# SAFETY DATA SHEET



# HE® 150 Polymer

Version 1.11

Revision Date 2023-10-16

According to Regulation (EC) No. 1907/2006, Regulation (EC) No. 2020/878

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

### 1.1 Product identifier

### Product information

Product Name	:	HE® 150 Polymer
Material	:	1115709, 1075379

### EC-No.Registration number

Chemical name	CAS-No. EC-No. Index No.	Legal Entity Registration number
Acrylamide	79-06-1 201-173-7 616-003-00-0	Chevron Phillips Chemicals International NV 01-2119463260-48-0011
2-Acrylamido-2- Methylpropane Sulfonic Acid, Sodium Salt	5165-97-9 225-948-4	Chevron Phillips Chemicals International NV 01-2119495270-39-0016

### 1.2

1.2	Relevant identified uses of th	e substance or mixture and uses advised against
	Relevant Identified Uses : Supported	Friction Reducer Viscosity modifier
1.3	Details of the supplier of the	safety data sheet
	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 Responsible Party: Product Safety Group
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Email:sds@cpchem.com

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#### **Emergency telephone:**

Health: 866.442.9628 (North America) 1.832.813.4984 (International) Transport: CHEMTREC 800.424.9300 or 703.527.3887(int'l) Asia: CHEMWATCH (+612 9186 1132) China: 0532 8388 9090 Mexico CHEMTREC 01-800-681-9531 (24 hours) South America SOS-Cotec Inside Brazil: 0800.111.767 Outside Brazil: +55.19.3467.1600 Argentina: +(54)-1159839431 EUROPE: BIG +32.14.584545 (phone) or +32.14583516 (telefax) Austria: VIZ +43 1 406 43 43 (24 hours/day, 7 days/week) Belgium: 070 245 245 (24 hours/day, 7 days/week) Bulgaria: +359 2 9154 233 Croatia: +3851 2348 342 (24 hours/day, 7 days/week) Cyprus: 1401 Czech Republic: Toxicological Information Center +420 224 919 293, +420 224 915 402 Denmark: Danish Poison Center (Giftlinjen): +45 8212 1212 Estonia: BIG +32.14.584545 (phone) or +32.14583516 (telefax) Finland: 0800 147 111 09 471 977 (24 hours/day) France: ORFILA number (INRS): + 33 (0) 1 45 42 59 59 (24 hours/day, 7 days/week) Germany: BIG +32.14.584545 (phone) or +32.14583516 (telefax) Greece: (0030) 2107793777 (24 hours/day, 7 days/week) Hungary: +36-80-201-199 (24 hours/day, 7 days/week) Iceland: 543 2222 (24 hours/day, 7 days/week) Ireland: BIG +32.14.584545 (phone) or +32.14583516 (telefax) Italy: BIG +32.14.584545 (phone) or +32.14583516 (telefax) Latvia: State Fire and Rescue Service, phone number: 112; Toxicology and Sepsis Clinic Poisoning and Drug Information Center, Hipokrāta 2, Riga, Latvia, LV-1038, phone number +371 67042473. (24 hours.) Liechtenstein: BIG +32.14.584545 (phone) or +32.14583516 (telefax) Lithuania: +370 (85) 2362052 Luxembourg: (+352) 8002 5500 (24 hours/day, 7 days/week) Malta: +356 2395 2000 The Netherlands: NVIC: +31 (0)88 755 8000 Norway: 22 59 13 00 (24 hours/day, 7 days/week) Poland: BIG +32.14.584545 (phone) or +32.14583516 (telefax) Portugal: CIAV phone number: +351 800 250 250 Romania: +40213183606 Slovakia: +421 2 5477 4166 Slovenia: Phone number: 112 Spain: National Emergency Telephone Number of Spanish Poison Centre: +34 91 562 04 20 (24 hours/day, 7 days/week) Sweden: 112 - ask for Poisons Information

Responsible Department	:	Product Safety and Toxicology Group
E-mail address	:	SDS@CPChem.com
Website	:	www.CPChem.com

### **SECTION 2: Hazards identification**

2.1

### Classification of the substance or mixture REGULATION (EC) No 1272/2008

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	Not a hazardous substance o	or m	ixture.	
2.2	2.2 Labeling (REGULATION (EC) No 1272/2008)			
	Not a hazardous substance c			
2.3	Other hazards Results of PBT and vPvB assessment	:	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.	
	Endocrine disrupting properties	:	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.	
SE	CTION 3: Composition/inform	nati	on on ingredients	
-	- 3.2 ostance or Mixture Molecular formula	:	Copolymer	
	Contains no hazardous ingred	dien	ts according to GHS. :	
	Contains no hazardous ingred Remarks	dien :	ts according to GHS. : Contains no hazardous ingredients according to GHS.	
SE		dien :		
	Remarks	dien :		
<u>SE</u> 4.1	Remarks	:	Contains no hazardous ingredients according to GHS.	
	Remarks	:	Contains no hazardous ingredients according to GHS.	
	Remarks CTION 4: First aid measures Description of first-aid mea	:	Contains no hazardous ingredients according to GHS.	
	Remarks CTION 4: First aid measures Description of first-aid mea General advice	sur :	Contains no hazardous ingredients according to GHS. es No hazards which require special first aid measures. If unconscious, place in recovery position and seek medical	
	Remarks CTION 4: First aid measures Description of first-aid mea General advice If inhaled	: : :	Contains no hazardous ingredients according to GHS. es No hazards which require special first aid measures. If unconscious, place in recovery position and seek medical advice. If symptoms persist, call a physician. Remove contact lenses. Protect unharmed eye. If eye	
4.1	Remarks CTION 4: First aid measures Description of first-aid mea General advice If inhaled In case of eye contact If swallowed	: sur : :	Contains no hazardous ingredients according to GHS. es No hazards which require special first aid measures. If unconscious, place in recovery position and seek medical advice. If symptoms persist, call a physician. Remove contact lenses. Protect unharmed eye. If eye irritation persists, consult a specialist. Keep respiratory tract clear. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious	
4.1	Remarks CTION 4: First aid measures Description of first-aid mea General advice If inhaled In case of eye contact If swallowed Most important symptoms a	: sur : :	es No hazards which require special first aid measures. If unconscious, place in recovery position and seek medical advice. If symptoms persist, call a physician. Remove contact lenses. Protect unharmed eye. If eye irritation persists, consult a specialist. Keep respiratory tract clear. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.	

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4.3	Risks Indication of any immediate	: mo	No data available. edical attention and special treatment needed		
	Treatment	:	No data available.		
SEC	CTION 5: Firefighting measur	es			
	Flash point	:	Not applicable		
	Autoignition temperature	:	Not applicable		
5.1	Extinguishing media				
	Suitable extinguishing media	:	Avoid the use of straight streams that may create a dust cloud and the risk of a dust explosion.		
5.2	<b>Special hazards arising fror</b> Specific hazards during fire fighting		<b>he substance or mixture</b> Risks of ignition followed by flame propagation or secondary explosions can be caused by the accumulation of dust, e.g. on floors and ledges.		
5.3	Advice for firefighters 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.		
SEC	SECTION 6: Accidental release measures				
6.1	Personal precautions, prote	ecti	ive equipment and emergency procedures		
	Personal precautions	:	Avoid dust formation.		
6.2	Environmental precautions				
	Environmental precautions	:	If the product contaminates rivers and lakes or drains inform respective authorities.		
6.3 6.4	Methods and materials for of Methods for cleaning up Reference to other sections	:	ntainment and cleaning up Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.		
	Reference to other sections	:	For personal protection see section 8. For disposal		
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		considerations see section 13.
SEC	CTION 7: Handling and storage	
7.1		
1.1	Precautions for safe handling Handling	
	Advice on safe handling :	For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area.
	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.
7.2	Conditions for safe storage, in	ncluding any incompatibilities
	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.
7.3	Specific End Use Use :	Friction Reducer, Viscosity modifier
SEC	CTION 8: Exposure controls/pe	rsonal protection
8.2	Exposure controls Engineering measures	
	Consider the potential hazards of activities, and other substances personal protective equipment. exposure to harmful levels of the recommended. The user should	airborned concentrations below the exposure guidelines/limits. of this material (see Section 2), applicable exposure limits, job in the work place when designing engineering controls and selecting If engineering controls or work practices are not adequate to prevent is material, the personal protective equipment listed below is d read and understand all instructions and limitations supplied with is usually provided for a limited time or under certain circumstances.
	Personal protective equipmer	nt
	Respiratory protection :	If ventilation or other engineering controls are not adequate to maintain minimal oxygen content of 19.5% by volume under normal atmospheric pressure, a supplied-air NIOSH approved respirator may be appropriate. If exposure to harmful levels of airborne material may occur, a NIOSH approved respirator that provides protection may be appropriate, such as:. Air-Purifying Respirator for Dusts and Mists / P100. A positive pressure, air- supplying respirator may be appropriate if there is potential for uncontrolled release, aerosolization, exposure levels are not known, or other circumstances where air-purifying respirators
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		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 work-place. Wear as appropriate:. Lightweight protective clothing. Safety shoes.
Hygiene measures	:	General industrial hygiene practice.
SECTION 9: Physical and chen	nica	l properties
9.1 Information on basic phys	sical	and chemical properties
Appearance		
Form Physical state Color Odor Odor Threshold		<ul> <li>Powder</li> <li>solid</li> <li>White</li> <li>no odor</li> <li>No data available</li> </ul>
Safety data		
-		

Lower explosion limit : N	No data available
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- Upper explosion limit : No data available
- Oxidizing properties : No
- Autoignition temperature : Not applicable
- Molecular formula: CopolymerMolecular weight: Not applicable

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: Not applicable

- рН
- Pour point

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- Boiling point/boiling range :
- Boiling point/boiling range: Not applicableVapor pressure: Not applicable
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Relative density	: Not applicable
Density	: 1,40 g/cm3
Water solubility	: Completely Soluble
Partition coefficient: n- octanol/water	: No data available
Viscosity, dynamic	: Not applicable
Viscosity, kinematic	: Not applicable
Relative vapor density	: Not applicable
Evaporation rate	: No data available
SECTION 10: Stability and rea	activity
,	<b>,</b>
10.1	
Reactivity	: Stable at normal ambient temperature and pressure.
10.2	
Chemical stability	: This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.
10.3	
Possibility of hazardous	reactions
Hazardous reactions	: Further information: Stable under recommended storage conditions., No hazards to be specially mentioned.
10.4 Conditions to avoid	: Generation of Dusts.
10.5	
Materials to avoid 10.6	: No data available.
Other data	: No decomposition if stored and applied as directed.
SECTION 11: Toxicological in	formation
11.1 Information on toxicolog	ical effects
-	
HE® 150 Polymer Acute oral toxicity	: LD50: > 5.000 mg/kg Species: Rat
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HE® 150 Polymer Skin irritation	: No skin irritation
HE® 150 Polymer Eye irritation	: No eye irritation
HE® 150 Polymer Aspiration toxicity 11.2	: No aspiration toxicity classification.
Information on other hazard	ls
HE® 150 Polymer Further information	: Product dust may be irritating to eyes, skin and respiratory system.
Endocrine disrupting properties	<ul> <li>The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.</li> </ul>
SECTION 12: Ecological informa	tion
12.1 Toxicity	
Ecotoxicity effects	
Toxicity to fish	<ul> <li>EL50: &gt; 741 mg/l Exposure time: 96 h Species: Cyprinodon variegatus (sheepshead minnow) semi-static test Method: PARCOM Protocol Part B</li> </ul>
Toxicity to daphnia and other aquatic invertebrates	: EL50: 741 mg/l Exposure time: 48 h Species: Acartia tonsa (Marine Copepod) Immobilization Method: ISO 14669 and PARCOM method
Toxicity to algae	: ErL50: 3.023 mg/l Exposure time: 72 h Species: Skeletonema costatum (Marine Algae) Growth inhibition Method: ISO 10253
12.2 Persistence and degradabil	ity
Biodegradability	<ul> <li>aerobic</li> <li>Result: Not readily biodegradable.</li> <li>4 - 13 %</li> <li>Method: OECD Test Guideline 306</li> </ul>
12.3	
Bioaccumulative potential Elimination information (persis	stence and degradability)

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Bioaccumulation	This material is not expected to bioaccumulate. The polymer is too large to be bioavailable.		
2.4 Mobility in soil			
Mobility	: No data available		
2.5			
Results of PBT and vPvB as Results of PBT assessment	<ul> <li>sessment</li> <li>This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.</li> </ul>		
2.6 Endocrine disrupting proper	ties		
Endocrine disrupting properties	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.		
2.7 Other adverse effects			
Additional ecological information	: This material is not expected to be harmful to aquatic organisms.		
12.8 Additional Information			
Ecotoxicology Assessment			
Short-term (acute) aquatic hazard	: This material is not expected to be harmful to aquatic organisms.		
Long-term (chronic) aquatic hazard	: This material is not expected to be harmful to aquatic organisms.		
SECTION 13: Disposal considera	tions		
13.1			
Waste treatment methods	ertains only to the product as shipped.		
may meet the criteria of a haze other State and local regulation regulated components may be	urpose or recycle if possible. This material, if it must be discarded, ardous waste as defined by US EPA under RCRA (40 CFR 261) or ns. Measurement of certain physical properties and analysis for necessary to make a correct determination. If this material is te, federal law requires disposal at a licensed hazardous waste		
Contaminated packaging	: Empty containers should be taken to an approved waste handling site for recycling or disposal.		
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#### **SECTION 14: Transport information**

#### 14.1 - 14.7

### 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 OF DANGEROUS GOODS BY INLAND WATERWAYS)

NOT REGULATED AS A HAZARDOUS MATERIAL OR DANGEROUS GOODS FOR TRANSPORTATION BY THIS AGENCY.

Maritime transport in bulk according to IMO instruments

**SECTION 15: Regulatory information** 

15.1

Safety, health and environmental regulations/legislation specific for the substance or mixture National legislation

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Revision Date 2023-10-7 78 of 18 June 2020 amending Regulation (EC) No 1907/2006 Council on the Registration, Evaluation, Authorisation and EU_SEVES3 Update: of applicable
Council on the Registration, Evaluation, Authorisation and
: This product is in full compliance according to REACH
<ul> <li>regulation 1907/2006/EC.</li> <li>On the inventory, or in compliance with the inventory</li> <li>On or in compliance with the active portion of the</li> </ul>
<ul> <li>TSCA inventory</li> <li>All components of this product are on the Canadian DSL</li> </ul>
<ul> <li>On the inventory, or in compliance with the inventory</li> <li>On the inventory, or in compliance with the inventory</li> <li>This substance may be used as a component in a product covered by a group standard but it is not approved for use as a chemical in its own right</li> </ul>
<ul> <li>Not in compliance with the inventory</li> <li>On the inventory, or in compliance with the inventory</li> <li>On the inventory, or in compliance with the inventory</li> <li>On the inventory, or in compliance with the inventory</li> </ul>
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Ith Hazard: 0 Hazard: 2 ctivity Hazard: 0
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rsion are highlighted in the margin. This version replaces all
only to the product as shipped.
ty Data Sheet is correct to the best of our knowledge, ts publication. The information given is designed only as a cessing, storage, transportation, disposal and release and is uality specification. The information relates only to the v not be valid for such material used in combination with any less specified in the text.
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Key or legend to abbreviations and acronyms used in the safety data sheet				
ACGIH	American Conference of Government Industrial Hygienists	LD50	Lethal Dose 50%	
AIIC	Australian Inventory of Industrial Chemicals	LOAEL	Lowest Observed Adverse Effect Level	
DSL	Canada, Domestic Substances List	NFPA	National Fire Protection Agency	
NDSL	Canada, Non-Domestic Substances List	NIOSH	National Institute for Occupational Safety & Health	
CNS	Central Nervous System	NTP	National Toxicology Program	
CAS	Chemical Abstract Service	NZIoC	New Zealand Inventory of Chemicals	
EC50	Effective Concentration	NOAEL	No Observable Adverse Effect Level	
EC50	Effective Concentration 50%	NOEC	No Observed Effect Concentration	
EGEST	EOSCA Generic Exposure Scenario Tool	OSHA	Occupational Safety & Health Administration	
EOSCA	European Oilfield Specialty Chemicals Association	PEL	Permissible Exposure Limit	
EINECS	European Inventory of Existing Chemical Substances	PICCS	Philippines Inventory of Commercial Chemical Substances	
MAK	Germany Maximum Concentration Values	PRNT	Presumed Not Toxic	
GHS	Globally Harmonized System	RCRA	Resource Conservation Recovery Act	
>=	Greater Than or Equal To	STEL	Short-term Exposure Limit	
IC50	Inhibition Concentration 50%	SARA	Superfund Amendments and Reauthorization Act.	
IARC	International Agency for Research on Cancer	TLV	Threshold Limit Value	
IECSC	Inventory of Existing Chemical Substances in China	TWA	Time Weighted Average	
ENCS	Japan, Inventory of Existing and New Chemical Substances	TSCA	Toxic Substance Control Act	
KECI	Korea, Existing Chemical Inventory	UVCB	Unknown or Variable Composition, Complex Reaction Products, and Biological Materials	
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials Information System	
LC50	Lethal Concentration 50%	ATE	Acute toxicity estimate	