

**Diaseal M® Lost Circulation Material**

Version 1.2

Revision Date 2025-05-02

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

Product Name : Diaseal M® Lost Circulation Material  
Material : 1016804, 1017933

Use : Lost Circulation Material

**Company** : Chevron Phillips Chemical Company LP  
Drilling Specialties Company LLC  
9500 Lakeside Blvd.  
The Woodlands, TX 77381

**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)

**Diaseal M® Lost Circulation Material**

Version 1.2

Revision Date 2025-05-02

Italy: POISON CENTER MILAN – Azienda Ospedaliera Niguarda Ca` Grande Tel. +39 02 66101029; POISON CENTER ROME – Policlinico “Agostino Gemelli”, Servizio di tossicologia clinica Tel. +39 06 3054343; POISON CENTER ROME – Ospedale Pediatrico Bambino Gesù Tel. +39 06 68593726; POISON CENTER ROME – Policlinico “Umberto I” Tel. +39 06 4997 8000; POISON CENTER FOGGIA – Azienda Ospedaliera Universitaria Riuniti Tel. +39 0881 732326; POISON CENTER NAPLES – Azienda Ospedaliera “Antonio Cardarelli” Tel. +39 081 7472870; POISON CENTER FLORENCE – Azienda Ospedaliera universitaria Careggi Tel. +39 055 7947819; POISON CENTER PAVIA – IRCCS Fondazione Salvatore Maugeri Tel. +39 0382 24444; POISON CENTER BERGAMO – Azienda Ospedaliera “Papa Giovanni XXIII” Tel. 800 883 300; POISON CENTER VERONA – Azienda Ospedaliera Universitaria integrata Tel. 800 011 858;

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**

**Classification of the substance or mixture**  
**GHS Classification and labelling according to JIS Z 7252-2019 and JIS Z 7253-2019 (GHS 2015)**

**Classification**

: Skin corrosion/irritation, Category 2  
 Serious eye damage/eye irritation, Category 1  
 Carcinogenicity, Category 1A  
 Specific target organ toxicity - single exposure, Category 1, respiratory system

**Labeling**

Symbol(s)



Signal Word

: Danger

Hazard Statements

: H315: Causes skin irritation.  
 H318: Causes serious eye damage.  
 H350: May cause cancer.

**Diaseal M® Lost Circulation Material**

Version 1.2

Revision Date 2025-05-02

H370: Causes damage to organs (respiratory system).

**Precautionary Statements****: Prevention:**

P201: Obtain special instructions before use.

P202: Do not handle until all safety precautions have been read and understood.

P260: Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.

P264: Wash skin thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

P280: Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response:**

P302 + P352: IF ON SKIN: Wash with plenty of water.

P305 + P351 + P338 + P310: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.

P308 + P311: IF exposed or concerned: Call a POISON CENTER/ doctor.

P332 + P313: If skin irritation occurs: Get medical advice/ attention.

P362 + P364: Take off contaminated clothing and wash it before reuse.

**Storage:**

P405: Store locked up.

**Disposal:**

P501: Dispose of contents/ container to an approved waste disposal plant.

**SECTION 3: Composition/information on ingredients****Synonyms**: LCM  
Lost Circulation Material**Molecular formula**

: Mixture

Chemical name	CAS-No.	Concentration	ENCS/ISHL number
Diatomaceous Earth	61790-53-2	60 % - 90%	
Cellulose	9004-34-6	5 % - 15%	(8)-568
Calcium Hydroxide	1305-62-0	7 % - 13%	1-181
Crystalline Silica	14808-60-7	0.1 % - 1%	1-548

**SECTION 4: First aid measures****General advice**

: Move out of dangerous area. Consult a physician. 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.

**Diaseal M® Lost Circulation Material**

Version 1.2

Revision Date 2025-05-02

- In case of skin contact : If skin irritation persists, call a physician. If on skin, rinse well with water. If on clothes, remove clothes.
- In case of eye contact : Small amounts splashed into eyes can cause irreversible tissue damage and blindness. In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Continue rinsing eyes during transport to hospital. 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. Do NOT induce vomiting. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Take victim immediately to hospital.

**SECTION 5: Firefighting measures**

- Flash point : Not applicable
- Autoignition temperature : Not applicable
- Unsuitable extinguishing media : High volume water jet.
- Specific hazards during fire fighting : Do not allow run-off from fire fighting to enter drains or water courses.
- Special protective equipment for fire-fighters : Wear self-contained breathing apparatus for firefighting if necessary.
- Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
- Fire and explosion protection : Avoid dust formation. Provide appropriate exhaust ventilation at places where dust is formed.

**SECTION 6: Accidental release measures**

- Personal precautions : Use personal protective equipment. Avoid dust formation. Avoid breathing dust.
- Environmental precautions : Prevent product from entering drains. 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 : Keep in suitable, closed containers for disposal.

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

**Diaseal M® Lost Circulation Material**

Version 1.2

Revision Date 2025-05-02

Advice on safe handling : Avoid formation of respirable particles. Do not breathe vapors/dust. Avoid exposure - obtain special instructions before use. 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 : Avoid dust formation. Provide appropriate exhaust ventilation at places where dust is formed.

**Storage**

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

Use : Lost Circulation Material

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

JP

Components	Basis	Value	Control parameters	Note
Diatomaceous Earth	JP OEL JSOH	OEL-M	0.5 mg/m3	Respirable dust
	JP OEL JSOH	OEL-M	2 mg/m3	Total dust
Cellulose	JP OEL JSOH	OEL-M	2 mg/m3	Respirable dust
	JP OEL JSOH	OEL-M	8 mg/m3	Total dust
Crystalline Silica	JP OEL JSOH	OEL-C	0.03 mg/m3	1, Respirable particulate matter

1 Group 1: carcinogenic to humans

**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 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 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

**Diaseal M® Lost Circulation Material**

Version 1.2

Revision Date 2025-05-02

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.
- 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. Complete head face and neck protection. Footwear protecting against chemicals. 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**

- Physical state : solid
- Color : Light brown
- Odor : Mild, earthy

**Safety data**

- Flash point : Not applicable
- Lower explosion limit : Not applicable
- Upper explosion limit : Not applicable
- Oxidizing properties : no
- Autoignition temperature : Not applicable
- Molecular formula : Mixture
- Molecular weight : Not applicable
- pH : Not applicable
- Pour point : No data available
- Boiling point/boiling range : Not applicable
- Vapor pressure : Not applicable
- Relative density : 2  
Water = 1.0
- Bulk density : 20.2 LB/FT3
- Water solubility : No data available

**Diaseal M® Lost Circulation Material**

Version 1.2

Revision Date 2025-05-02

Partition coefficient: n-octanol/water : No data available  
Viscosity, kinematic : No data available  
Relative vapor density : Not applicable  
Evaporation rate : No data available

**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** : Generation of Dusts.

**Materials to avoid** : Strong acids.

**Other data** : No decomposition if stored and applied as directed.

**SECTION 11: Toxicological information**

**Acute oral toxicity**

Calcium Hydroxide : LD50: 7,340 mg/kg  
Species: Rat

**Diaseal M® Lost Circulation Material**

**Skin irritation** : Irritating to skin.

**Diaseal M® Lost Circulation Material**

**Eye irritation** : Risk of serious damage to eyes.  
May cause irreversible eye damage.

**Diaseal M® Lost Circulation Material**

**Aspiration toxicity** : No aspiration toxicity classification.

**CMR effects**

Crystalline Silica : Carcinogenicity: Human carcinogen.

**Diaseal M® Lost Circulation Material**

Version 1.2

Revision Date 2025-05-02

**Diaseal M® Lost Circulation Material****Further information** : No data available.**SECTION 12: Ecological information****Ecotoxicity effects****Toxicity to fish**

Calcium Hydroxide : LC50: 160 mg/l  
Exposure time: 96 h  
Species: Gambusia affinis (Fish, fresh water)  
static test

Biodegradability : Not applicable

Elimination information (persistence and degradability)

Bioaccumulation : This material is not expected to bioaccumulate.

Mobility : immobile

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

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**



**Diaseal M® Lost Circulation Material**

Version 1.2

Revision Date 2025-05-02

**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****National legislation****Poisonous and Deleterious Substances Control Law**

: Not applicable

**Industrial Safety and Health Law**

Substances Subject to be : calcium dihydroxide( 317 )

**Diaseal M® Lost Circulation Material**

Version 1.2

Revision Date 2025-05-02

Notified Names Law Article  
57-2 (Ministerial Order Article  
34-2 Appended Table 2)      Crystalline Silica( 165の2 )

Substances Subject to be      : calcium dihydroxide( 317 )  
Notified Names Law Article  
57-2 (Ministerial Order Article      Crystalline Silica( 165の2 )  
34-2 Appended Table 2)

Enforcement Order of the      :  
Industrial Safety and Health  
Law - Attached table 1  
(Dangerous Substances)

Harmful Substances Required      : Not applicable  
Permission for Manufacture  
Hazardous Substances      : calcium dihydroxide ( 317 )  
Subject to Labeling      Crystalline Silica ( 165の2 )  
Requirements Law Article 57  
(Ministerial Order Article 30  
Appended Table 2)  
Hazardous Substances      : calcium dihydroxide ( 317 )  
Subject to Labeling      Crystalline Silica ( 165の2 )  
Requirements Law Article 57  
(Ministerial Order Article 30  
Appended Table 2)  
Ordinance on Prevention of      : Not applicable  
Organic Solvent Poisoning  
Ordinance on Prevention of      : Not applicable  
Lead Poisoning  
Harmful Substances      : Not applicable  
Prohibited from Manufacture  
Ordinance on Prevention of      : Not applicable  
Hazards Due to Specified  
Chemical Substances  
Ordinance on Prevention of      : Not applicable  
Tetraalkyl Lead Poisoning      : Not applicable  
: Not applicable  
: Not applicable

Substances Prevented From      : Not applicable  
Impairment of Health      Listed

**Chemical Substance Control Law**

: Not applicable for Specified Chemical Substance, Monitoring  
Chemical Substance and Priority Assessment Chemical  
Substance.

**Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof**

: Not applicable

**Other regulations**

**Diaseal M® Lost Circulation Material**

Version 1.2

Revision Date 2025-05-02

Fire Service Law : Not applicable to dangerous materials / designated flammables.

High Pressure Gas Safety Act : Not applicable

Explosive Control Law : Not applicable

Vessel Safety Law : Not regulated as a dangerous good

Aviation Law : Not regulated as a dangerous good

**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.

Australia AIIC : On the inventory, or in compliance with the inventory

Japan ENCS : On the inventory, or in compliance with the inventory

New Zealand NZIoC : On the inventory, or in compliance with the inventory

Philippines PICCS : On the inventory, or in compliance with the inventory

Taiwan TCSI : 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 or the exported amount does not exceed the minimum threshold quantity of the non-registered substance(s).

China IECSC : On the inventory, or in compliance with the inventory

**SECTION 16: Other information****Further information**

Legacy SDS Number : 59340

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.

**Diaseal M® Lost Circulation Material**

Version 1.2

Revision Date 2025-05-02

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