SAFETY DATA SHEET

Clarizan™ Biopolymer

Version 1.5 Revision Date 2019-12-09


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

1.1

Product information

Product Name: Clarizan™ Biopolymer
Material: 1097266, 1036302, 1033946, 1033945, 1036242

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 Vinci Lane 19
1831 Diegem
Belgium

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

1.4

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
EUROPE: BIG +32.14.584545 (phone) or +32.14583516 (telefax)
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

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

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Clarizan™ Biopolymer

SECTION 2: Hazards identification

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

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

2.2 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

3.1 - 3.2 Substance or Mixture
Synonyms : None Established
Molecular formula : UVCB

Contains no hazardous ingredients according to GHS.

Remarks : Contains no hazardous ingredients according to GHS.

SECTION 4: First aid measures

4.1 Description of 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 : Not applicable

5.1 Extinguishing media
Clarizan™ Biopolymer

 SECTION 6: Accidental release measures

6.1 Personal precautions, protective 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 Methods and materials for containment and cleaning up

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 : Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air).

6.4 Reference to other sections

Reference to other sections : For personal protection see section 8. For disposal considerations see section 13.

SECTION 7: Handling and storage
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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. 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.

7.2

Conditions for safe storage, including 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.

SECTION 8: Exposure controls/personal protection

8.2

Exposure controls

Engineering measures

Adequate ventilation to control airborne concentrations below the exposure guidelines/limits. 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. 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 work-place. Wear as appropriate: Protective suit. Safety shoes.

Hygiene measures: General industrial hygiene practice.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

**Appearance**

- Physical state: Solid
- Color: Cream to light yellow
- Odor: Mild
- Odor Threshold: No data available

**Safety data**

- Flash point: Not applicable
- Lower explosion limit: Not applicable
- Upper explosion limit: Not applicable
- Oxidizing properties: No
- Autoignition temperature: Not applicable
- Thermal decomposition: No data available

- Molecular formula: UVCB
- Molecular weight: Not applicable
- pH: Not applicable
- Pour point: No data available
- Melting point/range: Not applicable
- Boiling point/boiling range: Not applicable
- Vapor pressure: Not applicable
- Relative density: 1,4 - 1,6
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Density: No data available
Water solubility: Completely Soluble
Partition coefficient: n-octanol/water: No data available
Solubility in other solvents: No data available
Viscosity, kinematic: No data available
Relative vapor density: Not applicable
Evaporation rate: No data available
Dust deflagration index Kst: > 0,0 m.b_/s

SECTION 10: Stability and reactivity

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.
Hazardous reactions: Hazardous polymerization does not occur.

10.4 Conditions to avoid: Generation of Dusts.

10.5 Materials to avoid: No data available.
Thermal decomposition: No data available

10.6 Hazardous decomposition products: Carbon oxides
Other data: No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

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Information on toxicological effects

Clarizan™ Biopolymer
Acute oral toxicity
LD50: > 5,000 mg/kg
Species: Rat

Clarizan™ Biopolymer
Acute inhalation toxicity
LC50: > 20 mg/l
Exposure time: 1 h
Species: Rabbit

Clarizan™ Biopolymer
Acute dermal toxicity
No data available

Clarizan™ Biopolymer
Skin irritation
No skin irritation

Clarizan™ Biopolymer
Eye irritation
No eye irritation

Clarizan™ Biopolymer
Sensitization
Does not cause skin sensitization.

Clarizan™ Biopolymer
Aspiration toxicity
No aspiration toxicity classification.

Clarizan™ Biopolymer
Further information
Product dust may be irritating to eyes, skin and respiratory system.

SECTION 12: Ecological information

12.1
Toxicity

Ecotoxicity effects

Toxicity to fish
This material is not expected to be harmful to aquatic organisms.

Toxicity to daphnia and other aquatic invertebrates
This material is not expected to be harmful to aquatic organisms.

Toxicity to algae
This material is not expected to be harmful to aquatic organisms.

12.2
Persistence and degradability

Biodegradability
This material is expected to be readily biodegradable.
12.3 Bioaccumulative potential
Bioaccumulation : This material is not expected to bioaccumulate.

12.4 Mobility in soil
Mobility : No data available

12.5 Results of PBT and vPvB assessment
Results of PBT 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.

12.6 Other adverse effects
Additional ecological information : This material is not expected to be harmful to aquatic organisms.

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 considerations

13.1 Waste treatment methods
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

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.

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

SECTION 15: Regulatory information

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

Water contaminating class  
(Germany)  
: WGK 1 slightly water endangering  
Classification according to appendix 3

15.2  
Major Accident Hazard  
: 96/82/EC  
Update: 

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### Legislation

Not applicable

### Notification status

- **Europe REACH**: On the inventory, or in compliance with the inventory
- **Switzerland CH INV**: On the inventory, or in compliance with the inventory
- **United States of America (USA) TSCA**: On or in compliance with the active portion of the TSCA inventory
- **Canada DSL**: All components of this product are on the Canadian DSL
- **Australia AICS**: On the inventory, or in compliance with the inventory
- **New Zealand NZIoC**: On the inventory, or in compliance with the inventory
- **Japan ENCS**: On the inventory, or in compliance with the inventory
- **Korea KECI**: A substance(s) in this product was not registered, notified to be registered, or exempted from registration by CPChem according to K-REACH regulations. Importation or manufacture of this product is still permitted provided the Korean Importer of Record has themselves notified the substance.
- **Philippines PICCS**: On the inventory, or in compliance with the inventory
- **China IECSC**: On the inventory, or in compliance with the inventory
- **Taiwan TCSI**: 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**: 697800

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.

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