



DIVING-GRADE SODA LIME: SPHERASORB®

4 to 8 and 8 to 12 Mesh White to Violet Indicating | SDS Ref MH 14052010SphW

1. Product Identification

Brand Name	Spherasorb®
Description	White to Violet, indicating Carbon Dioxide absorbent for diving applications: Solid white granules formed from a combination of Calcium Hydroxide, Sodium Hydroxide and Zeolite, with a trace of Ethyl Violet indicator.
Synonyms	None
CAS No.	Not applicable to mixtures
Molecular Weight	Not applicable to mixtures
Chemical Formula	Not applicable to mixtures
Product Codes	2181012, 218101
Information Call	1+ (845) 480-5121

2. Composition | Information on Ingredients

Ingredient	CAS No.	Content (% of weight)	Risk Phrase	Hazard Symbol
Calcium Hydroxide	1305-62-0	75-80%	R41	Xi
Sodium Hydroxide	1310-73-2	Under 4%	R35	C
Zeolite	1318-02-1	4-5%	Avoid Dust Inhalation	Xi
Ethyl Violet	2390-59-2	Under 0.1%	R22/41	Xn
Water		13.5-17.5%		

Spherasorb® contains no ozone depleting chemicals and no volatile organic chemical. During manufacture of Spherasorb no ozone depleting chemicals and no volatile organic chemical are used.

3. Hazards Identification

Health Rating	Slight
Flammability Rating	None
Reactivity Rating	Slight

3. Hazards Identification, continued.

Lab Protective Equipment	Dust mask recommended, General purpose rubber gloves, Goggles, Wash after skin contact.
Nature of Hazard (finished mixture)	Xi Irritant
Risk Phrases	R41 Risk of serious damage to eyes. R 36/37/38Irritating to eye, respiratory system and skin.
Safety Phrases	S2 Keep out of reach of children. S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S 37/39 Wear suitable gloves and eye/face protection. S 45 In case of accident or if you feel unwell seek medical advice immediately and show label if possible. Dangerous Component determining label and risk phrases Sodium Hydroxide (under 2% weight).

4. First Aid Measures

Eyes	Get medical aid immediately. Do NOT allow victim to rub or keep eyes closed. Extensive irrigation with water is required (at least 30 minutes).
Skin	Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Remove contaminated clothing in a manner which limits further exposure. Remove contaminated clothing and shoes. Thoroughly clean clothes and shoes before re-use.
Ingestion	Do NOT induce vomiting. If victim is conscious and alert, give copious quantities of water. Never give anything by mouth to an unconscious person. Get medical aid immediately.
Inhalation	Get medical aid immediately. Remove from exposure and move to fresh air immediately.

5. Fire Fighting Measures

Fire	Product is not considered to be a fire hazard. Packaging may be combustible.
Explosion	Not considered to be an explosion hazard.
Extinguishing Media	Use extinguishing media that is appropriate for the environment. Do not get water inside containers and take care of resulting alkaline water.
Flash Point	Not applicable, material is considered to be non-combustible.

NOTE: CO₂ is not suitable as extinguishing media: Exothermic reaction may occur.

6. Accidental Release Measures

Health Precautions	Do not inhale released dust. Use dust mask type 3M 8710E. Use proper personal protective equipment as indicated in Section 8.
Environmental Considerations	Do not discharge into sewer system.

6. Accidental Release Measures, continued.

Spills Leaks	Vacuum or sweep up material and place into a suitable disposal container. Avoid generating dusty conditions. Do not get water inside containers.
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7. Handling + Storage

Handling	Wash thoroughly after handling. Use with adequate ventilation and dust extractor if necessary. Minimize dust generation and accumulation. Do not get in eyes, on skin, or on clothing. Do not ingest or inhale. Do not allow contact with water. Keep from contact with moist air and steam.
Storage	Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from strong acids. Store protected from moisture. Store at temperatures ranging from -20°C to +50°C. Do not allow to desiccate (dry out). Facilities storing or utilizing this material should be equipped with an eyewash facility.

8. Exposure Controls

Follow instructions for use when handling Spherasorb®

Exposure limits of components where relevant.

CAS No.	Material	Occupational Exposure Limit
1305-62-0	Calcium Hydroxide	5 mg/m ³ 8-hour time weighted average
1310-73-2	Sodium Hydroxide	2 mg m ³ short term exposure limit
1318-02-1	Zeolite	3 mg/m ³ 8-hour time weighted average

Personal Protective Equipment

Eyes	Wear chemical safety goggles.
Skin	Wear appropriate gloves to prevent skin exposure.
Clothing	Wear appropriate protective clothing to prevent skin exposure.
Respirators	Not necessary as product is provided in pellet form. If dust is generated, use dust mask type 3M 8710E.

9. Physical + Chemical Properties

Physical State	Solid extrudates of 3 mm diameter.
Appearance	White
Odor	None
pH	Basic in solution.
Bulk Density	830-860 g/l
Solubility in Water	Less than 1 g/l at room temperature.

9. Physical + Chemical Properties, continued.

Decomposition Temperature where Relevant	Calcium Hydroxide decomposes to CaO at approximately 500°C. Sodium Hydroxide decomposes to Na ₂ O at very high temperatures.
Molecular Formula	Mixture of chemical (see section 2).

10. Stability + Reactivity

Chemical Stability	Stable at room temperature. Substance readily absorbs carbon dioxide from air.
Conditions to Avoid	Avoid contact with acids – vigorous reactions are possible. Do not use with trichloroethylene and chloroform. Contact with high concentration of Carbon Dioxide will generate high temperatures.
Materials to Avoid	Hydrogen gas may be formed when in contact with some metals.
Hazardous Decomposition Products	Toxic fumes of sodium oxide, calcium oxide. Low level of Amines may be released from decomposition of Ethyl Violet.

11. Toxicological Information

No toxicity data is available for finished mixture, however

Toxicity of major component:

CAS No.	Material	Acute Toxicity
1305-62-0	Calcium Hydroxide	LD50 rat 7,300 mg/Kg

Toxicity of minor component:

CAS No.	Material	Acute Toxicity
1310-73-2	Sodium Hydroxide	LD50 rabbit 500 mg/Kg (10% solution)
1318-02-1	Zeolite	LD50 rat of 10,000 mg/Kg

12. Ecological Information

Spherasorb® is not expected to significantly bio accumulate. Converts to naturally occurring materials. Do not discharge into lakes, rivers or sewer systems. When handled properly, Spherasorb® is not likely to prove detrimental to the environment.

13. Disposal Consideration

Unused and utilized soda lime can be disposed of as commercial solid waste similar to household waste in accordance with local waste disposal regulations.

European Waste Catalogue Category: Waste packaging, Absorbents, Wiping cloths, filter materials and protective clothing.

EAK No 150203: Absorbents.

14. Transport Information

Spherasorb® is not a dangerous product and may be sent by air, road, sea or post.

Transport Classification	Irritant
UN Number	None
Hazard Class	None
Packaging Group	III Low Danger

15. Regulatory Information

Identification Symbol + Indication of Danger	Xi Irritant
Risk Phrases	R41 Risk of serious damage to eyes. R 36/37/38Irritating to eye, respiratory system and skin.
Dangerous Component determining label and risk phrases	Sodium Hydroxide (under 4 % weight).
Safety Phrases	S2 Keep out of reach of children. S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S 37/39 Wear suitable gloves and eye/face protection. S 45 In case of accident or if you feel unwell seek medical advice immediately and show label if possible.

16. Other Information

The intended use of this product is as an absorbent for Carbon Dioxide. It is suitable for use within anaesthetic equipment.

The above information represents our current state of experience and is provided in good faith. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person. It is the responsibility of the customer to test whether the product is suitable for the purpose intended by the customer.

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