

Material Safety Data Sheet



SOLID POWER

Section 1. Chemical product and company identification

Trade name : SOLID POWER
Product use : Machine Warewashing Detergent
Supplier : Ecolab Co.
5105 Tomken Road
Mississauga ON L4W 2X5
1-800-352-5326
Code : 949008
Date of issue : 21-September-2005

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!
Untreated contact may cause severe irritation or chemical burns.
CAUSES SEVERE EYE AND SKIN IRRITATION.
HARMFUL IF SWALLOWED.
Do not ingest. Do not get water inside container. Do not get in eyes, on skin or clothing. 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 : 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 : Harmful if swallowed. May cause 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. Obtain medical attention immediately.
Skin Contact : In case of contact, immediately flush skin copiously with water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Obtain medical attention immediately.
Inhalation : If inhaled, remove to fresh air.
Ingestion : Rinse mouth; then drink one or two large glasses of water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Obtain medical attention immediately.

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 surrounding fires.
	Dike area of fire to prevent product run-off.
	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.
Risks of explosion of the product in presence of mechanical impact:	Not available.
Risks of explosion of the product in 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. Prevent entry into sewers, water courses, basements or confined areas.
Environmental precautions	: Avoid dispersal of spilled 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 spilled materials and place in an appropriate container for disposal. Avoid creating dusty conditions and prevent wind dispersal.

Section 7. Handling and storage

Handling	: Do not ingest. Do not get in eyes, on skin or on clothing. Keep container closed. Use only with adequate ventilation. Avoid breathing dust. Wash thoroughly after handling.
Storage	: Keep out of the reach of children. Do not get water inside container. Keep container tightly closed. Keep container in a cool, well-ventilated area. Store between -10 and 50°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, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit. When working with concentrate have eyewash available.
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	: No protective equipment is needed under normal use conditions.
Name	Exposure limits
sodium hydroxide	ACGIH TLV (United States, 1/2004). CEIL: 2 mg/m ³

Section 9. Physical and chemical properties

Physical state	: Solid. (Cast Solid)
Colour	: Blue. (Light.)
Odour	: Faint Odour
pH	: 12.5 (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 _{ow}	: Not available.

Section 10. Stability and reactivity

Stability	: The product is stable.
Conditions of instability	: Not available.
Reactivity	: Extremely reactive or incompatible with acids. Highly reactive with metals. Reactive with organic materials.
Incompatibility with various substances	: Not available.
Hazardous Decomposition Products	: Not available.

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	: Harmful if swallowed. May cause burns to mouth, throat and stomach.
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	: 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	: Not available.

(Toxicologically)

Toxicity data

<u>Ingredient name</u>	<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
sodium hydroxide	LDLo	500 mg/kg	Oral	Rabbit
sodium carbonate	LD50	4090 mg/kg	Oral	Rat
	LD50	6600 mg/kg	Oral	Mouse
	LDLo	714 mg/kg	Oral	man
triposphoric acid, pentasodium salt	LD50	3120 mg/kg	Oral	Rat
	LD50	3100 mg/kg	Oral	Mouse
	LD50	>4640 mg/kg	Dermal	Rabbit

Target organs	: Contains material which causes damage to the following organs: lungs, upper respiratory tract, skin, eye, lens or cornea.
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Section 12. Ecological information

Ecotoxicity data

<u>Ingredient name</u>	<u>Species</u>	<u>Period</u>	<u>Result</u>
sodium carbonate	Lepomis macrochirus (LC50)	96 hour(s)	300 mg/l
	Lepomis macrochirus (LC50)	96 hour(s)	320 mg/l
	Pimephales promelas (LC50)	96 hour(s)	<850 mg/l
Products of degradation : These products are carbon oxides (CO, CO ₂) and water, sulphur oxides (SO ₂ , SO ₃ , etc.), phosphates. Some metallic oxides.			

Section 13. Disposal considerations

Waste disposal : The generation of waste should be avoided or minimised wherever possible. Avoid dispersal of spilled 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	UN1759	CORROSIVE SOLID, N.O.S. (Sodium hydroxide)	8	III	<u>Explosive Limit and Limited Quantity Index</u> 5 <u>Passenger Carrying Road or Rail Index</u> 25 <u>Special provisions</u> 16

APPLIES ONLY DURING ROAD TRANSPORT

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

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 : 21-September-2005.

Responsible name : Regulatory Affairs

Date of previous issue : 12-January-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.