

**EXP-S192-10**

Version 1.6

Revision Date 2017-06-08

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

Product Name : EXP-S192-10  
Material : 1109274

**EC-No.Registration number**

| Chemical name                    | CAS-No.<br>EC-No.<br>Index No. | Legal Entity<br>Registration number |
|----------------------------------|--------------------------------|-------------------------------------|
| Diallyldimethylammonium chloride | 7398-69-8<br>230-993-8         | 01-2119463270-47-XXXX               |

**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)  
1.832.813.4984 (International)

**Transport:**  
CHEMTREC 800.424.9300 or 703.527.3887(int'l)

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Asia: CHEMWATCH (+612 9186 1132)  
 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

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

|                                      |                                                                |
|--------------------------------------|----------------------------------------------------------------|
| Acute aquatic toxicity, Category 1   | H400:<br>Very toxic to aquatic life.                           |
| Acute aquatic toxicity, Category 1   | H400:<br>Very toxic to aquatic life.                           |
| Chronic aquatic toxicity, Category 1 | H410:<br>Very toxic to aquatic life with long lasting effects. |
| Chronic aquatic toxicity, Category 1 | H410:<br>Very toxic to aquatic life with long lasting effects. |

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

Hazard pictograms :



Hazard pictograms



Signal Word : Warning  
 Warning

Hazard Statements : H410 Very toxic to aquatic life with long lasting effects.  
 H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements : **Prevention:**  
 P273 Avoid release to the environment.  
 P273 Avoid release to the environment.  
**Response:**  
 P391 Collect spillage.  
 P391 Collect spillage.  
**Disposal:**  
 P501 Dispose of contents/ container to an approved waste disposal plant.  
 P501 Dispose of contents/ container to an approved waste disposal plant.

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

| Chemical name                                   | CAS-No.<br>EC-No.<br>Index No. | Classification<br>(REGULATION (EC) No<br>1272/2008) | Concentration<br>[wt%] |
|-------------------------------------------------|--------------------------------|-----------------------------------------------------|------------------------|
| Diallyldimethylammonium<br>Chloride Homopolymer | 26062-79-3                     | Aquatic Acute 1; H400<br>Aquatic Chronic 1; H410    | 85 - 100               |

For the full text of the H-Statements mentioned in this Section, see Section 16.

**SECTION 4: First aid measures**

|                        |                                                                                                                                                                                   |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| General advice         | : Move out of dangerous area. Show this material safety data sheet to the doctor in attendance. Do not leave the victim unattended.                                               |
| 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                                    | : Not applicable                                                                                                                                                                                                          |
| Autoignition temperature                       | : No data available                                                                                                                                                                                                       |
| 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. 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                            | : 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                                       |

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- accordance with local regulations.
- 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 : No data available.

**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 : 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).

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

- Advice on safe handling : Avoid formation of respirable particles. 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. 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 : Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Electrical installations / working materials must comply with the technological safety standards.

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**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 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   | : | 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. Tightly fitting safety goggles.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Skin and body protection | : | Choose body protection according to the amount and concentration of the dangerous substance at the 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           | : | Granular          |
| Physical state | : | Solid             |
| Color          | : | White             |
| Odor           | : | Odorless          |
| Odor Threshold | : | No data available |

**Safety data**

- |             |   |                |
|-------------|---|----------------|
| Flash point | : | Not applicable |
|-------------|---|----------------|

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|                                        |                     |
|----------------------------------------|---------------------|
| Lower explosion limit                  | : Not applicable    |
| Upper explosion limit                  | : Not applicable    |
| Oxidizing properties                   | : no                |
| Autoignition temperature               | : No data available |
| Thermal decomposition                  | : No data available |
| Molecular weight                       | : Not applicable    |
| pH                                     | : 4 - 6             |
| Freezing point                         | : Not applicable    |
| Pour point                             | Not applicable      |
| Boiling point/boiling range            | : Not applicable    |
| Vapor pressure                         | : Not applicable    |
| Relative density                       | : No data available |
| Density                                | : Not applicable    |
| Water solubility                       | : Soluble           |
| Partition coefficient: n-octanol/water | : No data available |
| Viscosity, kinematic                   | : Not applicable    |
| Relative vapor density                 | : Not applicable    |
| Evaporation rate                       | : No data available |
| 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**

Conditions to avoid : No data available.

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Thermal decomposition : No data available

Hazardous decomposition products : No data available

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

**SECTION 11: Toxicological information**

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**Skin irritation** : No adverse effects expected.

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**Eye irritation** : Product dust may be irritating to eyes, skin and respiratory system.

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**Further information** : No data available.

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

Diallyldimethylammonium Chloride Homopolymer : LC50: > 0,07 mg/l  
Exposure time: 96 h  
Species: Scophthalmus maximus (Flatfish, Flounder)  
static test

**Toxicity to daphnia and other aquatic invertebrates**

Diallyldimethylammonium Chloride Homopolymer : LC50: 1.475,78 mg/l  
Exposure time: 48 h  
Species: Acartia tonsa (Marine Copepod)

**Toxicity to algae**

Diallyldimethylammonium Chloride Homopolymer : EC50: 0,07 mg/l  
Exposure time: 72 h  
Species: Skeletonema costatum (Marine Algae)  
Growth inhibition

**Biodegradability**

Diallyldimethylammonium Chloride Homopolymer : This material is not expected to be readily biodegradable.

**Ecotoxicology Assessment**

Acute aquatic toxicity  
Diallyldimethylammonium Chloride Homopolymer : Very toxic to aquatic life.

Chronic aquatic toxicity  
Diallyldimethylammonium Chloride Homopolymer : Very toxic to aquatic life with long lasting effects.

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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.

Additional ecological information : Very toxic to aquatic life with long lasting effects.

**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 : The product should not be allowed to enter drains, water courses or the soil. 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.

**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)**

UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (DIALYLDIMETHYLAMMONIUM CHLORIDE HOMOPOLYMER), 9, III, MARINE POLLUTANT, (DIALYLDIMETHYLAMMONIUM CHLORIDE HOMOPOLYMER)

**IATA (INTERNATIONAL AIR TRANSPORT ASSOCIATION)**

UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S., (DIALYLDIMETHYLAMMONIUM CHLORIDE HOMOPOLYMER), 9, III

UN Special Provision 375 specifies that shipments of environmentally hazardous substances having a net mass of 5 L for liquids or 5 kg for solids that are properly packed in good quality packaging are not subject to the IATA regulations.

**ADR (AGREEMENT ON DANGEROUS GOODS BY ROAD (EUROPE))**



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UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.,  
(DALLYLDIMETHYLAMMONIUM CHLORIDE HOMOPOLYMER), 9, III, (E)

**RID (REGULATIONS CONCERNING THE INTERNATIONAL TRANSPORT OF DANGEROUS GOODS (EUROPE))**

UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.,  
(DALLYLDIMETHYLAMMONIUM CHLORIDE HOMOPOLYMER), 9, III

**ADN (EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY INLAND WATERWAYS)**

UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.,  
(DALLYLDIMETHYLAMMONIUM CHLORIDE HOMOPOLYMER), 9, III

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 Update:  
Not applicable

**Water contaminating class (Germany)** : WGK 2 water endangering  
Description of the classification procedure for all materials, which are not named in the appendices 1 and 2, on the basis of R-sentence-classifications of the European dangerous materials

**Notification status**

|                                     |   |                                                                                                                                 |
|-------------------------------------|---|---------------------------------------------------------------------------------------------------------------------------------|
| Europe REACH                        | : | This mixture contains only ingredients which have been registered according to Regulation (EU) No. 1907/2006 (REACH).           |
| United States of America (USA) TSCA | : | On 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                   | : | This substance may be used as a single component chemical under an appropriate group standard<br>Notification number: HSR002644 |
| Japan ENCS                          | : | On the inventory, or in compliance with the inventory                                                                           |
| Korea KECI                          | : | On the inventory, or in compliance with the inventory                                                                           |
| Philippines PICCS                   | : | On the inventory, or in compliance with the inventory                                                                           |
| China IECSC                         | : | On the inventory, or in compliance with the inventory                                                                           |

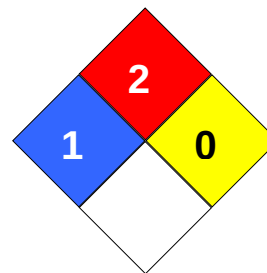
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**SECTION 16: Other information**

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

|        |                                                          |       |                                                                 |
|--------|----------------------------------------------------------|-------|-----------------------------------------------------------------|
| ACGIH  | American Conference of Government Industrial Hygienists  | LD50  | Lethal Dose 50%                                                 |
| AICS   | Australia, Inventory of Chemical Substances              | 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 |

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|      |                          |       |                                                  |
|------|--------------------------|-------|--------------------------------------------------|
|      |                          |       | Biological Materials                             |
| <=   | Less Than or Equal To    | WHMIS | Workplace Hazardous Materials Information System |
| LC50 | Lethal Concentration 50% |       |                                                  |

**Full text of H-Statements referred to under sections 2 and 3.**

H400 Very toxic to aquatic life.  
H410 Very toxic to aquatic life with long lasting effects.