

MATERIAL SAFETY DATA SHEET



MIL-PAC™ PLUS R

Drilling Fluids

1. Product and Company Identification

Material name	MIL-PAC™ PLUS R
Chemical description	Sodium carboxymethylcellulose
Applications	FILTRATION CONTROL AGENT
Supplier	Baker Hughes Drilling Fluids 2001 Rankin Rd. Houston, TX 77073 Emergency telephone number 713-439-8900

2. Composition / Information on Ingredients

The manufacturer lists no ingredients as hazardous according to OSHA 29 CFR 1910.1200.

Composition comments This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

3. Hazards Identification

Emergency overview	Product dust may be irritating to eyes, skin and respiratory system. Prolonged or repeated skin contact may cause skin irritation or allergic skin sensitization reaction. Product may form explosive dust/air mixtures if high concentration of product dust is suspended in air. Static charges created by dust generation in or near flammable vapors may cause flash fire. Surfaces subject to spills may become slippery.
Potential health effects	
Eyes	Dust or powder may irritate eye tissue.
Skin	Prolonged or excessive skin contact with this product may cause mild skin irritation. May aggravate existing allergic and hypersensitive skin conditions.
Inhalation	Dusts of this product may cause irritation of the nose, throat, and respiratory tract.
Ingestion	Ingestion of large amounts may produce gastrointestinal disturbances including irritation, nausea, and diarrhea.

4. First Aid Measures

First aid procedures	
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention if irritation develops or persists.
Skin contact	Remove and isolate contaminated clothing and shoes. Wash off skin with soap and water. Launder contaminated clothing before reuse. Get medical attention if irritation develops or persists.
Inhalation	Remove to fresh air. Call a physician if symptoms develop or persist.
Ingestion	Drink 1 or 2 glasses of water. Do not induce vomiting. If ingestion of a large amount does occur, seek medical attention.
General advice	If you feel unwell, seek medical advice (show the label where possible).

5. Fire Fighting Measures

Flammable properties	Dusts at sufficient concentrations can form explosive mixtures with air.
Hazardous combustion products	Carbon monoxide, carbon dioxide, various hydrocarbon fragments as well as thick smoke.
Extinguishing media	
Suitable extinguishing media	Dry chemical, CO2, water spray or regular foam.
Protection of firefighters	
Protective equipment for firefighters	Firefighters should wear full protective clothing including self contained breathing apparatus.

6. Accidental Release Measures

Personal precautions	Surfaces may become slippery after spillage. Wear appropriate protective equipment and clothing during clean-up. For recommended protective clothing and equipment, see section 8 "Exposure Controls and Personal Protection".
Evacuation procedures	Keep unnecessary personnel away.

Environmental precautions	Do not contaminate surface water. Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid the generation of dusts during clean-up.

7. Handling and Storage

Handling	Do not handle or store near an open flame, heat or other sources of ignition. Handle and open container with care. Avoid dust formation. Dust can form an explosive mixture in air.
Storage	Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat, sparks, and flame.

8. Exposure Controls / Personal Protection

Exposure guidelines	ACGIH TLV 10 mg/m3 (inhalable) 8-hr TWA 3 mg/m3 (respirable) 8-hr TWA
Engineering controls	Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.
Personal protective equipment	
Eye protection	Wear dust goggles.
Hand protection	Impervious gloves.
Skin and body protection	Use of protective coveralls and long sleeves is recommended. Use of impervious boots is recommended.
Respiratory protection	Use the indicated respiratory protection if the occupational exposure limit is exceeded and/or in case of product release (dust) . Wear respirator with dust filter.
General hygiene considerations	Wash hands before breaks and immediately after handling the product. When using do not smoke.

9. Physical and Chemical Properties

Appearance / Color / Form	Granular. White to off-white. Powder.
Odor	None.
Clarity	Not available
Odor threshold	Not available
Physical state	Solid
pH	6.5 - 10.5 10% aq. soln.
Melting point	Not available
Freezing point	Not available
Boiling point	Not available
Flash point	Not applicable
Evaporation rate	Not available
Flammability limits in air, lower, % by volume	Not available
Flammability limits in air, upper, % by volume	Not available
Vapor pressure	Not available
Vapor density	Not available
Specific gravity	1.59
Relative density	Not available
Solubility	Partially soluble in water.
Octanol/H2O coeff	Not available
Auto-ignition temperature	Not available
Decomposition temperature	> 482 °F (> 250 °C)
Bulk density	> 450 kg/m3

10. Chemical Stability & Reactivity Information

Chemical stability	Stable at normal conditions.
Conditions to avoid	Exposure to moisture.
Incompatible materials	None known.
Hazardous decomposition products	None known.
Possibility of hazardous reactions	Will not occur.

11. Toxicological Information

Carcinogenicity Not listed by ACGIH, IARC, NIOSH, NTP OR OSHA.

12. Ecological Information

Ecotoxicity This material is not expected to be harmful to aquatic life.
Persistence / degradability Expected to be slow, but will ultimately degrade in the aquatic environment.
Bioaccumulation / accumulation Not expected to bioaccumulate.
Mobility in environmental media This product will disperse readily in bodies of water or in wet soil.

13. Disposal Considerations

Disposal instructions Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations. This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste.

14. Transport Information

Department of Transportation (DOT) Requirements

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

15. Regulatory Information

US federal regulations This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
CERCLA/SARA Hazardous Substances - Not applicable.

Occupational Safety and Health Administration (OSHA)

29 CFR 1910.1200 hazardous chemical No

CERCLA (Superfund) reportable quantity None

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - No
Delayed Hazard - No
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

Section 302 extremely hazardous substance No

Section 311 hazardous chemical Yes

Food and Drug Administration (FDA) Total food additive
Direct food additive
Indirect food additive
GRAS food additive

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (CCS)	Yes
Europe	European Inventory of New and Existing Chemicals (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Japanese Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Korean Inventory of Chemicals (KICS)	Yes
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

Regulations The product does not need to be labelled in accordance with EC directives or respective national laws.

State regulations This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

16. Other Information

HMIS® ratings	Health: 1 Flammability: 1 Physical hazard: 0 Personal protection: E
NFPA ratings	Health: 1 Flammability: 1 Instability: 0
Disclaimer	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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