

**1. PRODUCT AND COMPANY IDENTIFICATION**

**Company**

Arkema Inc.  
900 First Avenue  
King of Prussia, Pennsylvania 19406

Arkema Coating Resins

**Customer Service Telephone Number:** (877) 331-6696  
(Monday through Friday, 8:00 AM to 5:00 PM EST)

**Emergency Information**

**Transportation:** CHEMTREC: (800) 424-9300  
(24 hrs., 7 days a week)  
**Medical:** Rocky Mountain Poison Center: (866) 767-5089  
(24 hrs., 7 days a week)

**Product Information**

**Product name:** BIOSTRENGTH® 900  
**Synonyms:** Not available  
**Molecular formula:** Complex mixture  
**Chemical family:** acrylic polymer  
**Product use:** process chemical

**2. HAZARDS IDENTIFICATION**

**Emergency Overview**

**Color:** white  
**Physical state:** solid  
**Form:** powder  
**Odor:** none

**\*Classification of the substance or mixture:**  
Inhalation: Acute toxicity, Category 4, H332

\*For the full text of the H-Statements mentioned in this Section, see Section 16.

**GHS-Labeling**

Hazard pictograms:



Signal word: **Warning**

**Hazard statements:**

H332 : Harmful if inhaled.

**Supplemental Hazard Statements:**

May form combustible dust concentrations in air. Processing may release vapors and/or fumes which cause eye, skin and respiratory tract irritation.

**Precautionary statements:**

**Prevention:**

P261 : Avoid breathing gas/mist/vapours/spray.  
P271 : Use only outdoors or in a well-ventilated area.

**Response:**

P304 + P340 : IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P312 : Call a POISON CENTER or doctor/ physician if you feel unwell.

**Supplemental information:**

**Potential Health Effects:**

Contains polymer(s). Effects due to processing releases: Irritating to eyes, respiratory system and skin. Prolonged or repeated exposure may cause: headache, drowsiness, nausea, weakness, (severity of effects depends on extent of exposure).

**Other:**

Mechanical irritation effects from dust exposure are possible at ambient temperature. This product may release fume and/or vapor of variable composition depending on processing time and temperature.

<b>3. COMPOSITION/INFORMATION ON INGREDIENTS</b>
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Chemical Name	CAS-No.	Wt/Wt	GHS Classification**
2-Propenoic acid, 2-methyl-, butyl ester, polymer with butyl 2-propenoate and methyl 2-methyl-2-propenoate	25322-99-0	>= 60 - <= 100 %	Not classified
Glycine, N-methyl-N-(1-oxododecyl)-, sodium salt	137-16-6	>= 1 - < 5 %	H315, H319, H330

Water	7732-18-5	>= 1 - < 5 %	Not classified
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\*\*For the full text of the H-Statements mentioned in this Section, see Section 16.

**4. FIRST AID MEASURES**

**Inhalation:**

If inhaled, remove to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**Skin:**

In case of contact, immediately flush skin with plenty of water. If molten polymer gets on the skin, cool rapidly with cold water. Do not peel solidified product off the skin. Obtain medical treatment for thermal burns. Remove material from clothing. Wash clothing before reuse. Thoroughly clean shoes before reuse.

**Eyes:**

Immediately flush eye(s) with plenty of water. Obtain medical treatment for thermal burns.

**Ingestion:**

If swallowed, DO NOT induce vomiting. Get medical attention. Never give anything by mouth to an unconscious person.

**5. FIREFIGHTING MEASURES**

**Extinguishing media (suitable):**

Water spray, Carbon dioxide (CO2), Foam, Dry chemical

**Extinguishing media (unsuitable):**

High volume water jet

**Protective equipment:**

Fire fighters and others who may be exposed to products of combustion should wear full fire fighting turn out gear (full Bunker Gear) and self-contained breathing apparatus (pressure demand / NIOSH approved or equivalent).

**Further firefighting advice:**

Do not use a solid stream of water.  
 A solid stream of water can cause a dust explosion.  
 Fire fighting equipment should be thoroughly decontaminated after use.

**Fire and explosion hazards:**

When burned, the following hazardous products of combustion can occur:  
 Carbon oxides  
 Sulphur oxides  
 Hazardous organic compounds

Dust clouds generated during handling and/or storage can form explosive mixtures with air. Dust explosion characteristics vary with the particle size, particle shape, moisture content, contaminants, and other variables. Note: Check that all equipment is properly grounded and installed to satisfy electrical classification requirements. As with any dry material, pouring this material or allowing it to free-fall or to be conveyed through chutes or pipes can accumulate and generate electrostatic sparks, potentially causing ignition of the material itself, or of any flammable materials which may come into contact with the material or its container.

## 6. ACCIDENTAL RELEASE MEASURES

### **Personal precautions, Emergency procedures, Methods and materials for containment/clean-up:**

Prevent further leakage or spillage if you can do so without risk. Evacuate area of all unnecessary personnel. Ventilate the area. Eliminate all ignition sources. Avoid dust formation and dispersal of dust in the air. Wet down (dampen) the spilled material with water. Sweep or scoop up using non-sparking tools and place into suitable properly labeled containers for prompt disposal. The sweepings should be wetted down further with water. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Implement workplace practices such that dusts are not allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits.

### **Protective equipment:**

Appropriate personal protective equipment is set forth in Section 8.

## 7. HANDLING AND STORAGE

### **Handling**

#### **General information on handling:**

Avoid breathing dust.  
Avoid breathing processing fumes or vapors.  
Keep away from heat, sparks and flames.  
Keep container closed.  
Use only with adequate ventilation.  
Avoid creating dust in handling, transfer or clean up.  
Prevent dust accumulation.  
Implement routine housekeeping practices to ensure that dusts do not accumulate on surfaces.  
Check that all equipment is properly grounded and installed to satisfy electrical classification requirements.  
Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations.  
Container hazardous when empty.  
Follow label warnings even after container is emptied.  
RESIDUAL DUSTS MAY EXPLODE ON IGNITION.  
DO NOT CUT, DRILL, GRIND, OR WELD ON OR NEAR THIS CONTAINER.  
Improper disposal or reuse of this container may be dangerous and/or illegal.  
Emptied container retains product residue.

### **Storage**

#### **General information on storage conditions:**

Keep in a dry, cool place. Store in closed containers, in a secure area to prevent container damage and subsequent spillage. Store in well ventilated area away from heat and sources of ignition such as flame, sparks and static electricity. Ensure that all storage and handling equipment is properly grounded and installed to satisfy electrical classification requirements. Static electricity may accumulate when transferring material. All metal and groundable storage containers, including but not limited to drums, cylinders, Returnable Intermodal Bulk Containers (RIBCs)

and Class C Flexible Intermodal Bulk Containers (FIBCs) must be bonded and grounded during filling and emptying operations. Observe all federal, state and local regulations and National Fire Protection Association (NFPA) Codes, which pertain to the specific local conditions of storage and use, including NFPA 654.

**Storage stability – Remarks:**

Stable under normal conditions.

**Storage incompatibility – General:**

Store separate from:

Reducing agents

Bases

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Airborne Exposure Guidelines:**

**Particles Not Otherwise Specified / Nuisance Dust (Proprietary)**

US. ACGIH Threshold Limit Values

<b>Form:</b>	Inhalable particles.
Time weighted average	10 mg/m <sup>3</sup>
<b>Form:</b>	Respirable particles.
Time weighted average	3 mg/m <sup>3</sup>

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

<b>Form:</b>	Respirable fraction.
PEL:	5 mg/m <sup>3</sup>

<b>Form:</b>	Total dust
PEL:	15 mg/m <sup>3</sup>

US. OSHA Table Z-3 (29 CFR 1910.1000)

<b>Form:</b>	Respirable fraction.
Time weighted average	15millions of particles per cubic foot of air

<b>Form:</b>	Total dust
Time weighted average	50millions of particles per cubic foot of air

<b>Form:</b>	Respirable fraction.
Time weighted average	5 mg/m <sup>3</sup>

<b>Form:</b>	Total dust
Time weighted average	15 mg/m <sup>3</sup>

Only those components with exposure limits are printed in this section. Limits with skin contact designation above have skin contact effect. Air sampling alone is insufficient to accurately quantitate exposure. Measures to prevent significant cutaneous absorption may be required. Limits with a sensitizer designation above mean that exposure to this material may cause allergic reactions.

**Engineering controls:**

Investigate engineering techniques to reduce exposures below airborne exposure limits or to otherwise reduce exposures. Provide ventilation if necessary to minimize exposures or to control exposure levels to below airborne exposure limits (if applicable see above). If practical, use local mechanical exhaust ventilation at sources of air contamination such as open process equipment.

Check that all dust control equipment such as local exhaust ventilation, material transport systems, and air-material separation devices involved in handling this product contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment. Isolation devices may be appropriate to prevent propagation from one unit to another. Ensure that dust-handling systems are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment). Consult ACGIH ventilation manual, NFPA Standard 91 and NFPA Standard 654 for design of exhaust system and safe handling.

**Respiratory protection:**

Avoid breathing dust. Avoid breathing processing fumes or vapors. Where airborne exposure is likely or airborne exposure limits are exceeded (if applicable, see above), use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. Full facepiece equipment is recommended and, if used, replaces need for face shield and/or chemical goggles. Consult respirator manufacturer to determine appropriate type equipment for a given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where there may be a potential for significant exposure or where exposure limit may be significantly exceeded, use an approved full face positive-pressure, self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply. Respiratory protection programs must comply with 29 CFR § 1910.134.

**Skin protection:**

Processing of this product releases vapors or fumes which may cause skin irritation. Minimize skin contamination by following good industrial hygiene practice. Wearing protective gloves is recommended. Wash hands and contaminated skin thoroughly after contact with processing fumes or vapors. Wash thoroughly after handling.

**Eye protection:**

Use good industrial practice to avoid eye contact. Processing of this product releases vapors or fumes which may cause eye irritation. Where eye contact may be likely, wear chemical goggles and have eye flushing equipment available.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Color:</b>	white
<b>Physical state:</b>	solid
<b>Form:</b>	powder

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<b>Odor:</b>	none
<b>Odor threshold:</b>	No data available
<b>Flash point</b>	Not applicable
<b>Auto-ignition temperature:</b>	878 °F (470 °C)
<b>Lower flammable limit (LFL):</b>	Not applicable
<b>Upper flammable limit (UFL):</b>	Not applicable
<b>pH:</b>	Not applicable
<b>Density:</b>	Not applicable
<b>Specific Gravity (Relative density):</b>	Not applicable
<b>Vapor pressure:</b>	Not applicable
<b>Vapor density:</b>	Not applicable
<b>Boiling point/boiling range:</b>	Not applicable
<b>Melting point/range:</b>	No data available
<b>Freezing point:</b>	No data available.
<b>Evaporation rate:</b>	No data available
<b>Solubility in water:</b>	insoluble
<b>Viscosity, dynamic:</b>	No data available.
<b>Oil/water partition coefficient:</b>	No data available
<b>Thermal decomposition</b>	No data available
<b>Flammability:</b>	See GHS Classification in Section 2

**10. STABILITY AND REACTIVITY****Stability:**

The product is stable at normal handling and storage temperatures.

**Hazardous reactions:**

Hazardous polymerization does not occur.

**Materials to avoid:**

Bases  
Reducing agents

**Conditions / hazards to avoid:**

See HANDLING AND STORAGE section of this SDS for specified conditions. See Hazardous Decomposition Products below.

**Hazardous decomposition products:**

Thermal decomposition giving flammable and toxic products :  
Carbon oxides  
Acrylates  
Methacrylates  
Sulphur oxides  
Hazardous organic compounds

**11. TOXICOLOGICAL INFORMATION**

Data on this material and/or its components are summarized below.

**Inhalation:**

4 h Acute toxicity estimate 2.94 mg/l. (dust/mist)

**Data for 2-Propenoic acid, 2-methyl-, butyl ester, polymer with butyl 2-propenoate and methyl 2-methyl-2-propenoate (25322-99-0)****Other information**

The information presented is from representative materials in this chemical class. The results may vary depending on the test substance.

Effects due to processing releases or residual monomer:

Possible cross sensitization with other acrylates and methacrylates

**Data for Glycine, N-methyl-N-(1-oxododecyl)-, sodium salt (137-16-6)****Acute toxicity****Oral:**

Practically nontoxic. (rat) LD50 > 5,000 mg/kg.

**Skin Irritation:**

Causes mild skin irritation. (rabbit) Irritation Index: 2 / 8. (4 h) (30 %)



Causes skin irritation. (rabbit) (100 %) (estimate based on composition)

**Eye Irritation:**

Causes eye irritation. (rabbit) (30 %)

Causes serious eye irritation. (rabbit) (100 %) (estimate based on composition)

**Skin Sensitization:**

Not a sensitizer. Guinea pig maximization test. (guinea pig) No skin allergy was observed

**Repeated dose toxicity**

Subchronic oral administration to rat / affected organ(s): Gastro-intestinal tract / signs: Local irritation / No adverse systemic effects reported.

**Genotoxicity****Assessment in Vitro:**

No genetic changes were observed in laboratory tests using: human cells, animal cells, bacteria

**12. ECOLOGICAL INFORMATION****Chemical Fate and Pathway**

Data on this material and/or its components are summarized below.

**Data for Glycine, N-methyl-N-(1-oxododecyl)-, sodium salt (137-16-6)****Biodegradation:**

Readily biodegradable. (28 d) Water 82 %

**Ecotoxicology**

Data on this material and/or its components are summarized below.

**Data for Glycine, N-methyl-N-(1-oxododecyl)-, sodium salt (137-16-6)****Aquatic toxicity data:**

Practically nontoxic. Danio rerio (zebra fish) 96 h LC50 = 107 mg/l

**Aquatic invertebrates:**

Harmful. Daphnia magna (Water flea) 48 h = 29.7 mg/l

**Algae:**

Harmful. Desmodesmus subspicatus (green algae) 72 h EC50 (growth rate) = 86 mg/l

**Microorganisms:**

Respiration inhibition / Activated sludge 3 h EC50 = 1,000 mg/l

**Chronic toxicity to aquatic plants:**

Desmodesmus subspicatus (green algae) 72 h NOEC (growth rate inhibition) = 9.2 mg/l

**13. DISPOSAL CONSIDERATIONS**

**Waste disposal:**

Disposal via incineration is recommended. Dispose of in accordance with federal, state and local regulations. Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits. Note: Chemical additions to, processing of, or otherwise altering this material may make this waste management information incomplete, inaccurate, or otherwise inappropriate. Furthermore, state and local waste disposal requirements may be more restrictive or otherwise different from federal laws and regulations.

**14. TRANSPORT INFORMATION**

**US Department of Transportation (DOT):** not regulated

**International Maritime Dangerous Goods Code (IMDG):** not regulated

**15. REGULATORY INFORMATION**

**Chemical Inventory Status**

EU. EINECS	EINECS	Conforms to
United States TSCA Inventory	TSCA	The components of this product are all on the TSCA Inventory.
Canadian Domestic Substances List (DSL)	DSL	All components of this product are on the Canadian DSL
China. Inventory of Existing Chemical Substances in China (IECSC)	IECSC (CN)	Conforms to
Japan. ENCS - Existing and New Chemical Substances Inventory	ENCS (JP)	Conforms to
Japan. ISHL - Inventory of Chemical Substances	ISHL (JP)	Conforms to
Korea. Korean Existing Chemicals Inventory (KECI)	KECI (KR)	Conforms to
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	PICCS (PH)	Conforms to
Australia Inventory of Chemical Substances (AICS)	AICS	Conforms to

**United States – Federal Regulations**

**SARA Title III – Section 302 Extremely Hazardous Chemicals:**

The components in this product are either not SARA Section 302 regulated or regulated but present in negligible concentrations.

**SARA Title III - Section 311/312 Hazard Categories:**

Fire Hazard, Acute Health Hazard

**SARA Title III – Section 313 Toxic Chemicals:**

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) - Reportable Quantity (RQ):**

The components in this product are either not CERCLA regulated, regulated but present in negligible concentrations, or regulated with no assigned reportable quantity.

**United States – State Regulations****New Jersey Right to Know**

No components are subject to the New Jersey Right to Know Act.

**Pennsylvania Right to Know**

<u>Chemical Name</u>	<u>CAS-No.</u>
2-Propenoic acid, 2-methyl-, butyl ester, polymer with butyl 2-propenoate and methyl 2-methyl-2-propenoate	25322-99-0

**California Prop. 65**

WARNING! This product contains a chemical known to the State of California to cause cancer.

<u>Chemical Name</u>	<u>CAS-No.</u>
Formaldehyde	50-00-0

**16. OTHER INFORMATION****Full text of H-Statements referred to under sections 2 and 3.**

H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H330 Fatal if inhaled.  
H332 Harmful if inhaled.

**Miscellaneous:**

Other information: Refer to National Fire Protection Association (NFPA) Code 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for safe handling.

**Latest Revision(s):**

Reference number: 000000059804

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Date of Revision: 02/26/2016  
Date Printed: 02/26/2016

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*Arkema has implemented a Medical Policy regarding the use of Arkema products in Medical Devices applications that are in contact with the body or circulating bodily fluids (<http://www.arkema.com/en/social-responsibility/responsible-product-management/medical-device-policy/index.html>) Arkema has designated Medical grades to be used for such Medical Device applications. Products that have not been designated as Medical grades are not authorized by Arkema for use in Medical Device applications that are in contact with the body or circulating bodily fluids. In addition, Arkema strictly prohibits the use of any Arkema products in Medical Device applications that are implanted in the body or in contact with bodily fluids or tissues for greater than 30 days. The Arkema trademarks and the Arkema name shall not be used in conjunction with customers' medical devices, including without limitation, permanent or temporary implantable devices, and customers shall not represent to anyone else, that Arkema allows, endorses or permits the use of Arkema products in such medical devices.*

*It is the sole responsibility of the manufacturer of the medical device to determine the suitability (including biocompatibility) of all raw materials, products and components, including any medical grade Arkema products, in order to ensure that the final end-use product is safe for its end use; performs or functions as intended; and complies with all applicable legal and regulatory requirements (FDA or other national drug agencies) It is the sole responsibility of the manufacturer of the medical device to conduct all necessary tests and inspections and to evaluate the medical device under actual end-use requirements and to adequately advise and warn purchasers, users, and/or learned intermediaries (such as physicians) of pertinent risks and fulfill any postmarket surveillance obligations. Any decision regarding the appropriateness of a particular Arkema material in a particular medical device should be based on the judgment of the manufacturer, seller, the competent authority, and the treating physician.*