1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Ashland Canada Corp. Regulatory Information Number 1-800-325-3751
2620 Royal Windsor Dr Telephone 614-790-3333
Mississauga, ON L5J 4E7 Emergency telephone number 1-800-ASHLAND (1-800-274-5263)

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

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance: solid, powder, off-white

MAY FORM COMBUSTIBLE DUST-AIR MIXTURES.

Potential Health Effects

Exposure routes
Inhalation, Skin contact, Eye Contact, Ingestion

Eye contact
Unlikely to cause eye irritation or injury.

Skin contact
Unlikely to cause skin irritation or injury.

Ingestion
Swallowing this material is not likely to be harmful.

Inhalation
It is possible to breathe this material under certain conditions of handling and use (for example, during heating, spraying, or stirring). Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms are not expected at air concentrations below the recommended exposure limits, if applicable (see Section 8.).

Aggravated Medical Condition
No data.
Symptoms
Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include; irritation (nose, throat, airways) No symptoms known or expected.

Target Organs
No data.

Carcinogenicity
This material is not listed as a carcinogen by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), or the Occupational Safety and Health Administration (OSHA). This material is not listed as a carcinogen by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), or the Occupational Safety and Health Administration (OSHA).

Reproductive hazard
Based on the available information, risk to the fetus from maternal exposure to this material cannot be assessed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

WHMIS hazardous composition: No ingredients are hazardous according to the CPR criteria.

4. FIRST AID MEASURES

General Information
No hazards which require special first aid measures.

Eyes
Remove contact lenses. Protect unharmed eye.

Skin
First aid is not normally required. However, it is recommended that exposed areas be cleaned by washing with soap and water.

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

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

Notes to physician
Hazards: No information available.
Treatment: No hazards which require special first aid measures.

5. FIREFIGHTING MEASURES

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

Hazardous combustion products
- carbon dioxide and carbon monoxide

Precautions for fire-fighting
- 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. In the event of fire, wear self-contained breathing apparatus. Standard procedure for chemical fires.

NFPA Flammable and Combustible Liquids Classification
- Not applicable

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
- For personal protection see section 8. 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 for 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.
7. HANDLING AND STORAGE

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”. Take measures to prevent the build up of electrostatic charge. Provide appropriate exhaust ventilation at places where dust is formed.

Storage
No smoking. Keep in a dry place. No decomposition if stored and applied as directed.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines
Contains no substances with occupational exposure limit values.

General advice
These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should consider factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities.

Avoid breathing dust.

Exposure controls
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.

Eye protection
Safety glasses

Skin and body protection
Wear as appropriate:
Safety shoes
Wear resistant gloves (consult your safety equipment supplier).
Respiratory protection  
No personal respiratory protective equipment normally required.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Physical state</th>
<th>solid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>powder</td>
</tr>
<tr>
<td>Colour</td>
<td>off-white</td>
</tr>
<tr>
<td>Odour</td>
<td>odourless</td>
</tr>
<tr>
<td>Boiling point/bubbling range</td>
<td>/ No data available</td>
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<tr>
<td>pH</td>
<td>6.5 - 8.5 (as aqueous solution)</td>
</tr>
<tr>
<td>flash point</td>
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</tr>
<tr>
<td>Ignition temperature</td>
<td>360.00 °C</td>
</tr>
<tr>
<td>Evaporation rate</td>
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<tr>
<td>Vapour pressure</td>
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</tr>
<tr>
<td>Density</td>
<td>1.59 g/cm³</td>
</tr>
<tr>
<td>Bulk density</td>
<td>500 - 1,000 kg/m³</td>
</tr>
<tr>
<td>Water solubility</td>
<td>soluble, Limited by viscosity</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available No data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

Stability  
Stable under recommended storage conditions.

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

Incompatible products
Acids, Bases, Oxidizing agents

**Hazardous decomposition products**
No hazardous decomposition products are known.

**Hazardous reactions**
Dust may form explosive mixture in air.

**Thermal decomposition**
No data available

### 11. TOXICOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Information on likely routes of exposure</th>
<th>Inhalation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Skin contact</td>
</tr>
<tr>
<td></td>
<td>Eye Contact</td>
</tr>
<tr>
<td></td>
<td>Ingestion</td>
</tr>
</tbody>
</table>

**Product**

- **Acute oral toxicity**: No data available
- **Acute inhalation toxicity**: LC50 Rat: > 5,800 mg/l
  Test atmosphere: dust/mist
- **Acute dermal toxicity**: LD50 Rabbit: > 2,000 mg/kg
- **Skin corrosion/irritation**: No data available
- **Serious eye damage/eye irritation**: Unlikely to cause eye irritation or injury.
  Product dust may be irritating to eyes, skin and respiratory system.
  Unlikely to cause eye irritation or injury.
  Product dust may be irritating to eyes, skin and respiratory system.
- **Respiratory or skin sensitisation**: No data available
Aspiration toxicity : No aspiration toxicity classification

Further information : No data available

Components:
No data available

12. ECOLOGICAL INFORMATION

Ecotoxicity
Product:
Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)) : > 100 mg/l
Exposure time: 96 h
Test Method: static test

LC50 (Lepomis macrochirus (Bluegill sunfish)) : > 100 mg/l
Exposure time: 96 h
Test Method: static test

Components:
No data available

Persistence and degradability
Product:
Biodegradability : Inherently biodegradable.

Components:
No data available

Bioaccumulative potential
Product:
Partition coefficient: n-octanol/water : No data available
Components:
No data available

Mobility in soil

Product:
No data available

Components:
No data available

Other adverse effects

Product:
Additional ecological information : No data available

13. DISPOSAL CONSIDERATIONS

Waste disposal methods
Dispose of in accordance with all applicable local, state and federal regulations.
Empty remaining contents.

14. TRANSPORT INFORMATION

REGULATION

<table>
<thead>
<tr>
<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>
</table>

U.S. DOT - ROAD
Not dangerous goods

CFR_RAIL_C
Not dangerous goods

U.S. DOT - INLAND WATERWAYS
Not dangerous goods
### 15. REGULATORY INFORMATION

**WHMIS Classification**  
Not Rated

WHMIS Ingredient Disclosure List IDL: No component is listed on the WHMIS ingredients disclosure list.
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

**Canadian National Pollutant Release Inventory (NPRI)**

No component is listed on NPRI.

**Notification status**

<table>
<thead>
<tr>
<th>Notification status</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canadian Domestic Substances List (DSL)</td>
<td>y (positive listing)</td>
</tr>
<tr>
<td>Australia Inventory of Chemical Substances (AICS)</td>
<td>y (positive listing)</td>
</tr>
<tr>
<td>Japan. ENCS - Existing and New Chemical Substances Inventory</td>
<td>y (positive listing)</td>
</tr>
<tr>
<td>Korea. Korean Existing Chemicals Inventory (KECI)</td>
<td>y (positive listing)</td>
</tr>
<tr>
<td>Philippines Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>y (positive listing)</td>
</tr>
<tr>
<td>China. Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>y (positive listing)</td>
</tr>
<tr>
<td>United States TSCA Inventory</td>
<td>y (positive listing)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>HMIS</th>
<th>NFPA</th>
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</thead>
<tbody>
<tr>
<td>Health 0</td>
<td>0</td>
</tr>
<tr>
<td>Flammability 0</td>
<td>1</td>
</tr>
<tr>
<td>Physical hazards 0</td>
<td></td>
</tr>
<tr>
<td>Instability</td>
<td>0</td>
</tr>
<tr>
<td>Specific Hazard</td>
<td>--</td>
</tr>
</tbody>
</table>

**16. OTHER INFORMATION**

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.
## SAFETY DATA SHEET

**Revision Date:** 05/09/2017  
**Print Date:** 1/24/2018  
**SDS Number:** R0392869  
**Version:** 1.4

<table>
<thead>
<tr>
<th>Aqualon™ CMC 7L Sodium Carboxymethylcellulose Trademark, Ashland or its subsidiaries, registered in various countries 431161</th>
</tr>
</thead>
</table>

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