



<b>Fluval SEA</b>
<b>Alkalinity Supplement</b>
<b>A8253 / A8254 /A8255</b>

<b>Section I. Product identification and uses</b>	
Product name	Marine Alkalinity Supplement
CAS #	Mixture
Use	To adjust alkalinity of aquarium water
Supplier	Rolf C. Hagen Inc., 20 500 Trans Canada Hwy, Baie d'Urfé, H9X 0A2
Emergency	Call your local Poison Control Centre

<b>Section II. Composition and information on ingredients</b>				
Ingredients	Conc. (%)	CAS #	LD50	LC50
Sodium carbonate	7-13	497-19-8	Dermal: 2210 mg/kg (mouse) Oral: 4090 mg/kg (rat)	NA

<b>Section III. Hazardous ingredients</b>		
WHMIS	Classification	Transport of dangerous goods
 	D2B, Toxic with other effects E (aluminum and zinc surface)	Not regulated

<b>Section IV. Physical data</b>	
Physical state and appearance/Odour	Clear liquid / Odourless
pH	9.5-10.0
Percent volatile	Not applicable
Freezing point	Not available
Boiling point	Not available
Specific gravity	1.12-1.13
Vapour density	Not available
Odour threshold	Not available
Vapour pressure	Not available
Evaporation rate	Not available
Solubility	Soluble

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<b>Section V. Fire or explosion risk</b>			
Flammability conditions			
Water based product. Non flammable.			
Means of extinction			
Does not burn. Use extinguishing media appropriate for surrounding fire.			
Procedures in case of a fire			
Fire fighters should wear full protective clothing, including self-contained breathing equipment.			
Hazardous combustion materials			
Not available			
Flash point	Flammability threshold		Temp auto-ignition
Not available	Minimal	Maximal	Not available
	Not available	Not available	
<b>Section VI. Reactivity data</b>			
Instability conditions		Stable under normal conditions.	
Incompatible products		Slightly reactive with acids (formation of carbon dioxide). Can react violently with red hot aluminum, sulphuric acid and fluorine. Corrodes aluminum.	
Reactivity conditions		Extreme heat (400 ° C)	
Hazardous decomposition products		Carbon dioxide and sodium	

<b>Section VII. Toxicological properties</b>	
<b>Routes of entry</b>	Absorbed through inhalation and ingestion.
Effects of acute	See below
Eye	May cause eye irritation.
Skin	May cause skin irritation.
Inhalation	Vapor may cause respiratory tract and mucous membrane irritation with coughing and shortness of breath (dyspnea), pulmonary edema.
Ingestion	Sodium carbonate ingestion may cause irritation of the digestive tract resulting in nausea, vomiting, diarrhea, thirst, abdominal pain depending on concentration and amount ingested. May also affect the cardiovascular system.



## MATERIAL SAFETY DATA SHEET

ROLF C. HAGEN INC., 20500 TRANSCANADA HWY,  
BAIE D'URFÉ, QUEBEC, H9X 0A2  
CANADA

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Effects of chronic overexposure Do not induce vomiting. Seek medical attention.

### Section VIII. First aid

Eye contact	Check for and remove any contact lenses. Rinse eyes with water for at least 15 minutes. If irritation persists, seek medical attention.
Skin contact	Wash skin with mild soap and water. Take off and wash clothes before to use them again. If irritation persists, seek medical attention.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms appear.
Ingestion	Do not induce vomiting. Never give anything by mouth if victim is rapidly losing consciousness, unconscious or convulsing. Seek medical attention.

### Section IX. Accidental release measures

Person-related safety precautions	Wear appropriate protective equipment.
Measures for environmental protection	Absorb with an inert dry material and place in an appropriate waste disposal container. Prevent entry into sewers, basements or confined areas; dike if needed. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
Measures for cleaning/collecting	Wash with water. Dispose according to local and regional authority requirements.

### Section X. Handling and storage

Keep container tightly closed. Keep container in a cool, well-ventilated area.  
Do not store in an aluminum or zinc container.

### Section XI. Exposure controls and personal protection

Protective clothing	Chemical resistant gloves. Wear impervious protective clothing. Chemical safety goggles.
Engineering controls	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

### Section XII. Disposal considerations

Product recommendation	Dispose of in accordance with federal, provincial and local regulations.
Uncleaned packaging recommendation	Empty containers may be recycled or discarded as general trash.



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### Section XIII. Ecological information

Sodium carbonate: Aquatic toxicity:

Lepomis macrochirus: LC<sub>50</sub>= 300mg/l

Nitzschia : EC<sub>50</sub>= 242 mg/l

Daphnia magna : LC<sub>50</sub>= 347 mg/l (24 hr), 565 mg/l (96 hr)

Prepared by Rolf C. Hagen Inc.  
(514) 457-0914


Validated July 31<sup>st</sup>, 2011

While the company believes the data set forth herein are accurate as the date hereof, the company makes no warranty with respect thereto and expressly disclaims all liability for reliance thereon. Such data are offered solely for your consideration and verification.

<b>Fluval SEA</b>
<b>Calcium Supplement</b>
<b>A8257 / A8258 / A8259</b>

<b>Section I. Product identification and uses</b>	
Product name	Calcium Supplement
CAS #	Mixture
Use	To adjust calcium levels in aquarium water
Supplier	Rolf C. Hagen Inc., 20 500 Trans Canada Hwy, Baie d'Urfé, H9X 0A2
Emergency	Call your local Poison Control Centre

<b>Section II. Composition and information on ingredients</b>			
Ingredients	Conc. (%)	CAS #	LD50
Calcium chloride dihydrate	50-60	10035-04-8	Dermal: 2630 mg/kg (rat) Oral: 1000 mg/kg (rat)

<b>Section III. Hazardous ingredients</b>		
WHMIS	Classification	Transport of dangerous goods
	D2B: Toxic with other effects	Not regulated

<b>Section IV. Physical data</b>	
Physical state and appearance/Odour	Clear liquid / Odourless
pH	7.0 – 8.0
Percent volatile	Not applicable
Freezing point	Not available
Boiling point	Not available
Specific gravity	1.30-1.32
Vapour density	Not available
Odour threshold	Not available
Vapour pressure	Not available
Evaporation rate	Not available
Solubility	Soluble in water

<b>Section V. Fire or explosion risk</b>
Flammability conditions



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Water based product. Non flammable.

Means of extinction

Does not burn. Use extinguishing media appropriate for surrounding fire.

Procedures in case of a fire

Fire fighters should wear full protective clothing, including self-contained breathing equipment.

Hazardous combustion materials

Not available

Flash point

Flammability threshold

Temp auto-ignition

Not available

Minimal

Maximal

Not available

Not available

Not available

### Section VI. Reactivity data

Instability conditions

Stable under normal conditions.

Incompatible products

React violently with bromine trifluoride, or a mixture of boron trioxide and calcium oxide. Sulphuric acid yield hydrogen gas, which is corrosive, irritating and reactive.

Reactivity conditions

Polymerize violently with methyl vinyl.

Hazardous decomposition products

Thermal decomposition: chlorine and calcium oxide fumes.

### Section VII. Toxicological properties

**Routes of entry**

Absorbed through ingestion

Effects of acute

Cause irritation of gastro-intestinal mucosa, with possible ulcerations.

Eye

May cause irritation

Skin

Brief contact is essentially nonirritating to skin. May cause more severe response if skin is abraded (scratched or cut). May cause more severe response on covered skin (under clothing, gloves). Prolonged contact may cause skin irritation, even a burn.

Inhalation

Vapors are unlikely due to physical properties. Mist may cause irritation to upper respiratory tract (nose and throat)

Ingestion

Cause irritation of gastro-intestinal mucosa.

Effects of chronic overexposure

Not available

### Section VIII. First aid

Eye contact

Rinse eyes with water for at least 15 minutes. If irritation persists, seek medical attention.



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Skin contact	Wash skin with mild soap and water. If irritation persists, seek medical attention.
Inhalation	Not applicable
Ingestion	Do not induce vomiting. Seek medical attention.

### Section IX. Accidental release measures

Person-related safety precautions	Wear appropriate protective equipment.
Measures for environmental protection	Not applicable
Measures for cleaning/collecting	Wash with water. Can be flushed into sewer or water courses.

### Section X. Handling and storage

General good house keeping practices.

### Section XI. Exposure controls and personal protection

Protective clothing	Chemical resistant gloves. Chemical safety goggles.
Engineering controls	Not applicable

### Section XII. Disposal considerations

Product recommendation	Dispose of in accordance with federal, provincial and local regulations.
Uncleaned packaging recommendation	Empty containers may be recycled or discarded as general trash.

### Section XIII. Ecological information

Calcium chloride dihydrate: Aquatic toxicity:  
Lepomis macrochirus: LC50= 10650 mg/l

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