

Material Safety Data Sheet

SSDC BULK ACTIVATED DESCALER



1. Product and company identification

Trade name of product : SSDC BULK ACTIVATED DESCALER

Product use : Delimer

Product dilution information : 3%

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

Code : 914376

Date of issue : 09-August-2011

EMERGENCY HEALTH INFORMATION: 1-800-391-1504

2. Hazards identification

Product AS SOLD

Physical state : Powder

Emergency overview : DANGER !

CAUSES RESPIRATORY TRACT, DIGESTIVE TRACT, EYE AND SKIN BURNS.

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.

Routes of entry : Skin contact, Eye contact, Ingestion

Potential acute health effects

Product AS SOLD

Eyes : Corrosive to eyes.

Skin : Corrosive to the skin.

Inhalation : Corrosive to the respiratory system.

Ingestion : Causes burns to mouth, throat and stomach.

See toxicological information (section 11)

Product AT USE DILUTION

Liquid.

DANGER !

CAUSES RESPIRATORY TRACT, DIGESTIVE TRACT, EYE AND SKIN BURNS.

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

Product AT USE DILUTION

Corrosive to eyes.

Corrosive to the skin.

Corrosive to the respiratory system.

Causes burns to mouth, throat and stomach.

3. Composition/information on ingredients

Product AS SOLD

<u>Name</u>	<u>CAS number</u>	<u>% by weight</u>
sulphamic acid	5329-14-6	30 - 60
CITRIC ACID	77-92-9	15 - 40
ALUMINUM SULFATE	10043-01-3	7 - 13

Product AT USE DILUTION

<u>Name</u>	<u>CAS number</u>	<u>% by weight</u>
sulphamic acid	5329-14-6	0.5 - 1.5

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.	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.	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. If exposed person is not breathing, give artificial respiration or oxygen applied by trained personnel. Get medical attention immediately.	If inhaled, remove to fresh air. If exposed person is not breathing, give artificial respiration or oxygen applied by trained personnel. Get medical attention immediately.
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.	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.

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 nitrogen oxides sulfur oxides metal oxide/oxides
Special remarks on fire hazards	: Not available.
Special remarks on explosion hazards	: Not available.
Fire-fighting media and instructions	: Use dry chemical powder. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. Dyke area of fire to prevent runoff. Fine dust clouds may form explosive mixtures with air.
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.	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.
Environmental precautions	: Avoid contact of spilt material and runoff with soil and surface waterways.	Avoid contact of spilt material and runoff with soil and surface waterways.

6. Accidental release measures

Methods for cleaning up	: If emergency personnel are not present, contain and collect small spillages with non-combustible absorbent material, e.g. sand, earth or other suitable material and place in a suitable container for disposal. Use a water rinse for final clean-up.	Follow company's spill procedures. Keep people away from spill. Put on appropriate personal protective equipment (see section 8). Absorb/neutralise liquid material. Use a tool to scoop up solid or absorbed material and put into appropriate labelled container. Use a water rinse for final clean-up.
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7. Handling and storage

Handling	Product AS SOLD : 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. Do not mix with bleach or other chlorinated products - will cause chlorine gas.	Product AT USE DILUTION Do not ingest. Do not get in eyes, on skin, or on clothing. Do not breathe vapour or spray. 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: 0 and 50°C	Keep out of reach of children. Keep container tightly closed.

8. Exposure controls/personal protection

Engineering measures	Product AS SOLD : 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. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.	Product AT USE DILUTION 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. Provide suitable facilities for quick drenching or flushing of the eyes and body in case of contact or splash hazard.
Personal protection		
Eyes	: Use chemical splash goggles. For continued or severe exposure wear a face shield over the goggles.	Use chemical splash goggles. For continued or severe exposure wear a face shield over the goggles.
Hands	: Use chemical-resistant, impervious gloves.	Use chemical-resistant, impervious gloves.
Skin	: Use synthetic apron, other protective equipment as necessary to prevent skin contact.	Use synthetic apron, other protective equipment as necessary to prevent skin contact.
Respiratory	: Wear appropriate respirator when ventilation is inadequate and occupational exposure limits are exceeded.	Wear appropriate respirator when ventilation is inadequate and occupational exposure limits are exceeded.

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
aluminum sulfate, as Al	AB 4/2009	-	2	-	-	-	-	-	-	-	[3]
	QC 6/2008	-	2	-	-	-	-	-	-	-	

[3]Skin sensitisation

9. Physical and chemical properties

Product AS SOLD

Physical state	: Powder
Flash point	: > 100°C
Colour	: White
Odour	: Faint odour
pH	: 1 to 3 [Conc. (% w/w): 1%]
Boiling/condensation point	: 100°C (212°F)
Melting/freezing point	: Not available.
Relative density	: 1.142
Vapour pressure	: Not available.
Vapour density	: Not available.
Odour threshold	: Not available.
Evaporation rate	: Not available.
Viscosity	: Not available.
Dispersibility	: Not available.
Solubility	: Easily soluble in the following materials: cold water and hot water.
LogK_{ow}	: Not available.

Product AT USE DILUTION

Liquid.
> 100°C
Hazy liquid
Faint odour
1.5

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	: Reactive or incompatible with the following materials: alkalis. Slightly reactive or incompatible with the following materials: organic materials, metals, acids and moisture. Do not mix with bleach or other chlorinated products - will cause chlorine gas.
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	: Corrosive to eyes.
Skin	: Corrosive to the skin.
Inhalation	: Corrosive to the respiratory system.
Ingestion	: Causes burns to mouth, throat and stomach.

Product AT USE DILUTION

Corrosive to eyes.
Corrosive to the skin.
Corrosive to the respiratory system.
Causes burns to mouth, throat and stomach.

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.

11. Toxicological information

Synergistic products (toxicologically) : Not available.

Toxicity data

Product/ingredient name	Test	Route	Result	Species
sulphamidic acid	LD50	Oral	3160 mg/kg	Rat
	LD50	Oral	1312 mg/kg	Mouse
citric acid	LD50	Oral	3 g/kg	Rat
	LD50	Oral	11700 mg/kg	Rat
	LD50	Oral	7280 mg/kg	Mouse
	LD50	Oral	5040 mg/kg	Mouse
	LDLo	Oral	7 g/kg	Rabbit
aluminum sulfate	LD50	Oral	6207 mg/kg	Mouse

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

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.

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	UN2967
TDG Proper shipping name	SULFAMIC ACID
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

Class E: Corrosive material

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.)

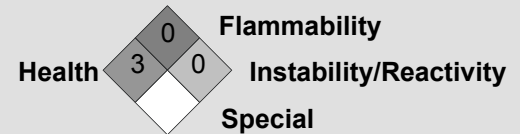
Health	*	3
Flammability		0
Physical hazards		0

National Fire Protection :
Association (U.S.A.)



Product AT USE DILUTION

Health		3
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.**