

# Material Safety Data Sheet



KEYSTONE SOLID SHOT ALL PURPOSE CLEANER

## Section 1. Chemical product and company identification

**Trade name** : KEYSTONE SOLID SHOT ALL PURPOSE CLEANER  
**Product use** : All Purpose Cleaner  
**Supplier** : Ecolab Co.  
5105 Tomken Road  
Mississauga ON L4W 2X5  
1-800-352-5326  
**Code** : 903531  
**Date of issue** : 22-February-2006

**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 perborate, monohydrate	10332-33-9	30 - 60
2-butoxyethanol	111-76-2	15 - 40
acetic acid, sodium salt	127-09-3	7 - 13
ethanol	64-17-5	5- 10
quaternary ammonium compounds, c12-18-alkyl[(ethylphenyl)methyl]dimethyl, chlorides	68956-79-6	3 - 7
quaternary ammonium compounds, benzyl-c12-18-alkyldimethyl, chlorides	68391-01-5	3 - 7
boric acid	10043-35-3	1 - 5
methanol	67-56-1	0.1 - 1

## Section 3. Hazards identification

**Physical state** : Solid. (Tablet.)  
**Emergency overview** : WARNING!  
CAUSES EYE IRRITATION.  
MAY CAUSE RESPIRATORY TRACT AND SKIN IRRITATION.  
Avoid contact with eyes, skin and clothing. Avoid breathing dust. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.  
**Routes of entry** : Skin contact, Eye contact, Ingestion  
**Potential acute health effects**  
**Eyes** : Irritating to eyes.  
**Skin** : Moderately irritating to the 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.  
**Skin Contact** : Flush contaminated skin with plenty of water. Continue to rinse for at least 10 minutes. Get medical attention if irritation persists. Remove contaminated clothing and shoes. 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
Flammable limits	
Upper:	Not available.
Lower:	Not available.
Products of combustion	: Not available.
Fire-fighting media and instructions	: Use an extinguishing agent suitable for the surrounding fire.
	Dyke liquid for later disposal.
	No specific 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	: Ventilate area of leak or spill. Do not touch damaged containers or spilled material unless wearing appropriate protective equipment (Section 8). Stop leak if without risk. 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.
Methods for cleaning up	: If emergency personnel are unavailable, vacuum or carefully scoop up spilt material and place in an appropriate container for disposal by incineration. Avoid creating dusty conditions and prevent wind dispersal.

## Section 7. Handling and storage

Handling	: Avoid contact with eyes, skin and clothing. Avoid breathing dust. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.
Storage	: Keep out of the reach of children. Keep container tightly closed. Keep container in a cool, well-ventilated area. Store between 0 and 40°C

## Section 8. Exposure controls, personal protection

Engineering controls	: Use process enclosures, local exhaust ventilation or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fumes or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
<b>Personal protection</b>	
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 dust.
<b>Name</b>	<b>Exposure limits</b>
2-butoxyethanol	<b>ACGIH TLV (United States, 1/2004).</b> TWA: 20 ppm 8 hour(s). Form: All forms
ethanol	<b>ACGIH TLV (United States, 1/2004).</b> TWA: 1880 mg/m <sup>3</sup> 8 hour(s). Form: All forms TWA: 1000 ppm 8 hour(s). Form: All forms
methanol	<b>ACGIH TLV (United States, 1/2004). Skin</b> STEL: 328 mg/m <sup>3</sup> 15 minute/minutes. Form: All forms STEL: 250 ppm 15 minute/minutes. Form: All forms TWA: 262 mg/m <sup>3</sup> 8 hour(s). Form: All forms TWA: 200 ppm 8 hour(s). Form: All forms

## Section 9. Physical and chemical properties

Physical state	: Solid. (Tablet.)
Colour	: Yellow. (Light.)
Odour	: Fragrance-like.
pH	: 9.86 (1%)
Boiling/condensation point	: Not available.
Melting/freezing point	: Not available.
Vapour pressure	: Not applicable.
Vapour density	: Not available.
Odour threshold	: Not available.
Evaporation rate	: Not applicable.
LogK <sub>ow</sub>	: 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.
Conditions of instability	: Not available.
Reactivity	: Slightly reactive to reactive with organic materials, metals, acids, alkalis, moisture.
Incompatibility with various substances	: Not available.
Hazardous Decomposition Products	: Not available.

## Section 11. Toxicological information

### Potential acute health effects

Eyes	: Irritating to eyes.
Skin	: Moderately irritating to the skin.
Inhalation	: Moderately irritating to the respiratory system.
Ingestion	: No known significant effects or critical hazards.
Irritancy of Product	: Hazardous by WHMIS criteria.

### Potential chronic health effects

Carcinogenic effects	: No known significant effects or critical hazards.
Mutagenic effects	: No known significant effects or critical hazards.
Teratogenic effects	: Hazardous by WHMIS criteria.
Reproductive effects	: Hazardous by WHMIS criteria.
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>Result</u>	<u>Route</u>	<u>Species</u>
2-butoxyethanol	LD50	470 mg/kg	Oral	Rat
	LD50	300 mg/kg	Oral	Rabbit
	LD50	1200 mg/kg	Oral	Guinea pig
	LD50	220 mg/kg	Dermal	Rabbit
acetic acid, sodium salt	LD50	3530 mg/kg	Oral	Rat
	LD50	6891 mg/kg	Oral	Mouse
ethanol	LD50	7060 mg/kg	Oral	Rat
	LD50	6300 mg/kg	Oral	Rabbit
	LD50	3450 mg/kg	Oral	Mouse
	LDLo	1400 mg/kg	Oral	human
	LDLo	5500 mg/kg	Oral	Dog
	LD50	2660 mg/kg	Oral	Rat
boric acid	LD50	3450 mg/kg	Oral	Mouse
	LDLo	200 mg/kg	Oral	woman
	LDLo	429 mg/kg	Oral	man
	LDLo	934 mg/kg	Oral	infant

methanol	LDLo	1200 mg/kg	Dermal	infant
	LDLo	1500 mg/kg	Dermal	child
	LDLo	2430 mg/kg	Dermal	man
	LD50	5628 mg/kg	Oral	Rat
	LD50	14200 mg/kg	Oral	Rabbit
	LD50	7300 mg/kg	Oral	Mouse
	LD50	15800 mg/kg	Dermal	Rabbit
	LDLo	143 mg/kg	Oral	human
	LDLo	428 mg/kg	Oral	human
	LDLo	6422 mg/kg	Oral	man
	LDLo	393 mg/kg	Dermal	Monkey

**Target organs** : Contains material which causes damage to the following organs: blood, kidneys, the reproductive system, liver, lymphatic system, upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea.

## Section 12. Ecological information

### Ecotoxicity data

<u>Ingredient name</u>	<u>Species</u>	<u>Period</u>	<u>Result</u>
2-butoxyethanol ethanol	Lepomis macrochirus (LC50)	96 hour(s)	1490 mg/l
	Daphnia magna (EC50)	48 hour(s)	2 mg/l
	Daphnia magna (EC50)	48 hour(s)	9.3 mg/l
	Daphnia magna (EC50)	48 hour(s)	>100 mg/l
	Pimephales promelas (LC50)	96 hour(s)	>100 mg/l
boric acid	Daphnia magna (LC50)	96 hour(s)	>100 mg/l
	Oncorhynchus mykiss (LC50)	96 hour(s)	13000 mg/l
	Daphnia magna (EC50)	48 hour(s)	133 mg/l
	Daphnia magna (EC50)	48 hour(s)	226 mg/l
	Daphnia magna (EC50)	48 hour(s)	777 mg/l
methanol	Oncorhynchus mykiss (LC50)	96 hour(s)	>800 mg/l
	Lepomis macrochirus (LC50)	96 hour(s)	>1021 mg/l
	Oncorhynchus mykiss (LC50)	96 hour(s)	>1100 mg/l
	Daphnia magna (EC50)	48 hour(s)	>10000 mg/l
	Oncorhynchus mykiss (EC50)	48 hour(s)	13200 mg/l
	Lepomis macrochirus (EC50)	48 hour(s)	16000 mg/l
	Pimephales promelas (LC50)	96 hour(s)	>100 mg/l
	Daphnia magna (LC50)	96 hour(s)	>100 mg/l
	Lepomis macrochirus (LC50)	96 hour(s)	15400 mg/l
	Lepomis macrochirus (LC50)	96 hour(s)	15400 mg/l

**Products of degradation** : These products are carbon oxides (CO, CO<sub>2</sub>) and water. Some metallic oxides.

## 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
<b>TDG</b> Classification	UN1759	CORROSIVE SOLID, N.O.S. (Quaternary ammonium chloride)	8	III	<b><u>Explosive Limit and Limited Quantity Index</u></b> 5  <b><u>Passenger Carrying Road or Rail Index</u></b> 25

					<b>Special provisions</b> 16
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**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-2A: Material causing other toxic effects (Very toxic).  
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** : 22-February-2006.  
**Responsible name** : Regulatory Affairs  
**Date of previous issue** : No previous validation.

**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.