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Version: 1.0

CulminalTM MC 2000 S Methylcellulose TM Trademark, Ashland or its subsidiaries, registered in various countries413245

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

Ashland Regulatory Information Number 1-800-325-3751

P.O. Box 2219 Telephone 614-790-3333

Columbus, OH 43216 Emergency telephone 1-800-ASHLAND (1-800-274-

5263)

Product name Culminal™ MC 2000 S Methylcellulose

TM Trademark, Ashland or its subsidiaries, registered in various

countries

Product code 413245 Product Use Description No data

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance: solid, off-white

WARNING! MAY FORM COMBUSTIBLE DUST-AIR MIXTURES. DUST MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION.

Potential Health Effects

Exposure routes

Inhalation, Skin contact, Eye Contact, Ingestion

Eye contact

Dust can cause eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes.

Skin contact

May cause skin irritation. Symptoms may include redness, burning, and swelling of skin.

Ingestion

Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful.

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Inhalation

This material is a dust or may produce dust. Prolonged or repeated breathing of this material may result in chronic bronchitis (inflammation of the airways of the lungs). Symptoms include coughing and shortness of breath. Symptoms are not expected at air concentrations below the recommended exposure limits, if applicable (see Section 8.).

Aggravated Medical Condition

Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material:, lung (for example, asthma-like conditions), Kidney

Symptoms

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include:, stomach or intestinal upset (nausea, vomiting, diarrhea), thirst, irritation (nose, throat, airways)

Target Organs

No data

Carcinogenicity

Based on the available information, this material cannot be classified with regard to 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).

Reproductive hazard

There are no data available for assessing risk to the fetus from maternal exposure to this material.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous ComponentsCAS-No.ConcentrationSODIUM CHLORIDE7647-14-5>=1.5-<5%</td>

4. FIRST AID MEASURES

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ASHLAND: SAFETY DATA SHEET

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Eyes

If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.

Skin

Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention. Launder clothing before reuse.

Ingestion

Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

Inhalation

If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

Notes to physician

Hazards: No information available.

Treatment: No information available.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Water spray

Hazardous combustion products

carbon dioxide and carbon monoxide, hydrogen chloride, Sodium oxides

Precautions for fire-fighting

Organic dusts at sufficient concentration can form explosive mixtures in air. Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA). Use water spray to cool fire exposed containers and structures until fire is out if it can be done with minimal risk. Avoid spreading burning material with water used for cooling purposes.

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6. ACCIDENTAL RELEASE MEASURES

Personal precautions

For personal protection see section 8. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Avoid breathing dust.

Environmental precautions

Do not flush into surface water or sanitary sewer system.

Methods for cleaning up

Sweep up or vacuum up spillage and collect in suitable container for disposal. Pick up and arrange disposal without creating dust.

Other information

Comply with all applicable federal, state, and local regulations.

7. HANDLING AND STORAGE

Handling

Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed. Avoid dust formation. The material can accumulate static charge and can therefore cause electrical ignition of flammable atmospheres. Ensure all equipment is electrically grounded and bonded before beginning transfer operations. 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".

Storage

Store in a cool, dry, ventilated area. Keep from freezing.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

General advice

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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 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. For exposures to dust, utilize the exposure limits for Particulates (insoluble) Not Otherwise Classified (PNOC). ACGIH TWA - 10 mg/m3 inhalable fraction, 3 mg/m3 respirable fraction. OSHA PEL - 15 mg/m3 total dust, 5 mg/m3 respirable fraction.

Eve protection

Wear safety glasses or chemical splash goggles when dust exposure is possible.

Skin and body protection

Wear resistant gloves (consult your safety equipment supplier).

Respiratory protection

A NIOSH-approved air-purifying respirator with an appropriate cartridge and/or filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits (if applicable) or if overexposure has otherwise been determined. Protection provided by air-purifying respirators is limited. Use a positive pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are not known or any other circumstances where an air-purifying respirator may not provide adequate protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state

solid

Form

granules, powder

Colour

off-white

Odour

odourless

Boiling point/boiling range

no data available

Melting point/range

no data available

not applicable

Sublimation point

no data available

pH

6.5 - 8.0 @ 2 % (as aqueous solution)

Flash point

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Ignition temperature

Evaporation rate

Lower explosion limit/Upper explosion limit

Particle size

Vapour pressure

Relative vapour density

Density

Bulk density

380.00 °C

no data available

Bulk density no data available
Water solubility soluble, Limited by viscosity

no data available Solubility no data available Partition coefficient: n-octanol/water no data available log Pow no data available Autoignition temperature no data available Viscosity, dynamic no data available Viscosity, kinematic no data available Solids in Solution no data available Decomposition temperature no data available **Burning** number no data available **Dust explosion constant**

10. STABILITY AND REACTIVITY

Stability

Stable.

Minimum ignition energy

Conditions to avoid

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

no data available

Incompatible products

Acids, Bases, Oxidizing agents

Hazardous decomposition products

carbon dioxide and carbon monoxide, hydrogen chloride, Sodium oxides

Hazardous reactions

Product will not undergo hazardous polymerization.

Thermal decomposition

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No data

11. TOXICOLOGICAL INFORMATION

Acute oral toxicity : LD 50 Rat : > 2,000 mg/kg

Acute inhalation toxicity

SODIUM CHLORIDE : LC 50 Rat: > 42 g/m3; 1 h

Acute dermal toxicity

SODIUM CHLORIDE : LD 50 Rabbit: > 10 g/kg

12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)

Biodegradability : Slowly biodegradable

Bioaccumulation

SODIUM CHLORIDE : no data available

Ecotoxicity effects

Toxicity to fish : LC 50 Fish: > 100.00 mg/L

Toxicity to daphnia and other aquatic invertebrates.

SODIUM CHLORIDE : 48 h static test EC 50 Water flea (Daphnia magna):

340.70 - 469.20 mg/L

Toxicity to algae

SODIUM CHLORIDE : no data available

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Toxicity to bacteria

SODIUM CHLORIDE

: no data available

Biochemical Oxygen Demand (BOD)

: Biochemical oxygen demand within 5 days: > 0 - 100

mg/g

Chemical Oxygen Demand (COD)

SODIUM CHLORIDE

: no data available

Additional ecological information

SODIUM CHLORIDE

: no data available

13. DISPOSAL CONSIDERATIONS

Waste disposal methods

For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Ashland Distribution's Environmental Services Group at 800-637-7922.

14. TRANSPORT INFORMATION

REGULATION

ID NUMBER	PROPER SHIPPING NAME	*HAZARD CLASS	SUBSIDIARY HAZARDS	PACKING GROUP	MARINE POLLUTANT / LTD. QTY.
--------------	----------------------	------------------	-----------------------	------------------	------------------------------------

MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND WASTES

Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER

Not dangerous goods

INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO

Not dangerous goods

INTERNATIONAL MARITIME DANGEROUS GOODS

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Not dangerous goods

TRANSPORT CANADA - INLAND WATERWAYS

Not dangerous goods

TRANSPORT CANADA - RAIL

Not dangerous goods

TRANSPORT CANADA - ROAD

Not dangerous goods

U.S. DOT - INLAND WATERWAYS

Not dangerous goods

U.S. DOT - RAIL

Not dangerous goods

U.S. DOT - ROAD

Not dangerous goods

*ORM = ORM-D, CBL = COMBUSTIBLE LIQUID

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.

15. REGULATORY INFORMATION

California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

SARA Hazard Classification

Acute Health Hazard Fire Hazard

New Jersey RTK Label Information

CELLULOSE

254504001-5673

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SODIUM CHLORIDE 7647-14-5

Pennsylvania RTK Label Information

CELLULOSE 254504001-5673

Notification status

US. Toxic Substances Control Act

Canada. Canadian Environmental Protection Act (CEPA).

y (positive listing)
y (positive listing)

Domestic Substances List (DSL). (Can. Gaz. Part II, Vol. 133)

Australia. Industrial Chemical (Notification and Assessment) y (positive listing)

Australia, industrial Chemical (Notification and Assessment) y (positive fishing)

New Zealand. Inventory of Chemicals (NZIoC), as published n (Negative listing)

by ERMA New Zealand
Japan. Kashin-Hou Law List y (pos

Japan. Kashin-Hou Law Listy (positive listing)Korea. Toxic Chemical Control Law (TCCL) Listy (positive listing)

Philippines. The Toxic Substances and Hazardous and Nuclear y (positive listing)

Waste Control Act
China. Inventory of Existing Chemical Substances
y (positive listing)

	HMIS	NFPA	
Health	2	2	
Flammability	1	1	
Physical hazards	0		
Instability	William William Street	0	
Specific Hazard	A	T1	

16. OTHER INFORMATION

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 MSDS has been prepared by Ashland's Environmental Health and Safety Department (1-800-325-3751).

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