



# Safety Data Sheet

Dow Chemical Company Ltd

**Product Name:** CELLOSIZE (TM) POLYMER HEC-10 Europe

**Revision Date:** 2009/01/17

**Print Date:** 14 Feb 2014

Dow Chemical Company Ltd encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

## 1. Identification of the substance/preparation and of the company/undertaking

### Product Name

CELLOSIZE <sup>TM</sup> POLYMER HEC-10 Europe

### Use of the substance/preparation

Thickener. Film former. Stabiliser. Protective colloid. Binder. We recommend that you use this product in a manner consistent with the listed use. If your intended use is not consistent with the stated use, please contact your sales or technical service representative.

### COMPANY IDENTIFICATION

Dow Chemical Company Ltd  
Diamond House, Lotus Park  
Kingsbury Crescent  
TW18 3AG Staines, Middlesex  
United Kingdom

Customer Information Number:

0203 139 4000

[SDSQuestion@dow.com](mailto:SDSQuestion@dow.com)

For questions about this SDS, contact: [SDSQuestion@dow.com](mailto:SDSQuestion@dow.com)

### EMERGENCY TELEPHONE NUMBER

**24-Hour Emergency Contact:**

0031 115 694 982

**Local Emergency Contact:**

00 31 115 69 4982

## 2. Hazards Identification

This product is not classified as dangerous according to EC criteria.

## 3. Composition/information on ingredients

Component	Amount	Classification:	CAS #	EC #
Hydroxyethyl cellulose##	>= 86.0 %	Not classified.	9004-62-0	Polymer
Sodium acetate##	<= 7.5 %	Not classified.	127-09-3	204-823-8
Water##	<= 5.0 %	Not classified.	7732-18-5	231-791-2

®(TM)\*Trademark of The Dow Chemical Company ("Dow") or an affiliated company of Dow

Propan-2-ol; isopropyl alcohol; isopropanol	<= 3.0 %	F: R11; Xi: R36; R67	67-63-0	200-661-7
Cellulose#	<= 1.5 %	Not classified.	9004-34-6	232-674-9

# Substance(s) with an Occupational Exposure Limit.

## Voluntarily disclosed component(s).

See Section 16 for full text of R-phrases.

## 4. First-aid measures

**Eye Contact:** Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist. May cause injury due to mechanical action.

**Skin Contact:** Wash skin with plenty of water.

**Inhalation:** Move person to fresh air. If not breathing, give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask, etc). If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility.

**Ingestion:** If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

**Notes to Physician:** Maintain adequate ventilation and oxygenation of the patient. Consider hemodialysis for patients with persistent hypotension or coma unresponsive to standard therapy (isopropanol levels >400 - 500 mg/dl). (Goldfrank 1998, King et al, 1970). No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

**Emergency Personnel Protection:** First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection) If potential for exposure exists refer to Section 8 for specific personal protective equipment.

## 5. Fire Fighting Measures

**Extinguishing Media:** Water. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers.

**Fire Fighting Procedures:** Keep people away. Isolate fire and deny unnecessary entry. Soak thoroughly with water to cool and prevent re-ignition. Cool surroundings with water to localize fire zone. Hand held dry chemical or carbon dioxide extinguishers may be used for small fires. Dust explosion hazard may result from forceful application of fire extinguishing agents.

**Special Protective Equipment for Firefighters:** Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

**Unusual Fire and Explosion Hazards:** Do not permit dust to accumulate. When suspended in air dust can pose an explosion hazard. Minimize ignition sources. If dust layers are exposed to elevated temperatures, spontaneous combustion may occur. Pneumatic conveying and other mechanical handling operations can generate combustible dust. To reduce the potential for dust explosions, electrically bond and ground equipment and do not permit dust to accumulate. Dust can be ignited by static discharge.

**Hazardous Combustion Products:** During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Carbon monoxide. Carbon dioxide.

## 6. Accidental Release Measures

**Steps to be Taken if Material is Released or Spilled:** Sweep up. Use care to minimize generation of airborne dust. Do not use water for cleanup. Collect in suitable and properly labeled containers. See Section 13, Disposal Considerations, for additional information.

**Personal Precautions:** Material becomes slippery when wet. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

**Environmental Precautions:** Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

## 7. Handling and Storage

### Handling

**General Handling:** Avoid contact with eyes. Wash thoroughly after handling. Good housekeeping and controlling of dusts are necessary for safe handling of product. No smoking, open flames or sources of ignition in handling and storage area. Electrically bond and ground all containers, personnel and equipment before transfer or use of material. Keep away from heat, sparks and flame. Keep container closed. Buildup of flammable/air mixtures is possible without adequate ventilation. Use only in well ventilated area. Ventilate shipping container before entering. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

### Storage

Store in a dry place. Protect from atmospheric moisture. Store in a well-ventilated place.

**Shelf life: Use within 36 Months**

## 8. Exposure Controls / Personal Protection

### Exposure Limits

Component	List	Type	Value
Propan-2-ol; isopropyl alcohol; isopropanol	UK WEL	TWA	999 mg/m <sup>3</sup> 400 ppm
	UK WEL	STEL	1,250 mg/m <sup>3</sup> 500 ppm
	ACGIH	TWA	200 ppm
	ACGIH	STEL	400 ppm
Cellulose	Ireland OELV	TWA	4 mg/m <sup>3</sup>
		Respirable dust.	
	Ireland OELV	TWA Total inhalable dust.	10 mg/m <sup>3</sup>
	Ireland OELV	STEL Total inhalable dust.	20 mg/m <sup>3</sup>
	ACGIH	TWA	10 mg/m <sup>3</sup>
	UK WEL	TWA	10 mg/m <sup>3</sup>
		Inhalable dust.	
	UK WEL	TWA	4 mg/m <sup>3</sup>
		Respirable dust.	
	UK WEL	STEL	20 mg/m <sup>3</sup>
		Inhalable dust.	

A "skin" notation following the inhalation exposure guideline refers to the potential for dermal absorption of the material including mucous membranes and the eyes either by contact with vapors or by direct skin contact.

It is intended to alert the reader that inhalation may not be the only route of exposure and that measures to minimize dermal exposures should be considered.

### Personal Protection

**Eye/Face Protection:** Use safety glasses. Safety glasses should be consistent with EN 166 or equivalent. If there is a potential for exposure to particles which could cause eye discomfort, wear chemical goggles. Chemical goggles should be consistent with EN 166 or equivalent.

**Skin Protection:** No precautions other than clean body-covering clothing should be needed.

**Hand protection:** Chemical protective gloves should not be needed when handling this material. Consistent with general hygienic practice for any material, skin contact should be minimized.

**Respiratory Protection:** Atmospheric levels should be maintained below the exposure guideline. When respiratory protection is required, use an approved air-purifying or positive-pressure supplied-air respirator depending on the potential airborne concentration. For emergency and other conditions where the exposure guideline may be exceeded, use an approved positive-pressure self-contained breathing apparatus or positive-pressure air line with auxiliary self-contained air supply. In confined or poorly ventilated areas, use an approved self-contained breathing apparatus or positive pressure air line with auxiliary self-contained air supply. Use the following CE approved air-purifying respirator: Organic vapor cartridge with a particulate pre-filter, type AP2.

**Ingestion:** Use good personal hygiene. Do not consume or store food in the work area. Wash hands before smoking or eating.

### Engineering Controls

**Ventilation:** Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

## 9. Physical and Chemical Properties

Physical State	Powder
Color	White
Odor	Mild
Flash Point - Closed Cup	No test data available
Flammable Limits In Air	<b>Lower:</b> No test data available <b>Upper:</b> No test data available
Autoignition Temperature	$\geq 400$ °C <i>Literature</i>
Vapor Pressure	Not applicable
Boiling Point (760 mmHg)	Not applicable.
Vapor Density (air = 1)	Not applicable
Specific Gravity (H <sub>2</sub> O = 1)	1.30 - 1.40 <i>Literature</i>
Freezing Point	Not applicable
Melting Point	No test data available
Solubility in Water (by weight)	completely miscible with water
pH	Not applicable
Decomposition	No test data available
Temperature	
Kinematic Viscosity	Not applicable

## 10. Stability and Reactivity

### Stability/Instability

Thermally stable at typical use temperatures. Hygroscopic.

**Conditions to Avoid:** Avoid temperatures above 200°C (392°F) Exposure to elevated temperatures can cause product to decompose. Avoid static discharge. Avoid moisture.

**Incompatible Materials:** Avoid contact with oxidizing materials.

### Hazardous Polymerization

Will not occur.

### Thermal Decomposition

Decomposition products depend upon temperature, air supply and the presence of other materials.

## 11. Toxicological Information

### Acute Toxicity

#### Ingestion

Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury.

Swallowing may result in gastrointestinal irritation.

Single dose oral LD50 has not been determined.

For the major component(s): Estimated LD50, Rat > 8,700 mg/kg

#### Eye Contact

May cause slight eye irritation. May cause pain disproportionate to the level of irritation to eye tissues.

Solid or dust may cause irritation or corneal injury due to mechanical action.

#### Skin Contact

Prolonged exposure not likely to cause significant skin irritation.

#### Skin Absorption

Prolonged skin contact is unlikely to result in absorption of harmful amounts.

The dermal LD50 has not been determined.

#### Inhalation

Dust may cause irritation to upper respiratory tract (nose and throat). Mist may cause irritation of upper respiratory tract (nose and throat). Excessive exposure (400 ppm) to isopropanol may cause eye, nose and throat irritation. Incoordination, confusion, hypotension, hypothermia, circulatory collapse, respiratory arrest and death may follow a longer duration or higher levels. Observations in animals include middle ear lining damage upon exposure to vapors of isopropanol. However, the relevance of this to humans is unknown

### Repeated Dose Toxicity

For the minor component(s): Isopropyl alcohol. In animals, effects have been reported on the following organs: Liver.

### Chronic Toxicity and Carcinogenicity

Similar cellulose derivatives did not cause cancer in long-term animal studies.

### Developmental Toxicity

Isopropanol has been toxic to the fetus in laboratory animals at doses toxic to the mother.

### Reproductive Toxicity

In animal studies, a similar cellulose derivative has been shown not to interfere with reproduction.

### Genetic Toxicology

Similar cellulose derivatives were negative in both in vitro and animal genetic toxicity studies.

## 12. Ecological Information

### ENVIRONMENTAL FATE

#### Movement & Partitioning

Based largely or completely on component information. Bioconcentration potential is low (BCF less than 100 or log Pow less than 3). For the major component(s): Expected to be relatively immobile in soil (Koc > 5000). For the minor component(s) Potential for mobility in soil is very high (Koc between 0 and 50).

#### Persistence and Degradability

For the major component(s): No appreciable biodegradation is expected. For the minor component(s) Material is readily biodegradable. Passes OECD test(s) for ready biodegradability.

#### ECOTOXICITY

For the major component(s): Not expected to be acutely toxic to aquatic organisms. For the minor component(s): Material is not classified as dangerous to aquatic organisms (LC50/EC50/IC50/LL50/EL50 greater than 100 mg/L in most sensitive species).

### 13. Disposal Considerations

Any disposal practice must be in compliance with all local and national laws and regulations. Do not dump into any sewers, on the ground, or into any body of water.

### 14. Transport Information

**ROAD & RAIL**

NOT REGULATED

**OCEAN**

NOT REGULATED

**AIR**

NOT REGULATED

Do not ship by air. See Section 7.

**INLAND WATERWAYS**

NOT REGULATED

### 15. Regulatory Information

**European Inventory of Existing Commercial Chemical Substances (EINECS)**

This product is a polymer according to the definition in Directive 92/32/EEC (7<sup>th</sup> Amendment to Directive 67/548/EEC) and all of its starting materials and intentional additives are listed in the European Inventory of Existing Commercial Chemical Substances (EINECS) or in compliance with European (EU) chemical inventory requirements.

**EC Classification and User Label Information**

This product is not classified as dangerous according to EC criteria.

Safety data sheet available for professional users on request.

### 16. Other Information

**Risk-phrases in the Composition section**

R11	Highly flammable.
R36	Irritating to eyes.
R67	Vapours may cause drowsiness and dizziness.

**Revision**

Identification Number: 78232 / 3005 / Issue Date 2009/01/17 / Version: 3.0

Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

*Dow Chemical Company Ltd urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no*

*warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.*