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.

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

**1.1 Product identifiers**
**Product Name**
CELLOSIZE ™ HYDROXYETHYL CELLULOSE WP-300 Europe

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

**Identified uses**
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.

**1.3 Details of the supplier of the safety data sheet**

**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

**1.4 EMERGENCY TELEPHONE NUMBER**

**24-Hour Emergency Contact:** 0031 115 694 982
**Local Emergency Contact:** 00 31 115 69 4982

## Section 2. Hazards Identification

### 2.1 Classification of the substance or mixture

**Classification according to EU Directives 67/548/EEC or 1999/45/EC**
This product is not classified as dangerous according to EC criteria.

### 2.2 Label elements

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

Safety data sheet available for professional users on request.

### 2.3 Other Hazards
No information available.

## Section 3. Composition/information on ingredients

### 3.2 Mixture
This product is a mixture.

| CAS-No. / EC-No. / Index | REACH No. | Amount | Component | Classification: REGULATION (EC) No 1272/2008 |
|---|---|---|---|---|
| **CAS-No.** 9004-62-0 **EC-No.** Polymer | — | >= 86.0 % | Hydroxyethyl cellulose## | Not classified |
| **CAS-No.** 127-09-3 **EC-No.** 204-823-8 | — | <= 7.5 % | Sodium acetate## | Not classified |
| **CAS-No.** 7732-18-5 **EC-No.** 231-791-2 | — | <= 5.0 % | Water## | Not classified |
| **CAS-No.** 67-63-0 **EC-No.** 200-661-7 **Index** 603-117-00-0 | — | <= 3.0 % | Propan-2-ol; isopropyl alcohol; isopropanol | Flam. Liq., 2, H225 Eye Irrit., 2, H319 STOT SE, 3, H336 |
| **CAS-No.** 9004-34-6 **EC-No.** 232-674-9 | — | <= 1.5 % | Cellulose# | Not classified |

| CAS-No. / EC-No. / Index | Amount | Component | Classification: 67/548/EEC |
|---|---|---|---|
| **CAS-No.** 9004-62-0 **EC-No.** Polymer | >= 86.0 % | Hydroxyethyl cellulose## | Not classified. |
| **CAS-No.** 127-09-3 **EC-No.** 204-823-8 | <= 7.5 % | Sodium acetate## | Not classified. |
| **CAS-No.** | <= 5.0 % | Water## | Not classified. |

| | | | |
|---|---|---|---|
| 7732-18-5<br>**EC-No.**<br>231-791-2 | | | |
| **CAS-No.**<br>67-63-0<br>**EC-No.**<br>200-661-7<br>**Index**<br>603-117-00-0 | <= 3.0 % | Propan-2-ol; isopropyl alcohol; isopropanol | F: R11; Xi: R36; R67 |
| **CAS-No.**<br>9004-34-6<br>**EC-No.**<br>232-674-9 | <= 1.5 % | Cellulose# | Not classified. |

# Substance(s) with an Occupational Exposure Limit.
## Voluntarily disclosed component(s).
For the full text of the H-Statements mentioned in this Section, see Section 16.
See Section 16 for full text of R-phrases.

## Section 4. First-aid measures

### 4.1 Description of first aid measures
**General advice:** 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.
**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.
**Skin Contact:** Wash skin with plenty of water.
**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.
**Ingestion:** No emergency medical treatment necessary.

### 4.2 Most important symptoms and effects, both acute and delayed
Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), no additional symptoms and effects are anticipated.

### 4.3 Indication of immediate medical attention and special treatment needed
Maintain adequate ventilation and oxygenation of the patient. Hemodialysis may be of benefit if substantial amounts have been ingested and the patient is showing signs of intoxication. 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.

## Section 5. Fire Fighting Measures

### 5.1 Extinguishing Media
Water. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers.

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

**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.
**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.

### 5.3 Advice for firefighters

**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.

## Section 6. Accidental Release Measures

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

**6.2 Environmental precautions:** Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.
**6.3 Methods and materials for containment and cleaning up:** 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.

## Section 7. Handling and Storage

### 7.1 Precautions for safe handling

### 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. Powdered material may form explosive dust-air mixture. 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.

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

### Storage

Store in a dry place. Protect from atmospheric moisture. Store in a well-ventilated place.
**Shelf life: Use within** 36 Months

### 7.3 Specific end uses

See the technical data sheet on this product for further information.

## Section 8. Exposure Controls / Personal Protection

**8.1 Control parameters**

**Exposure Limits**

| Component | List | Type | Value |
|---|---|---|---|
| **Propan-2-ol; isopropyl alcohol; isopropanol** | UK WEL | TWA | 999 mg/m3 400 ppm |
| | UK WEL | STEL | 1,250 mg/m3 500 ppm |
| | ACGIH | TWA | 200 ppm BEI |
| | ACGIH | STEL | 400 ppm BEI |
| | Ireland OELV | TWA | 200 ppm SKIN |
| | Ireland OELV | STEL | 400 ppm SKIN |
| **Cellulose** | Ireland OELV | TWA Respirable dust. | 4 mg/m3 |
| | Ireland OELV | TWA Total inhalable dust. | 10 mg/m3 |
| | Ireland OELV | STEL Total inhalable dust. | 20 mg/m3 |
| | ACGIH | TWA | 10 mg/m3 |
| | UK WEL | TWA Inhalable dust. | 10 mg/m3 |
| | UK WEL | TWA Respirable dust. | 4 mg/m3 |
| | UK WEL | STEL Inhalable dust. | 20 mg/m3 |

A BEI notation following the exposure guideline refers to a guidance value for assessing biological monitoring results as an indicator of the uptake of a substance from all routes of exposures.
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.

**8.2 Exposure controls**

**Personal Protection**

**Eye/Face Protection:** Use safety glasses (with side shields). Safety glasses (with side shields) 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.

## Section 9. Physical and Chemical Properties

**9.1 Information on basic physical and chemical properties**

| | |
|---|---|
| **Appearance** | |
| **Physical State** | Powder |
| **Color** | White |
| **Odor** | Mild |
| **Odor Threshold** | No test data available |
| **pH** | Not applicable |
| **Melting Point** | No test data available |
| **Freezing Point** | Not applicable |
| **Boiling Point (760 mmHg)** | Not applicable. |
| **Flash Point - Closed Cup** | No test data available |
| **Evaporation Rate (Butyl Acetate = 1)** | not applicable |
| **Flammability (solid, gas)** | No |
| **Flammable Limits In Air** | **Lower**: No test data available<br>**Upper**: No test data available |
| **Vapor Pressure** | Not applicable |
| **Vapor Density (air = 1)** | Not applicable |
| **Specific Gravity (H2O = 1)** | 1.30 - 1.40 *Literature* |
| **Solubility in water (by weight)** | completely miscible with water |
| **Partition coefficient, n-octanol/water (log Pow)** | No data available for this product. |
| **Autoignition Temperature** | > 400 °C *Literature* |
| **Decomposition Temperature** | No test data available |
| **Kinematic Viscosity** | No test data available |
| **Explosive properties** | no data available |
| **Oxidizing properties** | no data available |

**9.2 Other information**

| | |
|---|---|
| **Molecular Weight** | No test data available |

## Section 10. Stability and Reactivity

### 10.1 Reactivity

No dangerous reaction known under conditions of normal use.

### 10.2 Chemical stability

Thermally stable at typical use temperatures. Hygroscopic.

### 10.3 Possibility of hazardous reactions

Polymerization will not occur.

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

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

### 10.6 Hazardous decomposition products
Decomposition products depend upon temperature, air supply and the presence of other materials.

## Section 11. Toxicological Information

### 11.1 Information on toxicological effects
### Acute Toxicity
**Ingestion**
Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts. 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
**Aspiration hazard**
Based on physical properties, not likely to be an aspiration hazard.
**Dermal**
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
As product: The LC50 has not been determined.
### Eye damage/eye irritation
May cause slight eye irritation. May cause pain disproportionate to the level of irritation to eye tissues.
### Skin corrosion/irritation
Prolonged exposure not likely to cause significant skin irritation.
### Sensitization
**Skin**
No relevant data found.
**Respiratory**
No relevant data found.
### Repeated Dose Toxicity
For the minor component(s): Isopropyl alcohol. In animals, effects have been reported on the following organs: Liver. Kidney. Kidney effects have been observed in male rats. These effects are believed to be species specific and unlikely to occur in humans. Observations in animals include: Lethargy.
### Chronic Toxicity and Carcinogenicity
Similar cellulosics 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 cellulosic has been shown not to interfere with reproduction.
### Genetic Toxicology
Similar cellulosics were negative in both in vitro and animal genetic toxicity studies.
**Component Toxicology -** Hydroxyethyl cellulose

| | |
|---|---|
| **Skin Absorption** | The dermal LD50 has not been determined. , |

| | |
|---|---|
| **Skin Absorption** | For similar material(s): LD50, rabbit > 2,000 mg/kg |

**Component Toxicology -** Sodium acetate

| | |
|---|---|
| **Skin Absorption** | LD50, rabbit > 10,000 mg/kg |

**Component Toxicology -** Isopropanol

| | |
|---|---|
| **Skin Absorption** | LD50, rabbit > 12,800 mg/kg |

**Component Toxicology -** Sodium acetate

| | |
|---|---|
| **Inhalation** | LC50, 1 h, Aerosol, rat > 30 mg/l |

**Component Toxicology -** Isopropanol

| | |
|---|---|
| **Inhalation** | LC50, 6 h, Vapor, rat, male and female > 10,000 ppm |

## Section 12. Ecological Information

### 12.1 Toxicity

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).

### 12.2 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.

### 12.3 Bioaccumulative potential

**Bioaccumulation:** Based on information for component(s): Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

### 12.4 Mobility in soil

**Mobility in soil:** 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).

### 12.5 Results of PBT and vPvB assessment

This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).

### 12.6 Other adverse effects

This substance is not in Annex I of Regulation (EC) No 1005/2009 on substances that deplete the ozone layer.

## Section 13. Disposal Considerations

**13.1 Waste treatment methods**

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.

## Section 14. Transport Information

**ADR/RID**

**14.1 UN number**

Not applicable

**14.2 UN proper shipping name**

Proper Shipping Name: NOT REGULATED

**14.3 Transport hazard class(es)**

Not applicable

**14.4 Packing Group**

Not applicable

**14.5 Environmental hazards**

Not considered environmentally hazardous based on available data

**14.6 Special precautions for user**

Special Provisions: no data available

Hazard identification No:no data available

**ADNR / ADN**

**14.1 UN number**

Not applicable
**14.2 UN proper shipping name**
Proper Shipping Name: NOT REGULATED
**14.3 Transport hazard class(es)**
Not applicable
**14.4 Packing Group**
Not applicable
**14.5 Environmental hazards**
Not considered environmentally hazardous based on available data
**14.6 Special precautions for user**
no data available

### IMDG
**14.1 UN number**
Not applicable
**14.2 UN proper shipping name**
Proper Shipping Name: NOT REGULATED
**14.3 Transport hazard class(es)**
Not applicable
**14.4 Packing Group**
Not applicable
**14.5 Environmental hazards**
Not considered environmentally hazardous based on available data
**14.6 Special precautions for user**
EMS Number: Not applicable
**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**
Not applicable

### ICAO/IATA
**14.1 UN number**
Not applicable
**14.2 UN proper shipping name**
Proper Shipping Name: NOT REGULATED
**14.3 Transport hazard class(es)**
Not applicable
**14.4 Packing Group**
Not applicable
**14.5 Environmental hazards**
Not considered environmentally hazardous based on available data
**14.6 Special precautions for user**
NOT REGULATED
Do not ship by air. See Section 7.

## Section 15. Regulatory Information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
**European Inventory of Existing Commercial Chemical Substances (EINECS)**
This product is a polymer according to the definition in Directive 92/32/EEC (7$^{th}$ 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.

### 15.2 Chemical Safety Assessment
Not applicable.

## Section 16. Other Information

### Hazard statement in the composition section

| | |
|---|---|
| H225 | Highly flammable liquid and vapour. |
| H319 | Causes serious eye irritation. |
| H336 | May cause drowsiness or dizziness. |

### Risk-phrases in the Composition section

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

### Revision

Identification Number: 78199 / 3005 / Issue Date 2013/12/13 / Version: 4.0
Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

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