

**MATERIAL SAFETY DATA SHEET**

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**1 PRODUCT IDENTIFICATION**

PRODUCT NAME                                   AQUALON® CELLULOSE GUM (CMC PURIFIED)  
CHEMICAL/Common Name                       sodium carboxymethylcellulose; cellulose, carboxymethyl ether, sodium salt  
CAS NUMBER                                     9004-32-4

**2 COMPOSITION / INFORMATION ON INGREDIENTS**

This product is considered hazardous according to the OSHA Hazard Communication Standard 29CFR1910.1200 due to flammable dust potential.

Hercules Incorporated has not determined the safety of this product for parenteral or medical implant uses.

**3 HAZARDS IDENTIFICATION****EMERGENCY OVERVIEW**  
**WARNING!**

Static charges generated by emptying package in or near flammable vapors may cause flash fire.  
May form flammable dust-air mixtures.  
May cause mild eye irritation.  
May cause skin irritation by mechanical abrasion.  
Inhalation of dust may cause respiratory tract irritation.  
Surfaces subject to spills may become slippery.

**POTENTIAL HEALTH EFFECTS**

Repeated ingestion may cause an allergic reaction in susceptible individuals.  
Repeated or prolonged skin contact may cause allergic dermatitis in susceptible individuals.

Refer to Section 5 for Hazardous Combustion Products, and Section 10 for Hazardous Decomposition/Hazardous Polymerization Products.

**4 FIRST AID MEASURES****SKIN**

Wash thoroughly with soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persists. Thoroughly wash clothing before reuse.

**EYE**

Remove contact lenses. Hold eyelids apart. Immediately flush eyes with plenty of low-pressure water for at least 15 minutes. Get medical attention if irritation persists.

**INHALATION**

Remove to fresh air. Get medical attention if nasal, throat or lung irritation develops.

**INGESTION**

Do NOT induce vomiting. Get immediate medical attention.

## 5 FIRE FIGHTING MEASURES

### EXTINGUISHING MEDIA

Water spray, dry chemical, foam, carbon dioxide or clean extinguishing agents may be used on fires involving this product.

### FIRE FIGHTING PROCEDURES

Wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH approved (or equivalent) and full protective gear when fighting fires involving this product.

### CONDITIONS TO AVOID

None known.

### HAZARDOUS COMBUSTION PRODUCTS

Combustion products include: carbon monoxide , carbon dioxide and smoke

**AUTOIGNITION TEMPERATURE** > 698 ° F (dust)

## 6 ACCIDENTAL RELEASE MEASURES

Ventilate area. Avoid dust formation. Clean up spills immediately. If product is contaminated, scoop into containers, and dispose appropriately. If product is not contaminated, scoop into clean containers for use. In case of accidental spill or release, refer to Section 8, Personal Protective Equipment and General Hygiene Practices.

## 7 HANDLING & STORAGE

### GENERAL MEASURES

Ground all equipment.

Blanket vessel with inert gas when emptying bags where flammable vapors may be present.

Ground operator and pour material slowly into conductive, grounded chute.

Store in a cool, dry, well ventilated area.

Keep container closed when not in use.

### MATERIALS OR CONDITIONS TO AVOID

Avoid conditions that generate dust; product may form flammable dust-air mixtures.

Avoid emptying package in or near flammable vapors; static charges may cause flash fire.

Keep away from heat, flame, sparks and other ignition sources.

Do not store in direct sunlight or expose to UV radiation.

## 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

### WORK PRACTICES & ENGINEERING CONTROLS

Eyewash fountains and safety showers should be easily accessible.

Provide adequate ventilation.

If upper respiratory tract irritation occurs, use an approved dust/mist respirator to minimize exposure.

Keep floors clean and dry. Clean up spills immediately.

### GENERAL HYGIENIC PRACTICES

Avoid contact with eyes, skin, and clothing.

Avoid breathing dust.

Handle in areas with adequate ventilation.

Do not swallow.

Avoid contamination of food, beverages, or smoking materials.

Wash thoroughly after handling, and before eating, drinking or smoking.

Remove contaminated clothing promptly and clean thoroughly before reuse.

### RECOMMENDED EXPOSURE LIMITS

No exposure limit has been established. This product may irritate the upper respiratory tract if used under conditions that create dust or mist particulates.

### PERSONAL PROTECTIVE EQUIPMENT

Safety glasses

Impervious gloves

Appropriate protective clothing

Wear approved dust/mist respirator if user operations create dust/mist that causes irritation.

## PROTECTIVE MEASURES DURING REPAIR AND MAINTENANCE

Eliminate ignition sources and prevent build-up of static electrical charges.

Completely isolate and thoroughly clean all equipment, piping, or vessels before beginning maintenance or repairs.

Keep area clean.

## 9 PHYSICAL & CHEMICAL PROPERTIES

PHYSICAL STATE:	granular powder
COLOR:	white to off-white
ODOR:	odorless
Specific Gravity	1.59
Percent Volatile	negligible at 68° F
Solubility In Water	limited by viscosity
Browning Temperature	440 ° F
Moisture Content,(Wt.)%	8.0 max. (as packed)

## 10 STABILITY & REACTIVITY

### HAZARDOUS DECOMPOSITION PRODUCTS

None known.

### HAZARDOUS POLYMERIZATION

Not anticipated under normal or recommended handling and storage conditions.

### GENERAL STABILITY CONSIDERATIONS

Stable under recommended handling and storage conditions.

### INCOMPATIBLE MATERIALS

None known

## 11 TOXICOLOGICAL INFORMATION

### CARCINOGENICITY INFORMATION

Not listed as a carcinogen by NTP. Not regulated as a carcinogen by OSHA. Not evaluated by IARC.

### REPORTED HUMAN EFFECTS

PRODUCT/SIMILAR PRODUCT - A single case of allergic dermatitis has been reported after repeated long-term skin contact. A single case of anaphylaxis after ingestion has been reported in medical literature. Due to the physical nature of this material, may cause eye, skin and respiratory irritation.

### REPORTED ANIMAL EFFECTS

PRODUCT/SIMILAR PRODUCT - Reported to cause rabbit eye irritation after exposure to dust. Low order of oral toxicity based on acute and chronic studies in several species.

### MUTAGENICITY/GENOTOXICITY INFORMATION

PRODUCT/SIMILAR PRODUCT - Not mutagenic in Ames assay or chromosome aberration test.

## 12 ECOLOGICAL INFORMATION

### ECOTOXICOLOGICAL INFORMATION

PRODUCT/SIMILAR PRODUCT - Acute aquatic 96-hour static LC50 value falls within the practically nontoxic range of 100-1000 mg/L, according to the U. S. Fish and Wildlife criteria. Rainbow trout and Bluegill sunfish were the species tested.

### BIODEGRADABILITY

This product is biodegradable.

## 13 DISPOSAL CONSIDERATIONS

### WASTE DISPOSAL

Landfilling in a permitted solid or hazardous waste facility is recommended. Handling, transportation, and disposal of material should be conducted in a manner to prevent a nuisance dust hazard. Fully containerize the material before handling, and protect from exposure to the outdoors. Ensure there are no restrictions on disposing of bulk or semi-bulk quantities of waste material. Disposal should be in accordance with all Federal, State and local regulations.

## 14 TRANSPORT INFORMATION

### GENERAL

This product is not subject to DOT regulations. For specific information regarding transportation of this product, please call the Hercules representative at (905) 279-3338.

## 15 REGULATORY INFORMATION

### CHEMICAL INVENTORIES

U.S. TSCA: The components of this product are included on the TSCA Inventory.

Canadian CEPA : Included on DSL Inventory.

### SARA TITLE III - SECTIONS 302/304

This product is not an Extremely Hazardous Substance subject to reporting under 40CFR355.

### SARA TITLE III - SECTIONS 311 AND 312

NHH: Not a health hazard

HC-3: Fire hazard

### SARA TITLE III - SECTION 313

This product does not contain any chemicals subject to reporting under Section 313 of Title III of the Superfund Amendments and Reauthorization Act and 40CFR372.

### CERCLA

This product does not contain any chemicals subject to reporting as a CERCLA Hazardous Substance under 40CFR302.4.

### RCRA

This product is not a hazardous waste as listed in 40CFR261.33. It does not exhibit any of the hazardous characteristics listed in 40CFR261, Subpart C.

## 16 OTHER INFORMATION

### HMIS RATINGS:

Health	1	Slight Hazard
Flammability	1	Slight Hazard
Reactivity	0	Minimal Hazard

## LIST OF ACRONYMS

ACGIH: American Conferences of Governmental Industrial Hygienists  
AIHA WEEL: American Industrial Hygienists Association-Workplace Environmental Exposure Level  
ANSI: American National Standards Institute  
CASRN: Chemical Abstracts Service Registry Number  
CEPA: Canadian Environmental Protection Act  
CERCLA: Comprehensive Emergency Response, Compensation and Liability Act  
DSL: Domestic Substances List (Canadian)  
HMIS: Hazardous Materials Identification System  
IARC: International Agency for Research on Cancer  
NDSL: Non-Domestic Substances List (Canadian)  
NTP: National Toxicology Program  
OSHA: Occupational Safety and Health Administration  
PEL: Permissible Exposure Limit (OSHA)  
RCRA: Resource Conservation and Recovery Act  
RQ: Reportable Quantity  
SARA: Superfund Amendment Reauthorization Act  
STEL: Short-Term Exposure Limit  
TLV: Threshold Limit Values (registered trademark of ACGIH)  
TPQ: Threshold Planning Quantity  
TSCA: Toxic Substance Control Act  
TWA: Time Weighted Average

## DISCLAIMER

The information and recommendations contained in this Material Safety Data Sheet have been compiled from sources believed to be reliable and to represent the most reasonable current opinion on the subject when the MSDS was prepared. No warranty, guaranty or representation is made as to the correctness or sufficiency of the information. The user of this product must decide what safety measures are necessary to safely use this product, either alone or in combination with other products, and determine its environmental regulatory compliance obligations under any applicable federal or state laws.

## MSDS STATUS

Supersedes Date	MSDS Revision(s)
10/01/2003	Section 4