



# SAFETY DATA SHEET

**MATERION**

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1. Product identifier

|                              |                         |
|------------------------------|-------------------------|
| <b>Name of the substance</b> | (hydroxyethyl)cellulose |
| <b>Identification number</b> | 9004-62-0 (CAS number)  |
| <b>Synonyms</b>              | None.                   |
| <b>Document number</b>       | 1VL                     |
| <b>Materion Code</b>         | 1VL                     |
| <b>Issue date</b>            | 27-February-2017        |
| <b>Version number</b>        | 02                      |
| <b>Revision date</b>         | 12-January-2018         |
| <b>Supersedes date</b>       | 27-February-2017        |

### 1.2. Relevant identified uses of the substance or mixture and uses advised against

|                             |                |
|-----------------------------|----------------|
| <b>Identified uses</b>      | Not available. |
| <b>Uses advised against</b> | None known.    |

### 1.3. Details of the supplier of the safety data sheet

#### Supplier

|                       |   |
|-----------------------|---|
| <b>Company name</b>   | Materion Advanced Chemicals Inc.  |
| <b>Address</b>        | 407 N. 13th Street<br>1316 W. St. Paul Avenue<br>Milwaukee, WI 53233<br>United States |
| <b>Division</b>       | Milwaukee   |
| <b>Telephone</b>      | 414.212.0257  |
| <b>e-mail</b>         | advancedmaterials@materion.com  |
| <b>Contact person</b> | Noreen Atkinson   |

### 1.4. Emergency telephone number

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

The substance has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

#### Classification according to Regulation (EC) No 1272/2008 as amended

This substance does not meet the criteria for classification according to Regulation (EC) 1272/2008 as amended.

|                       |   |
|-----------------------|---|
| <b>Hazard summary</b> | Exposure to powder or dusts may be irritating to eyes, nose and throat. The material as sold in solid form is generally not considered hazardous. However, if the process involves grinding, melting, cutting or any other process that causes a release of dust or fumes, hazardous levels of airborne particulate could be generated. |
|-----------------------|---|

### 2.2. Label elements

#### Label according to Regulation (EC) No. 1272/2008 as amended

|                          |  |
|--------------------------|--|
| <b>Contains:</b>         | (hydroxyethyl)cellulose                                      |
| <b>Hazard pictograms</b> | None.  |
| <b>Signal word</b>       | None.  |
| <b>Hazard statements</b> | The substance does not meet the criteria for classification. |

#### Precautionary statements

|                   |  |
|-------------------|--|
| <b>Prevention</b> | Observe good industrial hygiene practices.                                     |
| <b>Response</b>   | Wash hands after handling.   |
| <b>Storage</b>    | Store away from incompatible materials.  |
| <b>Disposal</b>   | Dispose of waste and residues in accordance with local authority requirements. |

**Supplemental label information** 100 % of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment. 100 % of the mixture consists of component(s) of unknown acute oral toxicity. 100 % of the mixture consists of component(s) of unknown acute inhalation toxicity. 100 % of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 100 % of the mixture consists of component(s) of unknown acute dermal toxicity.  
For further information, please contact the Product Stewardship Department at +1.800.862.4118.

**2.3. Other hazards** None known.

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

#### General information

| Chemical name           | %   | CAS-No. / EC No. | REACH Registration No. | INDEX No. | Notes |
|-------------------------|-----|------------------|------------------------|-----------|-------|
| (hydroxyethyl)cellulose | 100 | 9004-62-0        | -                      | -         |       |
| <b>Classification:</b>  | -   |                  |                        |           |       |

#### List of abbreviations and symbols that may be used above

#: This substance has been assigned Union workplace exposure limit(s).

M: M-factor

PBT: persistent, bioaccumulative and toxic substance.

vPvB: very persistent and very bioaccumulative substance.

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

## SECTION 4: First aid measures

#### General information

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

#### 4.1. Description of first aid measures

##### Inhalation

Move to fresh air. Call a physician if symptoms develop or persist.

##### Skin contact

Wash off with soap and water. Get medical attention if irritation develops and persists.

##### Eye contact

Do not rub eyes. Rinse with water. Get medical attention if irritation develops and persists.

##### Ingestion

Rinse mouth. Get medical attention if symptoms occur.

#### 4.2. Most important symptoms and effects, both acute and delayed

Dusts may irritate the respiratory tract, skin and eyes.

#### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

## SECTION 5: Firefighting measures

#### General fire hazards

No unusual fire or explosion hazards noted.

#### 5.1. Extinguishing media

##### Suitable extinguishing media

Water spray. Foam. Powder. Carbon dioxide (CO2).

##### Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

#### 5.2. Special hazards arising from the substance or mixture

During fire, gases hazardous to health may be formed.

#### 5.3. Advice for firefighters

##### Special protective equipment for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

##### Special firefighting procedures

Use water spray to cool unopened containers.

#### Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### For non-emergency personnel

Keep unnecessary personnel away. Wear appropriate protective equipment and clothing during clean-up. For personal protection, see section 8 of the SDS.

|  |  |
|--|--|
| <b>For emergency responders</b>                                  | Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.  |
| <b>6.2. Environmental precautions</b>                            | Avoid discharge into drains, water courses or onto the ground.   |
| <b>6.3. Methods and material for containment and cleaning up</b> | Avoid the generation of dusts during clean-up. Collect dust using a vacuum cleaner equipped with HEPA filter. Stop the flow of material, if this is without risk.<br><br>Large Spills: Wet down with water and dike for later disposal. Shovel the material into waste container. Following product recovery, flush area with water.<br><br>Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal. |
| <b>6.4. Reference to other sections</b>                          | For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.  |

## SECTION 7: Handling and storage

|  |   |
|--|---|
| <b>7.1. Precautions for safe handling</b>                                | Minimise dust generation and accumulation. Provide appropriate exhaust ventilation at places where dust is formed. Practice good housekeeping.    |
| <b>7.2. Conditions for safe storage, including any incompatibilities</b> | Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS). |
| <b>7.3. Specific end use(s)</b>  | Not available.  |

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

|   |  |
|---|--|
| <b>Occupational exposure limits</b>               | No exposure limits noted for ingredient(s).                |
| <b>Biological limit values</b>                    | No biological exposure limits noted for the ingredient(s). |
| <b>Recommended monitoring procedures</b>          | Follow standard monitoring procedures.                     |
| <b>Derived no effect levels (DNELs)</b>           | Not available.   |
| <b>Predicted no effect concentrations (PNECs)</b> | Not available.   |

### 8.2. Exposure controls

**Appropriate engineering controls** If material is ground, cut, or used in any operation which may generate dusts, use appropriate local exhaust ventilation to keep exposures below the recommended exposure limits.

### Individual protection measures, such as personal protective equipment

|                               |   |
|-------------------------------|---|
| <b>General information</b>    | Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment. |
| <b>Eye/face protection</b>    | Wear safety glasses with side shields (or goggles).   |
| <b>Skin protection</b>        |   |
| - <b>Hand protection</b>      | Wear appropriate chemical resistant gloves.   |
| - <b>Other</b>                | Wear suitable protective clothing.  |
| <b>Respiratory protection</b> | Wear respirator with dust filter.   |
| <b>Thermal hazards</b>        | Wear appropriate thermal protective clothing, when necessary.   |

**Hygiene measures** Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

**Environmental exposure controls** Environmental manager must be informed of all major releases.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

#### Appearance

|                        |                |
|------------------------|----------------|
| <b>Physical state</b>  | Solid.         |
| <b>Form</b>            | Powder.        |
| <b>Colour</b>          | Not available. |
| <b>Odour</b>           | Not available. |
| <b>Odour threshold</b> | Not available. |
| <b>pH</b>              | 7              |

|   |                 |
|---|-----------------|
| <b>Melting point/freezing point</b>                 | Not available.  |
| <b>Initial boiling point and boiling range</b>      | Not available.  |
| <b>Flash point</b>                                  | Not available.  |
| <b>Evaporation rate</b>                             | Not available.  |
| <b>Flammability (solid, gas)</b>                    | Not available.  |
| <b>Upper/lower flammability or explosive limits</b> |                 |
| <b>Flammability limit - lower (%)</b>               | Not available.  |
| <b>Flammability limit - upper (%)</b>               | Not available.  |
| <b>Vapour pressure</b>                              | Not available.  |
| <b>Vapour density</b>                               | Not available.  |
| <b>Relative density</b>                             | Not available.  |
| <b>Solubility(ies)</b>                              |                 |
| <b>Solubility (water)</b>                           | Not available.  |
| <b>Partition coefficient (n-octanol/water)</b>      | Not available.  |
| <b>Auto-ignition temperature</b>                    | 420 °C (788 °F) |
| <b>Decomposition temperature</b>                    | Not available.  |
| <b>Viscosity</b>                                    | Not available.  |
| <b>Explosive properties</b>                         | Not explosive.  |
| <b>Oxidising properties</b>                         | Not oxidising.  |

## 9.2. Other information

|                          |                      |
|--------------------------|----------------------|
| <b>Density</b>           | 1,00 g/cm3 estimated |
| <b>Molecular formula</b> | UNKNOWN              |
| <b>Specific gravity</b>  | 1                    |

## SECTION 10: Stability and reactivity

|   |   |
|---|---|
| <b>10.1. Reactivity</b>                         | The product is stable and non-reactive under normal conditions of use, storage and transport. |
| <b>10.2. Chemical stability</b>                 | Material is stable under normal conditions.   |
| <b>10.3. Possibility of hazardous reactions</b> | No dangerous reaction known under conditions of normal use.                                   |
| <b>10.4. Conditions to avoid</b>                | Contact with incompatible materials.  |
| <b>10.5. Incompatible materials</b>             | Strong oxidising agents.  |
| <b>10.6. Hazardous decomposition products</b>   | No hazardous decomposition products are known.  |

## SECTION 11: Toxicological information

**General information** Occupational exposure to the substance or mixture may cause adverse effects.

### Information on likely routes of exposure

|                     |   |
|---------------------|---|
| <b>Inhalation</b>   | Dust may irritate respiratory system.   |
| <b>Skin contact</b> | Dust or powder may irritate the skin.   |
| <b>Eye contact</b>  | Dust may irritate the eyes.   |
| <b>Ingestion</b>    | May cause discomfort if swallowed. However, ingestion is not likely to be a primary route of occupational exposure. |

**Symptoms** Dusts may irritate the respiratory tract, skin and eyes.

### 11.1. Information on toxicological effects

|  |   |
|--|---|
| <b>Acute toxicity</b>                    | Not known.  |
| <b>Skin corrosion/irritation</b>         | Due to partial or complete lack of data the classification is not possible. |
| <b>Serious eye damage/eye irritation</b> | Due to partial or complete lack of data the classification is not possible. |
| <b>Respiratory sensitisation</b>         | Due to partial or complete lack of data the classification is not possible. |
| <b>Skin sensitisation</b>                | Due to partial or complete lack of data the classification is not possible. |
| <b>Germ cell mutagenicity</b>            | Due to partial or complete lack of data the classification is not possible. |
| <b>Carcinogenicity</b>                   | Due to partial or complete lack of data the classification is not possible. |

**Hungary. 26/2000 EüM Ordinance on protection against and preventing risk relating to exposure to carcinogens at work (as amended)**

Not listed.

|   |   |
|---|---|
| <b>Reproductive toxicity</b>                              | Due to partial or complete lack of data the classification is not possible. |
| <b>Specific target organ toxicity - single exposure</b>   | Due to partial or complete lack of data the classification is not possible. |
| <b>Specific target organ toxicity - repeated exposure</b> | Due to partial or complete lack of data the classification is not possible. |
| <b>Aspiration hazard</b>                                  | Due to partial or complete lack of data the classification is not possible. |
| <b>Mixture versus substance information</b>               | No information available.   |
| <b>Other information</b>                                  | Not available.  |

## **SECTION 12: Ecological information**

|  |   |
|--|---|
| <b>12.1. Toxicity</b>                                  | Due to partial or complete lack of data the classification for hazardous to the aquatic environment, is not possible.   |
| <b>12.2. Persistence and degradability</b>             | No data is available on the degradability of this product.  |
| <b>12.3. Bioaccumulative potential</b>                 | No data available.  |
| <b>Partition coefficient n-octanol/water (log Kow)</b> | Not available.  |
| <b>Bioconcentration factor (BCF)</b>                   | Not available.  |
| <b>12.4. Mobility in soil</b>                          | No data available.  |
| <b>12.5. Results of PBT and vPvB assessment</b>        | Not available.  |
| <b>12.6. Other adverse effects</b>                     | No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component. |

## **SECTION 13: Disposal considerations**

### **13.1. Waste treatment methods**

|                                     |  |
|-------------------------------------|--|
| <b>Residual waste</b>               | Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions). |
| <b>Contaminated packaging</b>       | Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.       |
| <b>EU waste code</b>                | The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.   |
| <b>Disposal methods/information</b> | Collect and reclaim or dispose in sealed containers at licensed waste disposal site.   |
| <b>Special precautions</b>          | Dispose in accordance with all applicable regulations.   |

## **SECTION 14: Transport information**

### **ADR**

14.1. - 14.6.: Not regulated as dangerous goods.

### **RID**

14.1. - 14.6.: Not regulated as dangerous goods.

### **ADN**

14.1. - 14.6.: Not regulated as dangerous goods.

### **IATA**

14.1. - 14.6.: Not regulated as dangerous goods.

### **IMDG**

14.1. - 14.6.: Not regulated as dangerous goods.

## **SECTION 15: Regulatory information**

### **15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

#### **EU regulations**

**Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended**

Not listed.

**Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended**

Not listed.

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended**

Not listed.

**Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended**

Not listed.

**Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA**

Not listed.

#### **Authorisations**

**Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended**

Not listed.

#### **Restrictions on use**

**Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended**

Not listed.

**Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.**

Not listed.

#### **Other EU regulations**

**Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended**

Not listed.

#### **Other regulations**

The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP Regulation) as amended. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006, as amended.

#### **National regulations**

Follow national regulation for work with chemical agents.

#### **15.2. Chemical safety assessment**

No Chemical Safety Assessment has been carried out.

### **SECTION 16: Other information**

#### **List of abbreviations**

Not available.

#### **Information on evaluation method leading to the classification of mixture**

Not applicable.

#### **Disclaimer**

Materion Advanced Chemicals Inc. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. This document has been prepared using data from sources considered to be technically reliable and the information is believed to be correct. Materion makes no warranties, expressed or implied, as to the accuracy of the information contained herein. Materion cannot anticipate all conditions under which this information and its products may be used and the actual conditions of use are beyond its control. The user is responsible to evaluate all available information when using this product for any particular use and to comply with all Federal, State, Provincial and Local laws, statutes and regulations.