



Safety Data Sheet

ClayBlok K-10

SECTION 1: Identification

1.1 Product identifier

Product name ClayBlok K-10
Product number CBK10

1.3 Recommended use of the chemical and restrictions on use

Shale inhibitor

1.4 Supplier's details

Name Downhole Chemical Solutions
Address 1 Cowboys Way #572
Frisco, Texas 75034

Telephone 469-466-1100

1.5 Emergency phone number(s)

1-888-255-3924 US (ChemTel)
1-813-248-0585 International (ChemTel)

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

GHS classification in accordance with: (US) OSHA (29 CFR 1910.1200)

Not a hazardous substance or mixture.

2.2 GHS label elements, including precautionary statements

Not a hazardous substance or mixture.

2.3 Other hazards which do not result in classification

An Occupational Exposure Value has been established for one or more of the ingredients (See Section 8)

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Component	Concentration
Water (CAS no.: 7732-18-5; EC no.: 231-791-2)	50 - 80 % (weight)*
Potassium chloride (CAS no.: 7447-40-7)	20 - 35 % (weight)*
Bio-polymer	0.1 - 4 % (weight)*

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Trade secret statement (OSHA 1910.1200(i))

*The specific chemical identities and/or actual concentrations or actual concentration ranges for one or more listed components are being withheld as trade secrets under the US regulation 29 CFR 1910.1200(i).

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
If inhaled	Not an expected route of exposure. Acute and delayed symptoms and effects: May cause respiratory irritation. Signs/symptoms may include burning pain in the nose and throat, coughing, wheezing, shortness of breath and pulmonary edema.
In case of skin contact	Wash with water. Call a poison center or doctor if irritation develops or persists. Acute and delayed symptoms and effects: May cause skin irritation. Signs/symptoms may include localized redness, swelling, and itching.
In case of eye contact	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a poison center or doctor if you feel unwell. Acute and delayed symptoms and effects: May cause eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.
If swallowed	Call a poison center or doctor if you feel unwell. If vomiting occurs naturally, have victim lean forward to reduce the risk of aspiration. Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Acute and delayed symptoms and effects: May cause gastrointestinal irritation. Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

4.2 Most important symptoms/effects, acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11

4.3 Indication of immediate medical attention and special treatment needed, if necessary

No data available.

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Specific hazards arising from the chemical

Not Applicable

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5.3 Special protective actions for fire-fighters

Avoid any skin contact. Effects of contact or inhalation may be delayed. Fire may produce irritating, corrosive and/or toxic gases. Runoff from fire control or dilution water may be corrosive and/or toxic and cause pollution. Wear positive pressure self-contained breathing apparatus (SCBA). Wear chemical protective clothing that is specifically recommended by the manufacturer. It may provide little or no thermal protection. Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.

Further information

Use water spray to cool unopened containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear respiratory protection if necessary. Avoid breathing gas, mist, vapors, or spray. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see section 8.

6.2 Environmental precautions

Do not contaminate water

6.3 Methods and materials for containment and cleaning up

Stop leak if you can do it without risk. Collect spill with absorbent material.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Do not swallow. No special handling requirements for normal use of this material.

7.2 Conditions for safe storage, including any incompatibilities

Store as directed by product packaging.

Specific end use(s)

Apart from the uses mentioned in section 1 no other specific uses are stipulated.

SECTION 8: Exposure controls/personal protection

8.2 Appropriate engineering controls

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, gas, etc.) below recommended exposure limits.

Potassium Chloride

Bulgaria OEL - TWA	5.0 mg/l
Latvia OEL - TEA	5 mg/l
Lithuania OEL - TEA	5 mg/l

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Safety glasses with side shields or goggles are recommended if splash hazard.

Skin protection

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Wear protective gloves, such as PVC or other plastic material. Consult manufacturer specifications for further information.

Body protection

Wear protective clothing. Clothing with full length sleeves and pants should be worn. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Thermal hazards

No data available.

Environmental exposure controls

Do not let product enter drains.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance/form (physical state, color, etc.)	liquid
Odor	Mild
Odor threshold	No data available.
pH	7.0-8.0
Melting point/freezing point	20 F
Initial boiling point and boiling range	No data available.
Flash point	> 212F.
Evaporation rate	No data available.
Flammability (solid, gas)	No data available.
Upper/lower flammability limits	No data available.
Upper/lower explosive limits	No data available.
Vapor pressure	No data available.
Vapor density	No data available.
Relative density	9.4 - 9.6
Specific Gravity	1.12 - 1.15
Solubility(ies)	Soluble in Water
Partition coefficient: n-octanol/water	No data available.
Charge	Cationic
Auto-ignition temperature	No data available.
Decomposition temperature	No data available.
Viscosity	No data available.
Explosive properties	No data available.
Oxidizing properties	No data available.

Other safety information

No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under normal storage conditions.

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10.3 Possibility of hazardous reactions

No data available.

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

No data available

10.6 Hazardous decomposition products

No data available.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Likely Routes of Exposure: Eye contact. Skin contact. Ingestion.

Information on the product as supplied:

No data available.

Components:

Potassium chloride

LD50 Oral - Rat - 2600 mg/kg

Symptoms (including delayed and immediate effects):

Inhalation: May cause respiratory irritation. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Ingestion: May cause gastrointestinal irritation. Signs/symptoms may include abdominal pain, stomach upset, nausea, vomiting and diarrhea.

Skin corrosion/irritation

May cause skin irritation. Signs/symptoms may include localized redness, swelling, and itching.

Serious eye damage/irritation

May cause eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Potassium Chloride

Eye Irritation : Rabbit (mild)

Respiratory or skin sensitization

No data available.

Germ cell mutagenicity

No data available.

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

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OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

No data available.

STOT-single exposure

No data available.

STOT-repeated exposure

No data available.

Aspiration hazard

No data available.

SECTION 12: Ecological information

Toxicity

Information on the product as supplied:

No data available on product

Components:

Potassium chloride

LC50 - *Leuciscus idus* (golden orfe) - 96 h - 920 mg/l

EC50 - *Daphnia magna* (water flea) - 825 mg/l - 48 h

Persistence and degradability

Information on the product as supplied:

No data available on product

Components:

No data available

Bioaccumulative potential

Information on the product as supplied:

No data available on product

Mobility in soil

Information on the product as supplied

No data available on product

Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

SECTION 13: Disposal considerations

Disposal of the product

Dispose of waste in accordance with all applicable laws and regulations. Member State specific and Community specific provisions must be considered. Considering the relevant known environmental and human health hazards of the material, review and implement appropriate technical and procedural waste water and waste disposal measures to prevent occupational exposure and environmental release. It is recommended that waste minimization be practiced. The best available technology should be utilized to prevent environmental releases. This may include destructive techniques for waste and wastewater.

Disposal of contaminated packaging

Dispose of as unused product.

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SECTION 14: Transport information

DOT (US)

Not regulated goods

IMDG

Not regulated goods

IATA

Not regulated goods

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

POTASSIUM CHLORIDE

**CERCLA/SARA 313 Emission reporting
Inventory - United States TSCA - Sect. 8(b)
Australia (AICS):**

**Not Listed
Present
Present**

**Standard for the Uniform Scheduling
for Drugs and Poisons:**

Schedule 4

EU EINECS/ELINCS List

231-211-8

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

No SARA Hazards

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

New Jersey Right To Know Components

Potassium chloride
CAS-No. 7447-40-7

Pennsylvania Right To Know Components

Potassium chloride
CAS-No. 7447-40-7

California Prop. 65 Components

Not listed

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HMIS Rating

HMIS RATINGS (Hazardous Materials Identification System)	
HEALTH	1
FLAMMABILITY	0
REACTIVITY	0
PERSONAL PROTECTION	B

SECTION 16: Other information

16.1 Further information/disclaimer

DISCLAIMER: The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of information for their particular purposes. In no event shall Downhole Chemical Solutions be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, whatsoever arising, even if Downhole Chemical Solutions has been advised of the possibility of such damages.