### SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

<table>
<thead>
<tr>
<th>Product identifier</th>
<th>Substance name</th>
<th>Substance No.</th>
<th>EC-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Trade name</strong></td>
<td><strong>Aqualon™ CMC 7L Sodium Carboxymethylcellulose</strong></td>
<td><strong>HIGH PURITY SODIUM CARBOXYMETHYLCELLULOSE, SODIUM CMC, 98%</strong></td>
<td><strong>618-378-6</strong></td>
</tr>
</tbody>
</table>

**Recommended use of the chemical and restrictions on use**

- Details of the supplier of the safety data sheet:
  - Ashland
  - P.O. Box 2219
  - Columbus, OH 43216
  - United States of America
  - EHS Customer Requests@ashland.com

- Emergency telephone number: 1-800-ASHLAND (1-800-274-5263)
- Regulatory Information Number: 1-800-325-3751
- Product Information: 614-790-3333

### SECTION 2. HAZARDS IDENTIFICATION

**GHS Classification**
- Combustible Dust

**GHS Label element**
- **Signal Word**: Warning
- **Hazard Statements**: May form combustible dust concentrations in air.

**Other hazards**
- None known.

### SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

- **Substance / Mixture**: Substance
- **Chemical nature**: organic
Hazardous components
No hazardous ingredients

SECTION 4. FIRST AID MEASURES

General advice : No hazards which require special first aid measures.

If inhaled : If breathed in, move person into fresh air.
If unconscious place in recovery position and seek medical advice.
If symptoms persist, call a physician.

In case of skin contact : First aid is not normally required. However, it is recommended that exposed areas be cleaned by washing with soap and water.

In case of eye contact : Remove contact lenses.
Protect unharmed eye.

If swallowed : Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.

Most important symptoms and effects, both acute and delayed : No symptoms known or expected.

Notes to physician : No hazards which require special first aid measures.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Water spray
Foam

Specific hazards during firefighting : Organic dusts at sufficient concentration can form explosive mixtures in air.
Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products : carbon dioxide and carbon monoxide

Specific extinguishing methods : Product is compatible with standard fire-fighting agents.
SECTION 6. ACCIDENTAL RELEASE MEASURES

- **Personal precautions, protective equipment and emergency procedures**
  - Avoid dust formation.
  - Avoid breathing dust.
  - Material can create slippery conditions.
  - Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.

- **Environmental precautions**
  - Prevent further leakage or spillage if safe to do so.

- **Methods and materials for containment and cleaning up**
  - Pick up and arrange disposal without creating dust.
  - Keep in suitable, closed containers for disposal.

- **Other information**
  - Comply with all applicable federal, state, and local regulations.

SECTION 7. HANDLING AND STORAGE

- **Advice on safe handling**
  - Avoid dust formation.
  - Ensure all equipment is electrically grounded and bonded before beginning transfer operations.
  - The material can accumulate static charge and can therefore cause electrical ignition of flammable atmospheres.
  - Smoking, eating and drinking should be prohibited in the application area.
  - For personal protection see section 8.
  - Maintain good housekeeping. Do not permit dust layers to accumulate, for example, on floors, ledges, and equipment, in order to avoid any potential for dust explosion hazards.

  For further guidance on prevention of dust explosions, refer to National Fire Protection Association (NFPA) 654: “Standard for the Prevention of Fire and Dust Explosions, from the Manufacturing, Processing and Handling of Combustible Particulate Solids”.

- **Conditions for safe storage**
  - No smoking.
  - Electrical installations / working materials must comply with the technological safety standards.

- **Materials to avoid**
  - No materials to be especially mentioned.
SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Engineering measures: Provide appropriate exhaust ventilation at places where dust is formed.
General room ventilation should be adequate for normal conditions of use. However, if unusual operating conditions exist, provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

Provide appropriate exhaust ventilation at places where dust is formed.
General room ventilation should be adequate for normal conditions of use. However, if unusual operating conditions exist, provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

Personal protective equipment
Respiratory protection: No personal respiratory protective equipment normally required.

Eye protection: Safety glasses

Skin and body protection: Wear as appropriate:
Safety shoes
Wear resistant gloves (consult your safety equipment supplier).

Hygiene measures: Avoid breathing dust.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: powder
Physical state: solid
Colour: off-white
Odour: odourless
Odour Threshold: No data available
pH: 6.5 - 8.5, (as aqueous solution)
Melting point/freezing point : No data available
Boiling point/boiling range : No data available
Flash point : Not applicable
Evaporation rate : No data available
Flammability (solid, gas) : Combustible Dust
Upper explosion limit : No data available
Lower explosion limit : No data available
Vapour pressure : No data available
Relative vapour density : No data available
Relative density : No data available
Density : 1.59 g/cm³
Bulk density : 500 - 1,000 kg/m³
Solubility(ies)
Water solubility : soluble, Limited by viscosity
Solubility in other solvents : No data available
Partition coefficient: n-octanol/water : No data available
Auto-ignition temperature : 360 °C
Thermal decomposition : No data available
Viscosity
Viscosity, dynamic : No data available
Viscosity, kinematic : No data available
Oxidizing properties : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No decomposition if stored and applied as directed.
Chemical stability : Stable under recommended storage conditions.
Possibility of hazardous : Dust may form explosive mixture in air.
Conditions to avoid

- UV light.
- Exposure to sunlight.
- Keep away from heat, flame, sparks and other ignition sources.

Incompatible materials

- Acids
- Bases
- Oxidizing agents

Hazardous decomposition products

No hazardous decomposition products are known.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

- Inhalation
- Skin contact
- Eye Contact
- Ingestion/inhalation
- Skin contact
- Eye Contact
- Ingestion

Acute toxicity

Not classified based on available information.

Product:

Acute inhalation toxicity: LC₅₀ (Rat): > 5,800 mg/l

Acute dermal toxicity: LD₅₀ (Rabbit): > 2,000 mg/kg

Skin corrosion/irritation

Not classified based on available information.

Serious eye damage/eye irritation

Not classified based on available information.

Product:

Remarks: Unlikely to cause eye irritation or injury. Product dust may be irritating to eyes, skin and respiratory system.

Remarks: Unlikely to cause eye irritation or injury. Product dust may be irritating to eyes, skin and respiratory system.

Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information.

Respiratory sensitisation: Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.
Reproductive toxicity
Not classified based on available information.

STOT - single exposure
Not classified based on available information.

STOT - repeated exposure
Not classified based on available information.

Aspiration toxicity
Not classified based on available information.

Product:
No aspiration toxicity classification

Further information

Product:
Remarks: No data available

Carcinogenicity:

IARC
No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA
No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP
No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:
Toxicity to fish: LC 50 (Onchorhynchus mykiss (rainbow trout)): > 100 mg/l
Exposure time: 96 h
Test Type: static test

LC 50 (Lepomis macrochirus (Bluegill sunfish)): > 100 mg/l
Exposure time: 96 h
Test Type: static test

Persistence and degradability

Product:
Biodegradability: Remarks: Slowly biodegradable.

No data available

Bioaccumulative potential
No data available
Mobility in soil
No data available

Other adverse effects
No data available

Product:
Additional ecological information: No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods
General advice: Dispose of in accordance with all applicable local, state and federal regulations.

Contaminated packaging: Empty remaining contents.

SECTION 14. TRANSPORT INFORMATION

International transport regulations

<table>
<thead>
<tr>
<th>REGULATION</th>
<th>ID NUMBER</th>
<th>PROPER SHIPPING NAME</th>
<th>*HAZARD CLASS</th>
<th>SUBSIDIARY HAZARDS</th>
<th>PACKING GROUP</th>
<th>MARINE POLLUTANT / LTD. QTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. DOT - ROAD</td>
<td>Not dangerous goods</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.S. DOT - RAIL</td>
<td>Not dangerous goods</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>U.S. DOT - INLAND WATERWAYS</td>
<td>Not dangerous goods</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TRANSPORT CANADA - ROAD</td>
<td>Not dangerous goods</td>
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<td>TRANSPORT CANADA - INLAND WATERWAYS</td>
<td>Not dangerous goods</td>
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SAFETY DATA SHEET

Revision Date: 05/21/2015
Print Date: 8/13/2015
SDS Number: R0392869
Version: 1.0

Aqualon™ CMC 7L Sodium Carboxymethylcellulose
Trademark, Ashland or its subsidiaries, registered in various countries
431161

INTERNATIONAL MARITIME DANGEROUS GOODS
Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO
Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER
Not dangerous goods

MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND WASTES
Not dangerous goods

*ORM = ORM-D, CBL = COMBUSTIBLE LIQUID

| Marine pollutant | no |

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

SECTION 15. REGULATORY INFORMATION

SARA 311/312 Hazards: Fire Hazard

SARA 313 Component(s)
SARA 313
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.

Pennsylvania Right To Know

| CELLULOSE | 254504001- | 90.00 - |
| 5918 | 100.00 % |

New Jersey Right To Know

| CELLULOSE | 254504001- | 90.00 - |
| 5918 | 100.00 % |

California Prop 65
Proposition 65 warnings are not required for this product based on the results of a risk assessment.

The components of this product are reported in the following inventories:

TSCA: On TSCA Inventory

DSL: All components of this product are on the Canadian DSL.
AQUALON™ CMC 7L Sodium Carboxymethylcellulose
Trademark, Ashland or its subsidiaries, registered in various countries
431161

AUSTRI : On the inventory, or in compliance with the inventory
ENCS : On the inventory, or in compliance with the inventory
KECL : On the inventory, or in compliance with the inventory
PICCS : On the inventory, or in compliance with the inventory
IECSC : On the inventory, or in compliance with the inventory

Inventories
AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECL (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

SECTION 16. OTHER INFORMATION

Further information
Revision Date: 05/21/2015

<table>
<thead>
<tr>
<th>NFPA:</th>
<th>HMIS III:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>FLAMMABILITY</td>
</tr>
<tr>
<td>0</td>
<td>HEALTH</td>
</tr>
<tr>
<td>1</td>
<td>FLAMMABILITY</td>
</tr>
<tr>
<td>Special hazard</td>
<td>PHYSICAL HAZARD</td>
</tr>
</tbody>
</table>

0 = not significant, 1 = Slight, 2 = Moderate, 3 = High, 4 = Extreme, * = Chronic

Full text of H-Statements referred to under sections 2 and 3.

Sources of key data used to compile the Safety Data Sheet
Ashland internal data including own and sponsored test reports
The UNECE administers regional agreements implementing harmonised classification for labelling (GHS) and transport.

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the
information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Ashland’s Environmental Health and Safety Department (1-800-325-3751).

List of abbreviations and acronyms that could be, but not necessarily are, used in this safety data sheet:
ACGIH : American Conference of Industrial Hygienists
BEI : Biological Exposure Index
CAS : Chemical Abstracts Service (Division of the American Chemical Society)
CMR : Carcinogenic, Mutagenic or Toxic for Reproduction
FG : Food grade
GHS : Globally Harmonized System of Classification and Labeling of Chemicals.
H-statement : Hazard Statement
IATA : International Air Transport Association.
IATA-DGR : Dangerous Goods Regulation by the “International Air Transport Association” (IATA).

ICAO : International Civil Aviation Organization
ICAO-TI (ICAO) : Technical Instructions by the “International Civil Aviation Organization”
IMDG : International Maritime Code for Dangerous Goods
ISO : International Organization for Standardization
logPow : octanol-water partition coefficient
LCxx : Lethal Concentration, for xx percent of test population
LDxx : Lethal Dose, for xx percent of test population
ICxx : Inhibitory Concentration for xx of a substance
ECxx : Effective Concentration of xx
N.O.S. : Not Otherwise Specified
OECD : Organization for Economic Co-operation and Development
OEL : Occupational Exposure Limit
P-Statement : Precautionary Statement
PBT : Persistent, Bioaccumulative and Toxic
PPE : Personal Protective Equipment
STEL : Short-term exposure limit
STOT : Specific Target Organ Toxicity
TLV : Threshold Limit Value
TWA : Time-weighted average
vPvB : Very Persistent and Very Bioaccumulative
WEL : Workplace Exposure Level

CERCLA : Comprehensive Environmental Response, Compensation, and Liability Act
DOT : Department of Transportation
FIFRA : Federal Insecticide, Fungicide, and Rodenticide Act
HMIRC : Hazardous Materials Information Review Commission
HMIS : Hazardous Materials Identification System
NFPA : National Fire Protection Association
NIOSH : National Institute for Occupational Safety and Health
OSHA : Occupational Safety and Health Administration
PMRA : Health Canada Pest Management Regulatory Agency
RTK : Right to Know
WHMIS : Workplace Hazardous Materials Information System