

Issuing Date 21-Aug-2024

Revision date 21-Aug-2024

Revision Number 1

1. Identification

Product identifier

Product Name Sodium Alginate

Other means of identification

Product Code(s) A-0452

Synonyms Sodium Alginate

Recommended use of the chemical and restrictions on use

Recommended use Laboratory chemicals

Restrictions on use Not for use in human or animal

Details of the supplier of the safety data sheet

Manufacturer Address

3D Systems, Inc.
333 Three D Systems Circle
Rock Hill, South Carolina 29730 U.S.A.

E-mail support.allevi3d@3dsystems.com

Emergency telephone number

Company Phone Number +1 (833) 550 3673

Emergency Telephone Chemtrec - 800.424.9300 (Toll Free)
+1 703-527-3887

2. Hazard(s) identification

Classification

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Hazards not otherwise classified (HNOC)

Not applicable

Label elements

Hazard statements

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Emergency Overview The product contains no substances which at their given concentration, are considered to be hazardous to health.

Precautionary Statements - Prevention

None

Precautionary Statements - Response

None

Precautionary Statements - Storage

None

Precautionary Statements - Disposal

None

Other information

Mild eye irritation. May be harmful if swallowed.

3. Composition/information on ingredients

Substance

Chemical name	CAS No	Weight-%
Alginic acid, sodium salt	9005-38-3	100

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. First-aid measures

Description of first aid measures

Inhalation

If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

Eye contact

In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Skin contact

Remove contaminated clothing and shoes. IF ON SKIN: Wash with plenty of soap and water. In the case of skin irritation or allergic reactions see a physician.

Ingestion

Clean mouth with water and drink afterwards plenty of water. If swallowed, seek medical advice immediately and show this container or label.

Most important symptoms and effects, both acute and delayed

Symptoms

No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. Fire-fighting measures

Suitable Extinguishing Media Large Fire	Dry chemical, CO2 or water spray. CAUTION: Use of water spray when fighting fire may be inefficient.
Unsuitable extinguishing media	Do not scatter spilled material with high pressure water streams.
Specific hazards arising from the chemical	Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).
Explosion data	
Sensitivity to mechanical impact	No information available.
Sensitivity to static discharge	None.
Special protective equipment and precautions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid breathing (dust, vapor, mist, gas). See Section 8 for information on appropriate personal protective equipment.

Methods and material for containment and cleaning up

Methods for containment	Avoid generation of dust.
Methods for cleaning up	Use of a dust mask is recommended during cleaning surfaces with dust. Use appropriate personal protective equipment (PPE). Carefully shovel or sweep up spilled material and place in suitable container. Avoid generating dust. Place spilled material in a designated, labeled waste container.
Prevention of secondary hazards	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

7. Handling and storage

Precautions for safe handling

Advice on safe handling Ensure adequate ventilation. Use in a chemical fume hood, with air supplied by an independent system. Avoid contact with eyes, skin and clothing. Avoid breathing (dust, vapor, mist, gas).

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a cool, well-ventilated place. Store in the dark. Store away from heat, light and moisture.

8. Exposure controls/personal protection

Control parameters

Exposure Limits This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Appropriate engineering controls

Engineering controls Showers
 Eyewash stations
 Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection May cause eye irritation. Wear safety glasses with side shields (or goggles).

Hand protection Wash hands thoroughly after handling. Impervious gloves.

Gloves			
Duration of contact	PPE - Glove material	Glove thickness	Break through time
Short term	Nitrile rubber	8 mil	Not Tested

Skin and body protection Wear suitable coveralls to prevent exposure to the skin.

Respiratory protection Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Ensure adequate ventilation.

Environmental exposure controls Do not allow to enter into soil/subsoil. Avoid release to the environment. Prevent product from entering drains.

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state Solid
Appearance No information available
Color White
Odor Odorless
Odor threshold No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	6.0 - 8.0	1% Solution

Melting point / freezing point	No data available	-
Boiling point / boiling range	No data available	-
Flash point	No data available	-
Evaporation rate	No data available	-
Flammability (solid, gas)	No data available	-
Flammability Limit in Air		-
Upper flammability or explosive limits	-	
Lower flammability or explosive limits	-	
Vapor pressure	No data available	-
Relative vapor density	No data available	-
Relative density	No data available	-
Water solubility	Soluble in water	-
Solubility(ies)	insoluble in Organic solvents	-
Partition coefficient	No data available	-
Autoignition temperature	No data available	-
Decomposition temperature		-
Kinematic viscosity	No data available	-
Dynamic viscosity	No data available	-
<u>Other information</u>		
Explosive properties	No information available	
Oxidizing properties	No information available	
Softening point	No information available	
Molecular weight	No information available	
VOC content	No information available	
Liquid Density	No information available	
Bulk density	No information available	
Sensitivity to mechanical impact	No information available	
-		

10. Stability and reactivity

Reactivity	No information available.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	No information available.
Conditions to avoid	Keep away from heat. Humidity.
Incompatible materials	Strong oxidizing agents, strong acids, and strong bases.
Hazardous decomposition products	Thermal decomposition can lead to release of irritating and toxic gases and vapors.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Specific test data for the substance or mixture is not available.
-------------------	---

Eye contact Specific test data for the substance or mixture is not available.

Skin contact Specific test data for the substance or mixture is not available.

Ingestion May be harmful if swallowed.

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Acute toxicity

Numerical measures of toxicity

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Alginic acid, sodium salt 9005-38-3	> 5 g/kg (Rat)	-	-

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation No information available.

Serious eye damage/eye irritation Mild eye irritation.

Respiratory or skin sensitization No information available.

Germ cell mutagenicity No information available.

Carcinogenicity No information available.

Reproductive toxicity No information available.

STOT - single exposure No information available.

STOT - repeated exposure No information available.

Aspiration hazard No information available.

Other adverse effects No information available.

Interactive effects No information available.

12. Ecological information

Ecotoxicity	The environmental impact of this product has not been fully investigated.
Persistence and degradability	No information available.
Bioaccumulation	There is no data for this product.
Other adverse effects	No information available.

13. Disposal considerations

Waste treatment methods

Waste from residues/unused products	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Do not reuse empty containers.

14. Transport information

<u>DOT</u>	Not regulated
<u>TDG</u>	Not regulated
<u>IATA</u>	Not regulated
<u>IMDG</u>	Not regulated
<u>ADR</u>	Not regulated

15. Regulatory information

International Inventories

TSCA	Listed (Active) or exempt.
-------------	----------------------------

U.S. - TSCA (Toxic Substances Control Act) - Section 5(a)(2) - Chemicals with Significant New Use Rules (SNURs)

None

TSCA Section 12(b) Export notification: None

TSCA Section 6 restricted substances

This formulation DO NOT contain substances listed under the EPA Regulation of Persistent, Bioaccumulative, and Toxic Chemicals Under TSCA Section 6(h).

DSL/NDSL	Listed or exempt.
EINECS/ELINCS	Listed or exempt.
ENCS	Listed or exempt.
IECSC	Listed or exempt.
KECL	Listed or exempt.
PICCS	Listed or exempt.
AICS	Listed or exempt.
TCSI	Listed or exempt.
NZIoC	Listed or exempt.

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

NZIoC - New Zealand Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

This product does not contain any substances regulated under applicable state right-to-know regulations

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information

NFPA	Health hazards 0	Flammability 0	Instability 0	Special hazards -
HMIS	Health hazards 1	Flammability 0	Physical hazards 0	Personal protection X

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend Section 8: Exposure controls/personal protection

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation

Key literature references and sources for data used to compile the SDS

- Agency for Toxic Substances and Disease Registry (ATSDR)
- U.S. Environmental Protection Agency ChemView Database
- European Food Safety Authority (EFSA)
- EPA (Environmental Protection Agency)
- Acute Exposure Guideline Level(s) (AEGL(s))
- U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act
- U.S. Environmental Protection Agency High Production Volume Chemicals
- Food Research Journal
- Hazardous Substance Database
- International Uniform Chemical Information Database (IUCLID)
- National Institute of Technology and Evaluation (NITE)
- Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)
- NIOSH (National Institute for Occupational Safety and Health)
- National Library of Medicine's ChemID Plus (NLM CIP)
- National Library of Medicine's PubMed database (NLM PUBMED)
- National Toxicology Program (NTP)
- New Zealand's Chemical Classification and Information Database (CCID)
- Organization for Economic Co-operation and Development Environment, Health, and Safety Publications
- Organization for Economic Co-operation and Development High Production Volume Chemicals Program
- Organization for Economic Co-operation and Development Screening Information Data Set
- World Health Organization

Issuing Date	21-Aug-2024
Revision date	21-Aug-2024
Revision Note	No information available.

Disclaimer

This information is based on our present knowledge. Prior to use, please investigate not only the hazards and toxicity information but also the laws and regulations of the organization, area and country where the products are to be used, which shall be given the first priority. The products are supposed to be used promptly after purchase in consideration of safety. Some new information or amendments may be added afterwards. If the products are to be used far behind the

expected time of use or you have any questions, please feel free to contact us. The stated cautions are for normal handling only. In case of special handling, sufficient care should be taken, in addition to the safety measures suitable for the situation. All chemical products should be treated with the recognition of "having unknown hazards and toxicity", which differ greatly depending on the conditions and handling when in use and/or the conditions and duration of storage. The products must be handled only by those who are familiar with specialized knowledge and have experience or under the guidance of those specialists throughout use from opening to storage and disposal. Safe usage conditions shall be set up on each user's own responsibility. Allevi, Inc. and its affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. This document and information shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

End of Safety Data Sheet