

## SAFETY DATA SHEET

### Hydroxypropyl methylcellulose (HPMC)

According to Regulation (EU) No 453/2010

#### SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

##### 1.1. Product identifier

**Product name** Hydroxypropyl methylcellulose (HPMC)  
**Synonyms, Trade Names** Cellulose, 2-hydroxypropyl methyl ether, MECELLOSE (HPMC)

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

**Identified uses** Thickener / Binder / Construction Additive / Coating compounds / Paints / Surface Coatings

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

**Supplier** (OR of Samsung Fine Chemicals)  
 KIST-Europe, Campus E71  
 Universitaet des Saarlandes  
 66123, Saarbruecken  
 Germany  
 Tel: +49 681 9382 334  
 Fax.: +49 681 9382 319  
 e-mail: reach.it@kist-europe.de

**Manufacturer** SAMSUNG FINE CHEMICALS CO.,LTD  
 190, Yeochun-Dong,  
 Nam-Gu, Ulsan,  
 Korea 680-090  
 Tel: +82-52-270-6700  
 Fax: +82-52-270-6739  
 e-mail: sangku.lee@samsung.com

##### 1.4. Emergency telephone number

+49 551 19240  
 GIZ-Nord, Goettingen, Germany (English only)

#### SECTION 2: HAZARDS IDENTIFICATION

##### 2.1. Classification of the substance or mixture

**Classification (EC 1272/2008)**

Physical and Chemical Hazards	Not classified.
Human health	Not classified.
Environment	Not classified.

**Classification (1999/45/EEC)** Not classified.

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

##### Physical and Chemical Hazards

Fine particles may form explosive vapour/air mixtures.

##### 2.2. Label elements

**Contains** Hydroxypropyl Methylcellulose

##### Label In Accordance With (EC) No. 1272/2008

No pictogram required.

##### 2.3. Other hazards

Not available.

#### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

##### 3.2. Mixtures

## Hydroxypropyl methylcellulose (HPMC)

<b>Hydroxypropyl Methylcellulose</b>		<b>100%</b>
<b>CAS-No.: 9004-65-3</b>	<b>EC No.:</b>	
Classification (EC 1272/2008) Not classified.	Classification (67/548/EEC) Not classified.	

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

### SECTION 4: FIRST AID MEASURES

#### **4.1. Description of first aid measures**

##### **General information**

Get medical attention if any discomfort continues.

##### **Inhalation**

Move the exposed person to fresh air at once.

##### **Ingestion**

DO NOT INDUCE VOMITING!

Rinse mouth thoroughly.

Drink plenty of water.

Get medical attention.

##### **Skin contact**

Remove contaminated clothing immediately and wash skin with soap and water.

Continue to rinse for at least 15 minutes.

##### **Eye contact**

Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart.

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

##### **Inhalation.**

Not available.

##### **Ingestion**

Not available.

##### **Skin contact**

Not available.

##### **Eye contact**

Not available.

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

No specific first aid measures noted.

### SECTION 5: FIREFIGHTING MEASURES

#### **5.1. Extinguishing media**

##### **Extinguishing media**

Extinguish with alcohol-resistant foam, carbon dioxide or dry powder. Water spray.

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

##### **Specific hazards**

In case of fire, toxic gases may be formed.

#### **5.3. Advice for firefighters**

##### **Special Fire Fighting Procedures**

NOTE! Use air-supplied respirators to protect against gases/fumes.

##### **Protective equipment for fire-fighters**

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

### SECTION 6: ACCIDENTAL RELEASE MEASURES

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

Wear protective clothing as described in Section 8 of this safety data sheet.

#### **6.2. Environmental precautions**

## Hydroxypropyl methylcellulose (HPMC)

Collect and dispose of spillage as indicated in section 13.

### 6.3. Methods and material for containment and cleaning up

Collect powder using special dust vacuum cleaner with particle filter or carefully sweep into closed container.

### 6.4. Reference to other sections

For personal protection, see section 8. For waste disposal, see section 13.

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

Good personal hygiene is necessary. Wash hands and contaminated areas with water and soap before leaving the work site. Avoid inhalation of dust and contact with skin and eyes.

### 7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed original container in a dry and cool place. Keep away from heat, sparks and open flame. Storage tanks and other containers must be grounded.

#### Storage Class

Risk of dust explosion. Lower Explosion Limit: 180 g/m<sup>3</sup>

### 7.3. Specific end use(s)

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

#### Ingredient Comments

No exposure limits noted for ingredient(s).

### 8.2. Exposure controls

#### Protective equipment



#### Process conditions

Provide eyewash station.

#### Engineering measures

Provide sufficient ventilation for operations causing dust formation.

#### Respiratory equipment

Wear suitable respiratory protection.

#### Hand protection

Use suitable protective gloves if risk of skin contact.

#### Eye protection

Wear approved safety goggles.

#### Hygiene measures

Wash contaminated clothing before reuse. Wash hands after contact. Remove contaminated clothing and wash the skin thoroughly with soap and water after work.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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

Appearance	Powder, dust
Colour	White / off-white.
Odour	No characteristic odour.
Solubility	Soluble in water.
Initial boiling point and boiling range	N.A.
Melting point (°C)	N.A.
Bulk Density	0.2~0.7
Vapour density (air=1)	N.A.
Vapour pressure	N.A.
pH-Value, Diluted Solution	4-9 (2% water solution)

## Hydroxypropyl methylcellulose (HPMC)

<b>Viscosity</b>	Check product specification.
<b>Flash point</b>	N.A.
<b>Auto Ignition Temperature (°C)</b>	380

### 9.2. Other information

Specific gravity: 1.00 (1% solution, ISO 2811-1:1997)

**Particle Size (Micron)** N.A.

**Mol. Weight** > 2000 g/mol

## SECTION 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

Not available.

### 10.2. Chemical stability

Stable under normal temperature conditions and recommended use.

### 10.3. Possibility of hazardous reactions

#### **Hazardous Polymerisation**

Unknown.

### 10.4. Conditions to avoid

Avoid contact with strong oxidisers. Avoid heat.

### 10.5. Incompatible materials

#### **Materials To Avoid**

Strong oxidising substances.

### 10.6. Hazardous decomposition products

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects

#### Acute toxicity:

##### **Acute Toxicity (Oral LD50)**

> 2000 mg/kg Rat

##### **Acute Toxicity (Dermal LD50)**

Not available.

##### **Acute Toxicity (Inhalation LC50)**

Not available.

#### Skin Corrosion/Irritation:

##### **Extreme pH.**

Not available.

#### Respiratory or skin sensitisation:

##### **Respiratory sensitisation**

Not available.

##### **Skin sensitisation**

Not available.

#### Carcinogenicity:

##### **Carcinogenicity**

Not available.

#### Reproductive Toxicity:

##### **Reproductive Toxicity - Fertility**

Not available.

#### Specific target organ toxicity - single exposure:

##### **STOT - Single exposure**

Not available.

## Hydroxypropyl methylcellulose (HPMC)

### Specific target organ toxicity - repeated exposure:

#### STOT - Repeated exposure

Not available.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

LC 50, 96 Hrs, Fish mg/l                    >= 100

#### Acute Toxicity - Aquatic Invertebrates

Not available.

#### Acute Toxicity - Aquatic Plants

Not available.

#### Acute Toxicity - Microorganisms

Not available.

#### Chronic Toxicity - Fish Early life Stage

Not available.

### 12.2. Persistence and degradability

#### Degradability

No data available.

### 12.3. Bioaccumulative potential

#### Bioaccumulative potential

No data available on bioaccumulation.

### 12.4. Mobility in soil

#### Mobility:

Not available.

### 12.5. Results of PBT and vPvB assessment

Not available.

### 12.6. Other adverse effects

Not available.

## SECTION 13: DISPOSAL CONSIDERATIONS

### General information

Waste to be treated as controlled waste. Disposal to licensed waste disposal site in accordance with local Waste Disposal Authority.

### 13.1. Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements.

## SECTION 14: TRANSPORT INFORMATION

### General

The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).

### 14.1. UN number

Not available.

### 14.2. UN proper shipping name

Not available.

### 14.3. Transport hazard class(es)

Not available.

### 14.4. Packing group

Not available.

## Hydroxypropyl methylcellulose (HPMC)

### 14.5. Environmental hazards

Environmentally Hazardous Substance/Marine Pollutant

No.

### 14.6. Special precautions for user

Not available.

### 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

## SECTION 15: REGULATORY INFORMATION

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

#### Environmental Listing

Australia AICS not determined  
 Canada DSL listed not regulated  
 Canada NDSL not determined  
 China IECSC listed not regulated  
 Europe REACH exempt  
 Japan METI/ENCS listed not regulated  
 Korea KECI listed not regulated  
 New Zealand HSNO not determined  
 New Zealand NZIoC listed not regulated  
 Philipines PICCS listed not regulated  
 USA TSCA listed not regulated  
 Taiwan NCSR listed not regulated

#### Authorisations (Title VII Regulation 1907/2006)

No specific authorisations are noted for this product.

#### Restrictions (Title VIII Regulation 1907/2006)

No specific restrictions of use are noted for this product.

### 15.2. Chemical Safety Assessment

No chemical safety assessment has been carried out.

## SECTION 16: OTHER INFORMATION

<b>Issued By</b>	KIST Europe
<b>Revision Date</b>	20.03.2014
<b>Revision</b>	2
<b>SDS No.</b>	MSDS-P01-030
<b>Safety Data Sheet Status</b>	Approved.
<b>Date</b>	19.10.2011
<b>Risk Phrases In Full</b>	
NC	Not classified.

#### Disclaimer

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