



## Drill-Well™ D294 RM

Version 1.4

Revision Date 2023-10-18

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

#### Product information

Product Name : Drill-Well™ D294 RM  
 Material : 1115432

Use : Rheology Modifier

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

#### 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 (Gifftlinjen): +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)

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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****Classification of the substance or mixture**

This product has been classified in accordance with the hazard communication standard 29 CFR 1910.1200; the SDS and labels contain all the information as required by the standard.

**Classification**

: Eye irritation, Category 2A

**Labeling**

Symbol(s) :



Signal Word :

: Warning

Hazard Statements :

: H319: Causes serious eye irritation.

Precautionary Statements :

**Prevention:**  
 P264 Wash skin thoroughly after handling.  
 P280 Wear eye protection/ face protection.  
**Response:**  
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P337 + P313 If eye irritation persists: Get medical advice/ attention.

**Carcinogenicity:**

**IARC**

No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**NTP**

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen

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by NTP.

**SECTION 3: Composition/information on ingredients**

Synonyms : Rheology Modifier

Component	CAS-No.	Weight %
Di(Ethylene Glycol) Butyl Ether	112-34-5	40 - 60

**SECTION 4: First aid measures**

General advice : Move out of dangerous area. Show this material safety data sheet to the doctor in attendance.

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

In case of eye contact : Immediately flush eye(s) with plenty of water. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. 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 : 124°C (255°F)

Unsuitable extinguishing media : High volume water jet.

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 : Normal measures for preventive fire protection.

**SECTION 6: Accidental release measures**

Personal precautions : Use personal protective equipment.

Environmental precautions : Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid

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binder, universal binder, sawdust). Keep in suitable, closed containers for disposal.

**SECTION 7: Handling and storage****Handling**

Advice on safe handling : Do not breathe vapors/dust. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Dispose of rinse water in accordance with local and national regulations.

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

**Storage**

Requirements for storage areas and containers : Keep container tightly closed in a dry and well-ventilated place. Electrical installations / working materials must comply with the technological safety standards.

Use : Rheology Modifier

**SECTION 8: Exposure controls/personal protection****Ingredients with workplace control parameters****US**

Components	Basis	Value	Control parameters	Note
Di(Ethylene Glycol) Butyl Ether	ACGIH	TWA	10 ppm,	Inhalable fraction and vapor

**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 work place 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 : 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 Organic Vapors, Dusts and Mists. 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 may not provide adequate protection.

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- 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. Tightly fitting safety goggles.
- 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 : When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

**SECTION 9: Physical and chemical properties****Information on basic physical and chemical properties****Appearance**

- Form : viscous  
 Physical state : liquid  
 Color : Black  
 Odor : Mild

**Safety data**

- Flash point : 124°C (255°F)  
 Lower explosion limit : Not applicable  
 Upper explosion limit : Not applicable  
 Oxidizing properties : No  
 Molecular weight : Not applicable  
 pH : 6 - 8  
 Pour point : -7°C (20°F)  
 Melting point/range : -7°C (20°F)  
 Freezing point : -68°C (-90°F)  
 Boiling point/boiling range : 230°C (446°F)  
 Vapor pressure : Not applicable  
 Relative density : 0.978

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Solubility in other solvents : partly soluble

**SECTION 10: Stability and reactivity****Reactivity** : Stable at normal ambient temperature and pressure.**Chemical stability** : This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.**Possibility of hazardous reactions****Hazardous reactions** : Further information: No decomposition if stored and applied as directed.**Conditions to avoid** : No data available.**Other data** : No decomposition if stored and applied as directed.**SECTION 11: Toxicological information****Acute oral toxicity**Di(Ethylene Glycol) Butyl Ether : LD50: 5,530 mg/kg  
Species: Mouse  
Sex: male**Drill-Well™ D294 RM****Acute dermal toxicity** : Acute toxicity estimate: 4,607 mg/kg  
Method: Calculation methodAcute toxicity estimate: 4,607 mg/kg  
Method: Calculation method**Skin irritation**

Di(Ethylene Glycol) Butyl Ether : slight irritation.

**Eye irritation**

Di(Ethylene Glycol) Butyl Ether : Eye irritation

**Sensitization**

Di(Ethylene Glycol) Butyl Ether : Did not cause sensitization on laboratory animals.

**Repeated dose toxicity**

Di(Ethylene Glycol) Butyl : Species: Rat, Male and female

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Ether

Sex: Male and female  
 Application Route: Oral  
 NOEL: 250 mg/kg  
 Lowest observable effect level: 1,000 mg/kg  
 Method: OECD Test Guideline 408  
 Target Organs: Blood, Liver, Kidney

Species: Rat, Male and female  
 Sex: Male and female  
 Application Route: inhalation (vapor)  
 NOEL: 94 mg/m<sup>3</sup>  
 Method: OECD Guideline 413  
 Target Organs: Lungs

Species: Rat, Male and female  
 Sex: Male and female  
 Application Route: Dermal  
 NOEL: 2,000 mg/kg  
 Target Organs: Skin

**Genotoxicity in vitro**

Di(Ethylene Glycol) Butyl Ether

: Test Type: Ames test  
 Concentration: 0.2, 1.5, 10, 20  
 Metabolic activation: with and without metabolic activation  
 Method: OECD Test Guideline 471  
 Result: negative

Test Type: Chromosome aberration test in vitro  
 Metabolic activation: with and without metabolic activation  
 Method: OECD Guideline 476  
 Result: negative

**Genotoxicity in vivo**

Di(Ethylene Glycol) Butyl Ether

: Test Type: Mouse micronucleus assay  
 Species: Mouse  
 Route of Application: Oral  
 Result: negative

**Reproductive toxicity**

Di(Ethylene Glycol) Butyl Ether

: Species: Mouse  
 Sex: male and female  
 Application Route: Oral  
 Dose: 0, 720, 1340, 2050mg/kg bw  
 Number of exposures: continuous  
 Test period: 14 weeks  
 Method: OECD Test Guideline 416  
 NOAEL Parent: 720 mg/kg  
 NOAEL F1: 720 mg/kg  
 NOAEL F2: 720 mg/kg  
 Information given is based on data obtained from similar substances.

**Developmental Toxicity**

Di(Ethylene Glycol) Butyl Ether

: Species: Rat

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Ether

Application Route: Oral diet  
 Dose: 25, 115, 633 mg/kg/d  
 Number of exposures: GD 0 -20 d  
 Method: OECD Guideline 414  
 NOAEL Teratogenicity: 633 mg/kg  
 NOAEL Maternal: 633 mg/kg  
 No adverse effects expected

Species: Rabbit  
 Application Route: Dermal  
 Dose: 25, 115, 633 mg/kg/d  
 Exposure time: 4 h/d  
 Number of exposures: GD 8 -19 d  
 Method: OECD Guideline 414  
 NOAEL Teratogenicity: 1,000 mg/kg  
 NOAEL Maternal: 1,000 mg/kg  
 No adverse effects expected

**CMR effects**

Di(Ethylene Glycol) Butyl Ether

: Carcinogenicity: Not available  
 Mutagenicity: Tests on bacterial or mammalian cell cultures did not show mutagenic effects., In vivo tests did not show mutagenic effects  
 Teratogenicity: Animal testing did not show any effects on fetal development.  
 Reproductive toxicity: Animal testing did not show any effects on fertility.

**SECTION 12: Ecological information****Ecotoxicity effects****Toxicity to fish**

Di(Ethylene Glycol) Butyl Ether

: LC50: > 1,000 mg/l  
 Exposure time: 96 h  
 Species: *Scophthalmus maximus* (Flatfish, Flounder)  
 semi-static test Method: OECD Test Guideline 203

**Toxicity to daphnia and other aquatic invertebrates**

Di(Ethylene Glycol) Butyl Ether

: EC50: > 1,000 mg/l  
 Exposure time: 48 h  
 Species: *Acartia tonsa* (Marine Copepod)  
 static test Method: ISO TC147/SC5/WG2

**Toxicity to algae**

Di(Ethylene Glycol) Butyl Ether

: EC50: > 1,000 mg/l  
 Exposure time: 72 h  
 Species: *Skeletonema costatum* (marine diatom)  
 Growth inhibition Method: ISO 10253



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Biodegradability : Taking into consideration the properties of several ingredients, the product is estimated not to be readily biodegradable according to OECD classification.

Elimination information (persistence and degradability)

Bioaccumulation : This material is not expected to bioaccumulate.

Mobility : No data available

Results of PBT assessment

Di(Ethylene Glycol) Butyl Ether : This substance is not considered to be persistent, bioaccumulating and toxic (PBT)., This substance is not considered to be very persistent and very bioaccumulating (vPvB).

Additional ecological information : No data available

No data available

**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**

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.

Product : Do not dispose of waste into sewer. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents. Dispose of as unused product. Do not re-use empty containers.

**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.

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**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****National legislation**

**SARA 311/312 Hazards** : Serious eye damage or eye irritation

CERCLA Reportable Quantity : This material does not contain any components with a CERCLA RQ.

SARA 302 Reportable Quantity : This material does not contain any components with a SARA 302 RQ.

SARA 302 Threshold Planning Quantity : This material does not contain any components with a section 302 EHS TPQ.

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SARA 304 Reportable Quantity : This material does not contain any components with a section 304 EHS RQ.

SARA 313 Components : The following components are subject to reporting levels established by SARA Title III, Section 313:  
: Di(Ethylene Glycol) Butyl Ether - 112-34-5

**Clean Air Act**

Ozone-Depletion Potential : This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 112 (40 CFR 61):  
: Di(Ethylene Glycol) Butyl Ether - 112-34-5

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCOMI Intermediate or Final VOC's (40 CFR 60.489):  
: Di(Ethylene Glycol) Butyl Ether - 112-34-5

**US State Regulations**

Pennsylvania Right To Know : Di(Ethylene Glycol) Butyl Ether - 112-34-5

**Notification status**

Europe REACH : A substance or substances in this product is not registered or notified to be registered. Importation or manufacture of this product is still permitted provided that it does not exceed the REACH minimum threshold quantity of the non-regulated substances.

Switzerland CH INV : Not in compliance with the inventory

United States of America (USA) TSCA : On or in compliance with the active portion of the TSCA inventory

Canada NDSL : This product contains one or several components listed in the Canadian NDSL.

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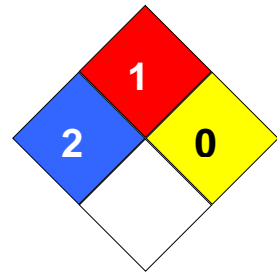
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Australia AIIC	:	Not in compliance with the inventory
New Zealand NZIoC	:	Not in compliance with the inventory
Japan ENCS	:	Not in compliance with the inventory
Philippines PICCS	:	Not in compliance with the inventory
Taiwan TCSI	:	Not in compliance 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 or the exported amount does not exceed the minimum threshold quantity of the non-registered substance(s).
China IECSC	:	Not in compliance with the inventory
Philippines PICCS	:	Not in compliance with the inventory

**SECTION 16: Other information**

**NFPA Classification** : Health Hazard: 2  
Fire Hazard: 1  
Reactivity Hazard: 0

**Further information**

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.

**Key or legend to abbreviations and acronyms used in the safety data sheet**

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	PEL	Permissible Exposure Limit

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	Chemicals Association		
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