SAFETY DATA SHEET

HE® 100 Polymer

Version 1.7  Revision Date 2016-06-01

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

Product information

Product Name : HE® 100 Polymer
Material : 1016934

EC-No. Registration number

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>EC-No. Index No.</th>
<th>Legal Entity Registration number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acrylamide</td>
<td>79-06-1</td>
<td>201-173-7 616-003-00-0</td>
<td>Chevron Phillips Chemicals International NV</td>
</tr>
<tr>
<td>2-Acrylamido-2-Methylpropane Sulfonic Acid, Sodium Salt</td>
<td>5165-97-9</td>
<td>225-948-4</td>
<td>Chevron Phillips Chemicals International NV</td>
</tr>
</tbody>
</table>

Company : Chevron Phillips Chemical Company LP
Drilling Specialties Company LLC
10001 Six Pines Drive
The Woodlands, TX 77380

Local : Chevron Phillips Chemicals International N.V.
Airport Plaza (Stockholm Building)
Leonardo Da Vincilaan 19
1831 Diegem
Belgium

SDS Requests: (800) 852-5530
Technical Information: (832) 813-4862
Responsible Party: Product Safety Group
Email:sds@cpchem.com

Emergency telephone:

Health: 866.442.9628 (North America)
# HE® 100 Polymer

## SAFETY DATA SHEET

**Version 1.7**

<table>
<thead>
<tr>
<th>Responsibility Department</th>
<th>Product Safety and Toxicology Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-mail address</td>
<td><a href="mailto:SDS@CPChem.com">SDS@CPChem.com</a></td>
</tr>
<tr>
<td>Website</td>
<td><a href="http://www.CPChem.com">www.CPChem.com</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.832.813.4984 (International)</td>
</tr>
<tr>
<td><strong>Transport:</strong></td>
</tr>
<tr>
<td>CHEMTREC 800.424.9300 or 703.527.3887(int'l)</td>
</tr>
<tr>
<td>Asia: +800 CHEMCALL (+800 2436 2255) China:+86-21-22157316</td>
</tr>
<tr>
<td>EUROPE: BIG +32.14.584545 (phone) or +32.14583516 (telefax)</td>
</tr>
<tr>
<td>South America SOS-Cotec Inside Brazil: 0800.111.767 Outside Brazil: +55.19.3467.1600</td>
</tr>
</tbody>
</table>

## SECTION 2: Hazards identification

### Classification of the substance or mixture

**REGULATION (EC) No 1272/2008**

Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.

### Label elements

**Labeling (REGULATION (EC) No 1272/2008)**

Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.

## SECTION 3: Composition/information on ingredients

### Synonyms

None Established

### Molecular formula

Polymer

Contains no hazardous ingredients according to GHS.

### Remarks

Contains no hazardous ingredients according to GHS.

## SECTION 4: First aid measures

### General advice

No hazards which require special first aid measures.

### If inhaled

If unconscious place in recovery position and seek medical advice. If symptoms persist, call a physician.

### In case of eye contact

Remove contact lenses. Protect unharmed eye. If eye irritation persists, consult a specialist.

### If swallowed

Keep respiratory tract clear. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.

## SECTION 5: Firefighting measures

### Flash point

Not applicable
Autoignition temperature : No data available

Specific hazards during fire fighting : Risks of ignition followed by flame propagation or secondary explosions can be caused by the accumulation of dust, e.g. on floors and ledges.

Special protective equipment for fire-fighters : Wear self-contained breathing apparatus for firefighting if necessary.

Further information : Standard procedure for chemical fires. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Fire and explosion protection : Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Provide appropriate exhaust ventilation at places where dust is formed.

Hazardous decomposition products : Carbon Dioxide. Carbon oxides.

SECTION 6: Accidental release measures

Personal precautions : Avoid dust formation.

Environmental precautions : No special environmental precautions required.

Methods for cleaning up : Pick up and arrange disposal without creating dust. Clean up promptly by sweeping or vacuum. Keep in suitable, closed containers for disposal.

Additional advice : Contaminated surfaces will be extremely slippery. Avoid spillage on floor as the product can become very slippery when wet. Sweep up to prevent slipping hazard.

SECTION 7: Handling and storage

Handling

Advice on safe handling : For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary, but may not by themselves be sufficient.

Advice on protection against fire and explosion : Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. Provide appropriate exhaust ventilation at places where dust is formed.

Storage

Requirements for storage areas and containers : Electrical installations / working materials must comply with the technological safety standards.
Advice on common storage : No materials to be especially mentioned.

SECTION 8: Exposure controls/personal protection

Engineering measures
Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the workplace when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

Personal protective equipment

Respiratory protection : Wear a supplied-air NIOSH approved respirator unless ventilation or other engineering controls are adequate to maintain minimal oxygen content of 19.5% by volume under normal atmospheric pressure. Wear a NIOSH approved respirator that provides protection when working with this material if exposure to harmful levels of airborne material may occur, such as: Air-Purifying Respirator for Dusts and Mists / P100. Use a positive pressure, air-supplying respirator if there is potential for uncontrolled release, exposure levels are not known, or other circumstances where air-purifying respirators may not provide adequate protection.

Hand protection : The suitability for a specific workplace should be discussed with the producers of the protective gloves. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Eye protection : Eye wash bottle with pure water. Safety glasses.

Skin and body protection : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific workplace. Wear as appropriate: Protective suit. Safety shoes.

Hygiene measures : General industrial hygiene practice.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance
Physical state : Solid
Color : White
Odor : No odor
Odor Threshold : Not applicable
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Safety data

Flash point : Not applicable

Lower explosion limit : Not applicable

Upper explosion limit : Not applicable

Oxidizing properties : No

Autoignition temperature : No data available

Thermal decomposition : No data available

Molecular formula : Polymer

Molecular weight : No data available

pH : Not applicable

Pour point : Not applicable

Melting point/range : Not applicable

Boiling point/boiling range : Not applicable

Vapor pressure : Not applicable

Relative density : 1.39

at 16 °C (61 °F)

Density : 58 LB/FT³

Water solubility : Soluble

Partition coefficient: n-octanol/water : No data available

Solubility in other solvents : No data available

Viscosity, kinematic : Not applicable

Relative vapor density : Not applicable

Evaporation rate : Not applicable

Dust deflagration index Kst : > 0.0 m.b./s

SECTION 10: Stability and reactivity
### Chemical stability
This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

### Possibility of hazardous reactions

<table>
<thead>
<tr>
<th>Conditions to avoid</th>
<th>Generation of Dusts.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Materials to avoid</td>
<td>May react with oxygen and strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.</td>
</tr>
<tr>
<td>Thermal decomposition</td>
<td>No data available</td>
</tr>
<tr>
<td>Hazardous decomposition products</td>
<td>Carbon Dioxide Carbon oxides</td>
</tr>
</tbody>
</table>

### Other data
No decomposition if stored and applied as directed.

### SECTION 11: Toxicological information

<table>
<thead>
<tr>
<th>HE® 100 Polymer Acute oral toxicity</th>
<th>LD50: &gt; 5,000 mg/kg Species: Rat</th>
</tr>
</thead>
<tbody>
<tr>
<td>HE® 100 Polymer Acute inhalation toxicity</td>
<td>No data available</td>
</tr>
<tr>
<td>HE® 100 Polymer Acute dermal toxicity</td>
<td>No data available</td>
</tr>
<tr>
<td>HE® 100 Polymer Skin irritation</td>
<td>No skin irritation</td>
</tr>
<tr>
<td>HE® 100 Polymer Eye irritation</td>
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<tr>
<td>HE® 100 Polymer Aspiration toxicity</td>
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<tr>
<td>HE® 100 Polymer Further information</td>
<td>No data available.</td>
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</table>

### SECTION 12: Ecological information

Elimination information (persistence and degradability)

Biodegradability: This material is not expected to be readily biodegradable.
Ecotoxicology Assessment

Additional ecological information: This material is not expected to be harmful to aquatic organisms.

SECTION 13: Disposal considerations

The information in this SDS pertains only to the product as shipped. Use material for its intended purpose or recycle if possible. This material, if it must be discarded, may meet the criteria of a hazardous waste as defined by US EPA under RCRA (40 CFR 261) or other State and local regulations. Measurement of certain physical properties and analysis for regulated components may be necessary to make a correct determination. If this material is classified as a hazardous waste, federal law requires disposal at a licensed hazardous waste disposal facility.

Contaminated packaging: Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14: Transport information

The shipping descriptions shown here are for bulk shipments only, and may not apply to shipments in non-bulk packages (see regulatory definition).

Consult the appropriate domestic or international mode-specific and quantity-specific Dangerous Goods Regulations for additional shipping description requirements (e.g., technical name or names, etc.) Therefore, the information shown here, may not always agree with the bill of lading shipping description for the material. Flashpoints for the material may vary slightly between the SDS and the bill of lading.

US DOT (UNITED STATES DEPARTMENT OF TRANSPORTATION)
NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

IMO / IMDG (INTERNATIONAL MARITIME DANGEROUS GOODS)
NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

IATA (INTERNATIONAL AIR TRANSPORT ASSOCIATION)
NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

ADR (AGREEMENT ON DANGEROUS GOODS BY ROAD (EUROPE))
NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

RID (REGULATIONS CONCERNING THE INTERNATIONAL TRANSPORT OF DANGEROUS GOODS (EUROPE))
NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

ADN (EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE

SDS Number:100000068283

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OF DANGEROUS GOODS BY INLAND WATERWAYS)
NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR
TRANSPORTATION BY THIS AGENCY.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

SECTION 15: Regulatory information

National legislation

Major Accident Hazard Legislation
: 96/82/EC Directive 96/82/EC does not apply

Water contaminating class (Germany)
: nwg not water endangering

Notification status

Europe REACH United States of America TSCA Canada DSL
: On the inventory, or in compliance with the inventory : On TSCA Inventory : All components of this product are on the Canadian DSL
Australia AICS New Zealand NZIoC Japan ENCS
: On the inventory, or in compliance with the inventory : Not in compliance with the inventory
Korea KECl Philippines PICCS
: Not in compliance with the inventory
China IECSC
: On the inventory, or in compliance with the inventory

SECTION 16: Other information

NFPA Classification
: Health Hazard: 0
: Fire Hazard: 2
: Reactivity Hazard: 0

Further information

Legacy SDS Number : 168830

Significant changes since the last version are highlighted in the margin. This version replaces all previous versions.
The information in this SDS pertains only to the product as shipped. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

<table>
<thead>
<tr>
<th>Key or legend to abbreviations and acronyms used in the safety data sheet</th>
</tr>
</thead>
<tbody>
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<td>ACGIH</td>
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