

1 Identification

- **Product identifier**
- **Trade name: SODASORB® 4-8 IND H MED**
- **Application of the substance / the preparation:**
Absorbent
Intermediate product of varied applicability in industry and trade.
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Alltech Associates, Inc.
GRACE Discovery Sciences
2051 Waukegan Road
Deerfield, IL 60015
U. S. A.
- **Information department:**
Health and Safety (9 AM to 5 PM-EST) 1-410-531-4000
MSDS.Davison@grace.com
- **Emergency telephone number:**
Chemtrec North America: +1-800-424-9300
Chemtrec International: +1-703-527-3887
Other Emergencies (24hr): +1-410-531-4000

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS05 Corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

STOT SE 3 H335 May cause respiratory irritation.

- **Label elements**
- **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS05 GHS07

- **Signal word** Danger
- **Hazard-determining components of labeling:**
calcium hydroxide
sodium hydroxide
- **Hazard statements**
Causes skin irritation.
Causes serious eye damage.
May cause respiratory irritation.
- **Precautionary statements**
Avoid breathing dust/fume/gas/mist/vapors/spray
Wear protective gloves.

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Printing date 02/20/2015

Version: 3.0

Reviewed on 02/12/2015

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Wear eye protection / face protection.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a poison center/doctor.

Specific treatment (see on this label).

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**· **NFPA ratings (scale 0 - 4)**Health = 2
Fire = 0
Reactivity = 0· **HMIS-ratings (scale 0 - 4)**Health = 2
Fire = 0
Reactivity = 0**3 Composition/information on ingredients**· **Chemical characterization: Mixtures**· **Description:** Mixture of the substances listed below with nonhazardous additions.· **List of Dangerous Components**

1305-62-0	calcium hydroxide ⚠ Eye Dam. 1, H318; ⚠ Skin Irrit. 2, H315; STOT SE 3, H335	70-90%
1310-73-2	sodium hydroxide ⚠ Met. Corr.1, H290; Skin Corr. 1A, H314	< 4%

4 First-aid measures· **After inhalation:**

In case of unconsciousness place patient stably in the recovery position for transportation.

· **After skin contact:**

Immediately wash with water at least for 30 minutes and rinse thoroughly.

If skin irritation occur, consult a doctor.

· **After eye contact:**

Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Then consult a doctor.

· **After swallowing:** Do not induce vomiting; immediately call for medical help.· **Most important symptoms and effects, both acute and delayed**

No further relevant information available.

· **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

5 Fire-fighting measures· **Suitable extinguishing agents:**CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Use fire fighting measures that suit the environment.

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- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Hazardous combustion products** No further relevant information available.
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**
Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:** Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:**
Protect from frost.
Store in dry conditions.

8 Exposure controls/personal protection

- **Components with limit values that require monitoring at the workplace:**

1305-62-0 calcium hydroxide

PEL	Long-term value: 15* 5** mg/m ³ *total dust **respirable fraction
REL	Long-term value: 5 mg/m ³
TLV	Long-term value: 5 mg/m ³

1310-73-2 sodium hydroxide

PEL	Long-term value: 2 mg/m ³
REL	Ceiling limit value: 2 mg/m ³
TLV	Ceiling limit value: 2 mg/m ³

7732-18-5 water, distilled, or of similar purity

PEL	Long-term value: - OSHA TWA: NONE ESTABLISHED
TLV	Long-term value: - ACGIH TWA: NONE ESTABLISHED

- **Additional information:** Valid lists at time of creation were used as basis.
- **Exposure controls**
- **Appropriate engineering controls** No further relevant information available.

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· **Personal protective equipment:**

· **General protective and hygienic measures:**

- Keep away from foodstuffs, beverages and feed.
- Immediately remove all soiled and contaminated clothing.
- Wash hands before breaks and at the end of work.
- Do not inhale gases / fumes / aerosols.
- Avoid contact with the skin.
- Prevent contact with the eyes and skin.

· **Breathing equipment:**

In case of brief exposure use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air. As appropriate for the employee exposure, use a NIOSH approved respirator and cartridge.
As appropriate for the employee exposure, use a NIOSH approved respirator and cartridge.

· **Protection of hands:**



Protective gloves

Check protective gloves prior to each use for their proper condition.
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
Recommended thickness of the material: ≥ 0.5 mm
PVC gloves

· **For the permanent contact gloves made of the following materials are suitable: PVC gloves**

· **Eye protection:**



Tightly sealed goggles

· **Body protection: Protective work clothing**

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form:	Pellets
Color:	Whitish

· Odor:	Characteristic
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· pH-value:	Not applicable.
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· **Change in condition**

Melting point/Melting range:	Not determined.
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<ul style="list-style-type: none"> · Boiling point/Boiling range: Not available. · Conditions of flammability 	
<ul style="list-style-type: none"> · Flash point: Not applicable. 	
<ul style="list-style-type: none"> · Flammability (solid, gaseous): Not determined. · Ignition temperature: Not available. · Decomposition temperature: Not available. 	
<ul style="list-style-type: none"> · Auto igniting: Product is not self-igniting. 	
<ul style="list-style-type: none"> · Danger of explosion: Product does not present an explosion hazard. · Explosion limits: <ul style="list-style-type: none"> Lower: - Vol % Upper: - Vol % · Explosion data - sensitivity to mechanical impact Not determined. · Explosion data - sensitivity to static discharge Not determined. 	
<ul style="list-style-type: none"> · Vapor pressure: Not applicable. 	
<ul style="list-style-type: none"> · Density: Not determined. · Specific Gravity Not available · Vapour density Not applicable. 	
<ul style="list-style-type: none"> · Evaporation rate Not applicable. 	
<ul style="list-style-type: none"> · Solubility in / Miscibility with Water: Slightly soluble. · Coefficient of water/oil distribution: Not available. 	
<ul style="list-style-type: none"> · Viscosity: <ul style="list-style-type: none"> Dynamic: Not applicable. Kinematic: Not applicable. 	
<ul style="list-style-type: none"> · Other information No further relevant information available. 	

10 Stability and reactivity

- **Chemical stability** No decomposition if used according to specifications.
- **Possibility of hazardous reactions**
May react with trichloroethylene, producing dichloroacetylene, carbon monoxide and phosgene.
- **Conditions to avoid**
In case of thermal decomposition caused by smouldering and incomplete combustion toxic fumes may be developed.
- **Incompatible materials:** Protect from contamination.
- **Hazardous decomposition products:** No dangerous decomposition products known.

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11 Toxicological information

- Information on the likely routes of exposure
- Delayed and immediate effects and chronic effects from short or long term exposure
- Information on toxicological effects
- Acute toxicity:

· LD/LC50 values that are relevant for classification:		
1305-62-0 calcium hydroxide		
Oral	LD50	>2000 mg/kg (rat) (OECD 425) ECHA 2011
Dermal	LD50	>2500 mg/kg (rabbit) (OECD 402) ECHA 2011
1310-73-2 sodium hydroxide		
Dermal	LD50	1350 mg/kg (rabbit) IUCLID Dataset 18-Feb-2000

- Primary irritant effect:

- on the skin:
Irritant to skin and mucous membranes.

Irritation of skin	IS	>60 (in-vitro) (OECD 425) comp. product GRACE
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1305-62-0 calcium hydroxide		
Irritation of skin	IS	irritating (rabbit) (OECD 404) ECHA 2011
1310-73-2 sodium hydroxide		
Irritation of skin	IS	5.6 (rabbit) (§ 1500.41 in Federal Register Vol. 38, No. 187) ECHA 2014

- on the eye:
Strong irritant with the danger of severe eye injury.

1305-62-0 calcium hydroxide		
Irritation of eyes	IS	irritating (rabbit) (OECD 405) ECHA 2011
1310-73-2 sodium hydroxide		
Irritation of eyes	IS	>2.25 (rabbit) (OECD 405) ECHA 2014

- Respiratory sensitization No further relevant information available.

- Skin sensitization

1310-73-2 sodium hydroxide		
Sensitization	SI	0 (human being) not sensitizing Echa 2014

- Additional toxicological information:

- Carcinogenic categories

· IARC (International Agency for Research on Cancer)
None of the ingredients is listed.

· NTP (National Toxicology Program)
None of the ingredients is listed.

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<ul style="list-style-type: none"> · OSHA-Ca (Occupational Safety & Health Administration)
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None of the ingredients is listed.

<ul style="list-style-type: none"> · CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
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<ul style="list-style-type: none"> · Carcinogenicity No further relevant information available.

<ul style="list-style-type: none"> · Mutagenicity

<ul style="list-style-type: none"> <ul style="list-style-type: none"> · 1310-73-2 sodium hydroxide

<table border="1"> <tr> <td>AMES Test</td> <td>negative mg/plate (Salmonella typhimurium) Echa 2014</td> </tr> </table>	AMES Test	negative mg/plate (Salmonella typhimurium) Echa 2014
AMES Test	negative mg/plate (Salmonella typhimurium) Echa 2014	

<ul style="list-style-type: none"> · Reproductive toxicity No further relevant information available.

<ul style="list-style-type: none"> · Specific target organ toxicity (single exposure) No further relevant information available.
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<ul style="list-style-type: none"> · Specific target organ toxicity (repeated exposure) No further relevant information available.
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<ul style="list-style-type: none"> · Aspiration hazard No further relevant information available.

12 Ecological information

<ul style="list-style-type: none"> · Toxicity

<ul style="list-style-type: none"> · Aquatic toxicity:
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<ul style="list-style-type: none"> <ul style="list-style-type: none"> · Fish toxicity
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<ul style="list-style-type: none"> <ul style="list-style-type: none"> <ul style="list-style-type: none"> · 1305-62-0 calcium hydroxide
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<table border="1"> <tr> <td>LC50 (96 h)</td> <td>160 mg/l (Gambusia affinis) IUCLID Dataset 18-Feb-2000 50.6 mg/l (Oncorhynchus mykiss) ECHA 2011</td> </tr> </table>	LC50 (96 h)	160 mg/l (Gambusia affinis) IUCLID Dataset 18-Feb-2000 50.6 mg/l (Oncorhynchus mykiss) ECHA 2011
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<ul style="list-style-type: none"> <ul style="list-style-type: none"> <ul style="list-style-type: none"> · 1310-73-2 sodium hydroxide

<table border="1"> <tr> <td>LC50 (48h)</td> <td>189 mg/l (Leuciscus idus) IUCLID Dataset (18/Feb/2000)</td> </tr> <tr> <td>LC50 (96 h)</td> <td>125 mg/l (Gambusia affinis) MSDS Merck 2014</td> </tr> </table>	LC50 (48h)	189 mg/l (Leuciscus idus) IUCLID Dataset (18/Feb/2000)	LC50 (96 h)	125 mg/l (Gambusia affinis) MSDS Merck 2014
LC50 (48h)	189 mg/l (Leuciscus idus) IUCLID Dataset (18/Feb/2000)			
LC50 (96 h)	125 mg/l (Gambusia affinis) MSDS Merck 2014			

<ul style="list-style-type: none"> <ul style="list-style-type: none"> · Water flea toxicity
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<ul style="list-style-type: none"> <ul style="list-style-type: none"> <ul style="list-style-type: none"> · 1305-62-0 calcium hydroxide
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<table border="1"> <tr> <td>EC50 (48 h)</td> <td>49.1 mg/l (Daphnia magna) (OECD 202) ECHA 2011</td> </tr> </table>	EC50 (48 h)	49.1 mg/l (Daphnia magna) (OECD 202) ECHA 2011
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<ul style="list-style-type: none"> <ul style="list-style-type: none"> <ul style="list-style-type: none"> · 1310-73-2 sodium hydroxide

<table border="1"> <tr> <td>EC50 (48 h)</td> <td>100 mg/l (Daphnia magna) IUCLID Dataset 18-Feb-2000</td> </tr> </table>	EC50 (48 h)	100 mg/l (Daphnia magna) IUCLID Dataset 18-Feb-2000
EC50 (48 h)	100 mg/l (Daphnia magna) IUCLID Dataset 18-Feb-2000	

<ul style="list-style-type: none"> <ul style="list-style-type: none"> · Algae toxicity

<ul style="list-style-type: none"> <ul style="list-style-type: none"> <ul style="list-style-type: none"> · 1305-62-0 calcium hydroxide
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<table border="1"> <tr> <td>EC10 (72 h)</td> <td>79.22 mg/l (Pseudokirchneriella subcapitata) (OECD 201) crangon septemspinosa</td> </tr> </table>	EC10 (72 h)	79.22 mg/l (Pseudokirchneriella subcapitata) (OECD 201) crangon septemspinosa
EC10 (72 h)	79.22 mg/l (Pseudokirchneriella subcapitata) (OECD 201) crangon septemspinosa	

<ul style="list-style-type: none"> <ul style="list-style-type: none"> · Bacterial toxicity

<ul style="list-style-type: none"> <ul style="list-style-type: none"> <ul style="list-style-type: none"> · 1310-73-2 sodium hydroxide

<table border="1"> <tr> <td>EC50 (15 min)</td> <td>22 mg/l (Photobacterium phosphoreum) MSDS Merck 2014</td> </tr> </table>	EC50 (15 min)	22 mg/l (Photobacterium phosphoreum) MSDS Merck 2014
EC50 (15 min)	22 mg/l (Photobacterium phosphoreum) MSDS Merck 2014	

<ul style="list-style-type: none"> · Persistence and degradability No further relevant information available.

<ul style="list-style-type: none"> · Bioaccumulative potential No further relevant information available.

<ul style="list-style-type: none"> · Mobility in soil No further relevant information available.
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- **Additional ecological information:**
- **General notes:**
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

14 Transport information

· UN-Number	
· DOT, ADR, ADN, IMDG, IATA	None
· UN proper shipping name	
· DOT, ADR, ADN, IMDG, IATA	None
· Transport hazard class(es)	
· DOT, ADR, ADN, IMDG, IATA	
· Class	None
· Packing group	
· DOT, ADR, IMDG, IATA	None
· Environmental hazards:	Not applicable.
· Special precautions for user	Not applicable.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· DOT	
· Quantity limitations	On passenger aircraft/rail: -
· IATA	
· Remarks:	GRACE recommends CARGO AIRCRAFT only.

15 Regulatory information

· SARA
· SARA 302/304
None of the ingredients is listed.
· SARA 313
None of the ingredients is listed.
· SARA 311/312 Immediate (Acute) Health Hazard.
· TSCA (Toxic Substances Control Act):
All ingredients are listed.

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· Proposition 65

· Chemicals known to cause cancer:
None of the ingredients is listed.
· Chemicals known to cause reproductive toxicity for females:
None of the ingredients is listed.
· Chemicals known to cause reproductive toxicity for males:
None of the ingredients is listed.
· Chemicals known to cause developmental toxicity:
None of the ingredients is listed.

· Carcinogenic categories

· EPA (Environmental Protection Agency)
None of the ingredients is listed.
· TLV (Threshold Limit Value established by ACGIH)
None of the ingredients is listed.
· NIOSH-Ca (National Institute for Occupational Safety and Health)
None of the ingredients is listed.

- **Canadian DSL** Compliant.
- **Canadian NDSL** Not available.

· European EINECS
All ingredients are listed.
· Philippines Inventory of Chemicals and Chemical Substances PICCS
All ingredients are listed.
· Inventory of the Existing Chemical Substances manufactured or imported in China IECSC
All ingredients are listed.
· Australian Inventory of Chemical Substances AICS
All ingredients are listed.

· Existing and New Chemical Substance List ENCS		
1305-62-0	calcium hydroxide	1-181
1310-73-2	sodium hydroxide	1-410

· Korean Existing Chemical Inventory KECI		
1305-62-0	calcium hydroxide	KE-04518
1310-73-2	sodium hydroxide	KE-31487

· GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms



GHS05 GHS07

· Signal word Danger

· Hazard-determining components of labeling:

calcium hydroxide
sodium hydroxide

· Hazard statements

Causes skin irritation.
Causes serious eye damage.
May cause respiratory irritation.

(Contd. on page 10)

Trade name: SODASORB® 4-8 IND H MED

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Precautionary statements

Avoid breathing dust/fume/gas/mist/vapors/spray

Wear protective gloves.

Wear eye protection / face protection.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a poison center/doctor.

Specific treatment (see on this label).

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant phrases

H290 May be corrosive to metals.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H335 May cause respiratory irritation.

Department issuing SDS: GRACE Safety & Health Department**Other information:** MADE IN USA**Date of preparation / last revision** 02/20/2015 / 2.9**The first date of preparation** 01/28/2015**Number of revision times and the latest revision date** 3.0 / 02/12/2015**Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

Met. Corr. 1: Corrosive to metals, Hazard Category 1

Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3