

87A1 - Alginat

Material number 087A1

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1. Product and company identification**Product identifier**

Trade name: 87A1 - Alginat

Relevant identified uses of the substance or mixture and uses advised againstGeneral use: For casts and for scar treatment for orthopedic procedures.
Reserved for industrial and professional use.**Details of the supplier of the safety data sheet**Company name: Otto Bock Health Care
Street/POB-No.: 3820 W. Great Lakes Drive
Postal Code, city: Salt Lake City, UT 84120
USAWWW: www.ottobockus.com

Telephone: +1 (801) 956-2400

Telefax: +1 (801) 956-2401

Dept. responsible for information:

Quality Department,
Telephone: +1 (801) 954-2304 (7 AM – 3 PM, Mountain Time),
Email: USRegulatory@ottobock.comAdditional information: Corporate headquarters:
Ottobock SE & Co. KGaA
Max-Näder-Straße 15
Duderstadt
Germany**Emergency phone number****CHEMTREC, Telephone: +1 (800) 424-9300****2. Hazards identification****Emergency overview**Appearance: Form: solid, powder
Color: varying colors: light-green or greenish

Odor: with spearmint odor

Classification: Eye Irritation - Category 2A; Specific Target Organ Toxicity (Repeated Exposure) - Category 2;

Hazard symbols:



Signal word:

Warning

Hazard statements:

Causes serious eye irritation.

May cause damage to organs through prolonged or repeated exposure.

Precautionary statements:

- Do not breathe dust.
- Wear protective gloves/protective clothing/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.
- Get medical advice/attention if you feel unwell.
- Dispose of contents/container to hazardous or special waste collection point.

Regulatory status

This material is considered hazardous by the U.S. OSHA Hazard Communication Standard (29 CFR 1910.1200) and SIMDUT in Canada.

Hazards not otherwise classified

Extended inhalation at levels above the workplace limit value can cause irreversible damage to the lungs (silicosis).
see section 11: Toxicological information

3. Composition / Information on ingredients

Chemical characterization: mixture contains Silicon dioxide (< 20 %) and Magnesium oxide (< 7 %)

Relevant ingredients:

CAS No.	Designation	Content	Classification
CAS 14464-46-1	Cristobalite	< 55 %	Specific Target Organ Toxicity (Repeated Exposure) - Category 2.
CAS 14808-60-7	Quartz (SiO ₂)	< 5 %	Specific Target Organ Toxicity (Single Exposure) - Category 2. Specific Target Organ Toxicity (Repeated Exposure) - Category 2.
CAS 10101-41-4	Calcium sulfate, dihydrate	< 15 %	not applicable
CAS 9005-36-1	Potassium alginate	< 15 %	not applicable
CAS 7722-88-5	Tetrasodium pyrophosphate	< 3 %	Acute Toxicity - oral - Category 4. Eye Damage - Category 1.

4. First aid measures

- In case of inhalation: Provide fresh air.
If large amounts of dust/spray are inhaled, drink plenty of water immediately.
Seek medical attention.
- Following skin contact: Wash with plenty of water. In case of skin reactions, consult a physician.
- After eye contact: Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart.
In case of troubles or persistent symptoms, consult an ophthalmologist.
- After swallowing: Repeatedly drink water. Seek medical attention.

Most important symptoms/effects, acute and delayed

Causes serious eye irritation.
Extended inhalation at levels above the workplace limit value can cause irreversible damage to the lungs (silicosis).

Information to physician

Treat symptomatically.

5. Fire fighting measures

Flash point/flash point range:

No data available

Auto-ignition temperature: No data available

Suitable extinguishing media:

Product is non-combustible. Extinguishing materials should therefore be selected according to surroundings.

Specific hazards arising from the chemical

Danger of dust explosion.

On heating or in case of fire toxic gases may form.

Protective equipment and precautions for firefighters:

In case of fire, use a suitable breathing apparatus.

6. Accidental release measures

Personal precautions:

Provide fresh air. Avoid generation of dust.

In case of dust formation: Do not breathe dust.

Wear appropriate protective equipment. Avoid contact with eyes.

Environmental precautions:

Do not allow to penetrate into soil, waterbodies or drains.

Methods for clean-up:

Keep wet with water. Take up dust-free and set down dust-free.

Large amounts: Withdraw by suction. (High efficiency particulate air filter (HEPA filter))

Place in appropriate containers for disposal. Final cleaning.

7. Handling and storage**Handling**

Advices on safe handling: Provide good ventilation and/or an exhaust system in the work area. Avoid generation of dust.

In case of dust formation: Do not breathe dust. Avoid contact with eyes.

Wear appropriate protective equipment.

Precautions against fire and explosion:

Avoid generation of dust. Danger of dust explosion.

Storage

Requirements for storerooms and containers:

Protect from moisture contamination.

Keep container tightly closed in a cool place.

Keep at temperature not exceeding 140 °F.

Hints on joint storage:

Keep away from food, drink and animal feedingstuffs.

Further details:

Reserved for industrial and professional use.

8. Exposure controls / personal protection

Exposure guidelines

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
14464-46-1	Cristobalite	USA: ACGIH: TWA	0.025 mg/m ³
		USA: NIOSH: TWA	0.05 mg/m ³
		USA: OSHA: TWA	15 mg/m ³ /% SiO ₂ + 2
		USA: OSHA: TWA	5 mg/m ³ /% SiO ₂ + 2
14808-60-7	Quartz (SiO ₂)	USA: ACGIH: TWA	0.025 mg/m ³
		USA: NIOSH: TWA	0.05 mg/m ³
		USA: OSHA: TWA	10 mg/m ³ /% SiO ₂ + 2
		USA: OSHA: TWA	250 mppcf/%SiO ₂ +5
		USA: OSHA: TWA	30 mg/m ³ /% SiO ₂ + 2
7631-86-9	Silicon dioxide	USA: NIOSH: TWA	6 mg/m ³
		USA: OSHA: TWA	20 mppcf
		USA: OSHA: TWA	80 mg/m ³
10101-41-4	Calcium sulfate, dihydrate	USA: ACGIH: TWA	10 mg/m ³
		USA: OSHA: TWA	15 mg/m ³
		USA: OSHA: TWA	5 mg/m ³
9005-36-1	Potassium alginate	USA: ACGIH: TWA	10 mg/m ³
		USA: OSHA: TWA	15 mg/m ³
1309-48-4	Magnesium oxide	USA: ACGIH: TWA	10 mg/m ³
		USA: OSHA: TWA	15 mg/m ³
7722-88-5	Tetrasodium pyrophosphate	USA: NIOSH: TWA	5 mg/m ³

Engineering controls

Provide good ventilation and/or an exhaust system in the work area.
See also information in chapter 7, section storage.

Personal protection equipment (PPE)

- Eye/face protection: Tightly sealed goggles according to OSHA Standard - 29 CFR: 1910.133 or ANSI Z87.1-2010 or face protection shield.
- Skin protection: Wear suitable protective clothing.
Protective gloves according to OSHA Standard - 29 CFR: 1910.138.
Glove material: Rubber-Breakthrough time: < 480 min.
Observe glove manufacturer's instructions concerning penetrability and breakthrough time.
- Respiratory protection: Respiratory protection must be worn whenever the TLV (WEL) levels have been exceeded.
Particulates filter P2 according to OSHA Standard - 29 CFR: 1910.134 or ANSI Z88.2.
- General hygiene considerations:
Do not breathe dust. Avoid contact with eyes.
Wash hands before breaks and after work.
Provide a conveniently located eye rinse station.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance:	Form: solid, powder Color: varying colors: light-green or greenish
Odor:	with spearmint odor
Odor threshold:	No data available
pH value:	No data available
Melting point/freezing point:	No data available
Initial boiling point and boiling range:	No data available
Flash point/flash point range:	No data available
Evaporation rate:	No data available
Flammability:	No data available
Explosion limits:	No data available
Vapor pressure:	No data available
Vapor density:	No data available
Density:	0.3 g/cm ³
Water solubility:	partially soluble
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	No data available
Thermal decomposition:	No data available
Additional information:	No data available

10. Stability and reactivity

Reactivity:	refer to 10.3
Chemical stability:	Stable under recommended storage conditions.
Possibility of hazardous reactions	Danger of dust explosion.
Conditions to avoid:	Avoid formation of dust/air mixtures because of explosion hazard. Protect from moisture contamination. Keep at temperature not exceeding 140 °F.
Incompatible materials:	Water, Hydrofluoric acid
Hazardous decomposition products:	On heating or in case of fire toxic gases may form.
Thermal decomposition:	No data available

11. Toxicological information

Toxicological tests

Toxicological effects: Acute toxicity (oral): Lack of data.
 Acute toxicity (dermal): Lack of data.
 Acute toxicity (inhalative): Lack of data.
 Skin corrosion/irritation: Lack of data.
 Serious eye damage/irritation: Eye Irritation - Category 2A = Causes serious eye irritation.
 Sensitisation to the respiratory tract: Lack of data.
 Skin sensitisation: Lack of data.
 Germ cell mutagenicity/Genotoxicity: Lack of data.
 Carcinogenicity: Lack of data.
 Reproductive toxicity: Lack of data.
 Effects on or via lactation: Lack of data.
 Specific target organ toxicity (single exposure): Lack of data.
 Specific target organ toxicity (repeated exposure): Specific Target Organ Toxicity (Repeated Exposure) - Category 2 = May cause damage to organs through prolonged or repeated exposure.
 Aspiration hazard: Lack of data.

Other information: Extended inhalation at levels above the workplace limit value can cause irreversible damage to the lungs (silicosis).

12. Ecological information

Ecotoxicity

Further details: No data available

Mobility in soil

No data available

Persistence and degradability

Further details: No data available

Additional ecological information

General information: Do not allow to penetrate into soil, waterbodies or drains.

13. Disposal considerations

Product

Recommendation: Dispose of waste according to applicable legislation.

Contaminated packaging

Recommendation: Dispose of waste according to applicable legislation.
 Non-contaminated packages may be recycled.

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14. Transport information**USA: Department of Transportation (DOT)**

Proper shipping name: Not restricted

Sea transport (IMDG)

Proper shipping name: Not restricted

Marine pollutant: no

Air transport (IATA)

Proper shipping name: Not restricted

Further information

No dangerous good in sense of these transport regulations.

15. Regulatory information

National regulations - U.S. Federal Regulations

Cristobalite:	TSCA Inventory: listed TSCA HPVC: not listed Carcinogen Status: IARC Rating: not listed OSHA Carcinogen: not listed NTP Rating: listed
Quartz (SiO ₂):	TSCA Inventory: listed TSCA HPVC: not listed Carcinogen Status: IARC Rating: Group 1 OSHA Carcinogen: not listed NTP Rating: listed NIOSH Recommendations: Occupational Health Guideline: 0553
Silicon dioxide:	TSCA Inventory: listed TSCA HPVC: not listed Carcinogen Status: IARC Rating: Group 3 OSHA Carcinogen: not listed NTP Rating: not listed NIOSH Recommendations: Occupational Health Guideline: 0552
Calcium sulfate, dihydrate:	TSCA Inventory: not listed
Potassium alginate:	TSCA Inventory: listed; EPA flags XU TSCA HPVC: not listed
Magnesium oxide:	TSCA Inventory: listed TSCA HPVC: not listed NIOSH Recommendations: Occupational Health Guideline: 0374
Tetrasodium pyrophosphate:	TSCA Inventory: listed TSCA HPVC: not listed NIOSH Recommendations: Occupational Health Guideline: 0606

National regulations - U.S. State Regulations

Cristobalite: California Proposition 65: cancer
Rhode Island HSL: listed

Quartz (SiO₂): California Proposition 65: cancer
Rhode Island HSL: listed

Tetrasodium pyrophosphate: California Proposition 65 code: not listed
Idaho Air Pollutant List:
Title 585: AAC: 0.25 - EL: 0.333 - OEL: 5 - Title 586: -
Massachusetts Haz. Substance codes: 4
Minnesota Haz. Substance:
Codes: A - Ratings: --
Pennsylvania Haz. Substance code: -

National regulations - Great Britain

Hazchem-Code: -

16. Other information

Text for labeling: Contains < 55 % Cristobalite, < 5 % Quartz (SiO₂), < 15 % Calcium sulfate, dihydrate, < 15 % Potassium alginate, < 3 % Tetrasodium pyrophosphate. Safety data sheet available on request.

Hazard rating systems:



NFPA Hazard Rating:
Health: 2 (Moderate)
Fire: 0 (Minimal)
Reactivity: 0 (Minimal)

HMIS Version III Rating:
Health: 2 (Moderate) - Chronic effects
Flammability: 0 (Minimal)
Physical Hazard: 0 (Minimal)
Personal Protection: X = Consult your supervisor

HEALTH	*	2
FLAMMABILITY		0
PHYSICAL HAZARD		0
		X

Reason of change: Changes in section 1.3: Corporate headquarters

Date of first version: 8/21/2008

Department issuing data sheet

Contact person: see section 1: Dept. responsible for information

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.