

Material Safety Data Sheet

SOLID POWER



1. Product and company identification

Trade name of product : SOLID POWER

Product use :

Product dilution information : Up to 2.7 oz/10 gal in water

Supplier's information : Ecolab Co.
5105 Tomken Road
Mississauga ON L4W 2X5
1-800-352-5326

Code : 914100-01

Date of issue : 16-November-2010

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

2. Hazards identification

Product AS SOLD

Physical state : Cast Solid

Emergency overview : WARNING !

CAUSES DIGESTIVE TRACT BURNS.
CAUSES SEVERE EYE AND SKIN IRRITATION.
Untreated contact may cause severe irritation or chemical burns.
MAY BE HARMFUL IF SWALLOWED.

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

Product AS SOLD

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

See toxicological information (section 11)

Product AT USE DILUTION

Liquid.
CAUTION !

No specific hazard.

No specific hazard.

Product AT USE DILUTION

No known significant effects or critical hazards.

No known significant effects or critical hazards.

No known significant effects or critical hazards.

No known significant effects or critical hazards.

3. Composition/information on ingredients

Product AS SOLD

<u>Name</u>	<u>CAS number</u>	<u>% by weight</u>
SODIUM HYDROXIDE	1310-73-2	30 - 60
SODIUM CARBONATE	497-19-8	10 - 30

3. Composition/information on ingredients

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.

4. First-aid measures

	Product AS SOLD	Product AT USE DILUTION
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.	No known effect after eye contact. Rinse with water for a few minutes.
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.	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	: 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.	Get medical attention if symptoms occur.

5. Fire-fighting measures

Product AS SOLD

Auto-ignition temperature	: Not available.
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
Special remarks on fire hazards	: Not available.
Special remarks on explosion hazards	: Not available.
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.

6. Accidental release measures

	Product AS SOLD	Product AT USE DILUTION
Personal precautions	: Initiate company's spill response procedures immediately. Keep people out of area. Put on appropriate personal protective equipment (see section 8). Do not touch or walk through spilt material.	Use personal protective equipment as required.
Environmental precautions	: Avoid contact of spilt material and runoff with soil and surface waterways.	Avoid contact of large amounts of spilt material and runoff with soil and surface waterways.

6. Accidental release measures

Methods for cleaning up : Collect spillage. Use a water rinse for final clean-up.

Use a water rinse for final clean-up.

7. Handling and storage

Handling : Do not ingest. Do not get in eyes, on skin, or on clothing. Do not breathe dust. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.

Storage : Keep out of reach of children. Keep container tightly closed.

Store between the following temperatures: -10 and 50°C

Product AT USE DILUTION

Wash thoroughly after handling.

Keep out of reach of children.

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 : Due to the form and packaging of the product, no protective equipment is needed under normal use conditions.

Product AT USE DILUTION

Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

No protective equipment is needed under normal use conditions.

No protective equipment is needed under normal use conditions.

No protective equipment is needed under normal use conditions.

No special protection is required.

Occupational exposure limits		TWA (8 hours)			STEL (15 mins)			Ceiling			
Ingredient	List name	ppm	mg/m ³	Other	ppm	mg/m ³	Other	ppm	mg/m ³	Other	Notations
sodium hydroxide	US ACGIH 2/2010	-	-	-	-	-	-	-	2	-	[3]
	AB 4/2009	-	-	-	-	-	-	-	2	-	
	BC 10/2009	-	-	-	-	-	-	-	2	-	
	ON 7/2010	-	-	-	-	-	-	-	2	-	
	QC 6/2008	-	-	-	-	2	-	-	-	-	

[3]Skin sensitisation

9. Physical and chemical properties

Physical state : Cast Solid

Flash point : > 100°C
Product does not support combustion.

Colour : Off-white.

Odour : Faint odour.

pH : 12 to 13 [Conc. (% w/w): 1%]

Boiling/condensation point : Not available.

Product AT USE DILUTION

Liquid.
> 100°C

Clear.

Odourless.

11.2 to 11.7

9. Physical and chemical properties

Melting/freezing point : Not available.

Relative density : Not available.

Vapour pressure : Not available.

Vapour density : Not available.

Odour threshold : Not available.

Evaporation rate : Not available.

Viscosity : Not available.

Dispersibility properties : Not available.

Solubility : Easily soluble in the following materials: cold water and hot water.

LogK_{ow} : Not available.

10. Stability and reactivity

Product AS SOLD

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.

11. Toxicological information

Potential acute health effects

Product AS SOLD

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

Product AT USE DILUTION

No known significant effects or critical hazards.

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No known significant effects or critical hazards.

Product AS SOLD

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 (toxicologically) : Not available.

Toxicity data

Product/ingredient name	Test	Route	Result	Species
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11. Toxicological information

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
	LDLo	Oral	500 mg/kg	Rabbit
sodium carbonate	LD50	Dermal	>2000 mg/kg	Rabbit
	LD50	Oral	6600 mg/kg	Mouse
	LD50	Oral	4090 mg/kg	Rat
	LC50	Inhalation	2300 mg/m3	Rat

Other adverse effects

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

12. Ecological information

Ecotoxicity : Not reported

13. Disposal considerations

Product AS SOLD

Waste disposal : Avoid disposal. Attempt to use product completely in accordance with intended use. Disposal should be in accordance with applicable regional, national and local laws and regulations.

Product AT USE DILUTION

Diluted product can be flushed to sanitary sewer. Discard empty container in trash.

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.

Product AS SOLD

TDG Classification	UN1759
TDG Proper shipping name	CORROSIVE SOLID, N.O.S. (sodium hydroxide)
Class	8
Packing group	III

For transport in bulk or using IMDG regulations, see shipping documents for specific transportation information.

Product AT USE DILUTION

Not intended for transport.

15. Regulatory information

Product AS SOLD

WHMIS : Class E: Corrosive material

Product AT USE DILUTION

Not hazardous by WHMIS criteria.

Canada inventory : All components are listed or exempted.

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.

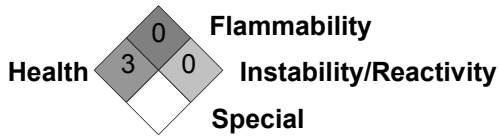
16. Other information

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



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

☑ Indicates information that has changed from previously issued version.

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.**