilt material in an appropriate container for disposal.

Section 7. Handling and storage

Handling	: Avoid contact with eyes, skin and clothing. Keep container closed. Use only with adequate ventilation. Avoid breathing vapour or mist. Wash thoroughly after handling.
Storage	: Keep out of reach of children. Keep container in a cool, well-ventilated area. Keep container tightly closed. Do not store below the following temperature: 0°C

Section 8. Exposure controls, personal protection

Engineering measures	: Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapour 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.
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Personal protection:

Eyes	: Wear eye protection.
Hands	: For prolonged or repeated handling, use the following type of gloves: Impervious gloves.
Skin	: No protective equipment is needed under normal use conditions.
Respiratory	: Avoid breathing vapours, spray or mists.

<u>Name</u>	<u>Exposure limits</u>
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ethanol	ACGIH TLV (United States, 1/2007). TWA: 1880 mg/m ³ 8 hour(s). TWA: 1000 ppm 8 hour(s).
2,2'-iminodiethanol	ACGIH TLV (United States, 1/2007). Skin TWA: 2 mg/m ³ 8 hour(s). TWA: 0.46 ppm 8 hour(s).

Section 9. Physical and chemical properties

Physical state	: Liquid.
Colour	: pink [Light]
Odour	: citrus
pH	: 8.5 [Conc. (% w/w): 100%]
Boiling/condensation point	: Not available.
Melting/freezing point	: Not available.
Specific gravity	: 1.035
Vapour pressure	: Not available.
Vapour density	: Not available.
Odour threshold	: Not available.
Evaporation rate	: Not available.
LogK _{ow}	: Not available.
Dispersibility properties	: Easily dispersed in cold water, hot water.
Solubility	: Easily soluble in cold water, 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	: Not available.
Hazardous Decomposition Products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Potential acute health effects

Eyes	: Irritating to eyes.
Skin	: Irritating to skin.
Inhalation	: Moderately irritating to the respiratory system.
Ingestion	: No known significant effects or critical hazards.

Potential chronic health effects

Carcinogenic effects : No known significant effects or critical hazards.

<u>Ingredient name</u>	<u>ACGIH</u>	<u>IARC</u>	<u>NTP</u>	<u>OSHA</u>
ethanol	A4	-	-	-
Diethanolamine	-	3	-	-

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>
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2,2'-iminodiethanol	LD50	Oral	3300 mg/kg	Mouse
	LD50	Oral	2200 mg/kg	Rabbit
	LD50	Oral	620 uL/kg	Rat
	LD50	Oral	2 g/kg	Guinea pig
alcohols, c12-15, ethoxylated	LD50	Dermal	>2000 mg/kg	Rabbit
	LD50	Oral	>2000 mg/kg	Rat
	LD50	Oral	2 g/kg	Rat
ethanol	LD50	Oral	7060 mg/kg	Rat
	LD50	Oral	6300 mg/kg	Rabbit
	LD50	Oral	7 g/kg	Rat

Target organs : Contains material which may cause damage to the following organs: upper respiratory tract, central nervous system (CNS).

Section 12. Ecological information

Ecotoxicity

<u>Ingredient name</u>	<u>Species</u>	<u>Period</u>	<u>Result</u>
2,2'-iminodiethanol	Fish	96 hours	Acute LC50 1480 mg/L
	Fish	96 hours	Acute LC50 1370 mg/L
	Daphnia	96 hours	Acute LC50 >100 mg/L
	Daphnia	96 hours	Acute LC50 100 mg/L
	Fish	96 hours	Acute LC50 100 mg/L
alcohols, c12-15, ethoxylated	Fish	96 hours	Acute LC50 >100 mg/L
	Daphnia	48 hours	Acute EC50 1.4 mg/L
	Daphnia	48 hours	Acute EC50 1.3 mg/L
	Fish	96 hours	Acute LC50 1.58 mg/L
	Fish	96 hours	Acute LC50 1.4 mg/L
	Fish	96 hours	Acute LC50 1.16 mg/L
	Fish	96 hours	Acute LC50 1.03 mg/L
ethanol	Fish	96 hours	Acute LC50 13000 mg/L
	Fish	96 hours	Acute LC50 >100 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

Regulatory information	UN number	Proper shipping name	Class	Packing group	Additional information
TDG Classification	Not regulated.	-	-	-	-

APPLIES ONLY DURING ROAD TRANSPORT

Any variation of the shipping description based on the packaging is not addressed.

Section 15. Regulatory information

WHMIS : Class D-2B: Material causing other toxic effects (Toxic).

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 : 21-February-2008.

Responsible name : Regulatory Affairs
1-800-352-5326

Date of previous issue : 23-February-2005.

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.**