

## Material Safety Data Sheet

Marchial Safety Bara Shee		
Protective Equipment	TDG	WHMIS
	Shipping Name: NOT DANGEROUS GOODS TDG Classification: Not Applicable UN Number (PIN): Not Applicable Packing Group: Not Applicable Emergency Response Guide Number:	Not WHMIS Regulated
See SECTION VIII for details	Not registered Emergency Phone: CHEMTREC 1-800- 424-9300 See SECTION XIV for details	See SECTION XV for details
	DOT	NFP <i>A</i>
	Shipping Name: NOT HAZARDOUS MATERIAL HAZMAT Classification: Not Applicable UN Number (PIN): Not Applicable Packing Group: Not Applicable Emergency Phone: CHEMTREC 1-800- 424-9300	1 0

SECTION I: Chemical Product and Company Identification		
Common/Trade Name	DWP-111-1	
Synonyms	Not Available	
Chemical Name	Not Available	
Chemical Formula	Not Available	
Chemical Family	Polysaccharide suspension	
Supplier	Calfrac Well Services Ltd. 411-8 <sup>th</sup> Avenue SW Calgary, Alberta T2P 1E3	
Document Number	MSDS-DWP-111-1 Rev 0	
Date of Preparation	December 31, 2009	
Prepared By	Calfrac Well Services	
Phone number of Preparer	(403) 266 6000	
Material Uses	Viscosity Additive	

SECTION II: Hazards Identification		
Routes of Entry	[XX] SKIN [XX] EYE CONTACT [X] INHALATION [X] INGESTION	
Threshold Limit Value	Not determined	
Skin Contact	No adverse reaction expected	
Eye Contact	Mechanical irritation	
Ingestion	Low oral toxicity. Small amounts of liquid aspirated into the respiratory system during ingestion or from vomiting may cause mild to severe pulmonary injury and possibly death.	
Inhalation	Vapors, mists or fumes may cause irritation to the respiratory tract.	

SECTION III: Ha	zardous Ingredients			
Name	Percent (%)	CAS#	LD <sub>50</sub> (oral rat)	LC <sub>50</sub> (dermal rabbit)

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## NO HAZARDOUS INGREDIENTS

SECTION IV: First Aid Measures		
Skin Contact	Flush skin with soap and water for five minutes after contact. Seek medical attention if irritation develops or persists. Wash contaminated clothing before reuse.	
Eye Contact	Flush eyes immediately with water for at least 15 minutes. Seek medical attention.	
Ingestion	If swallowed, do not induce vomiting. Keep at rest. Seek medical attention.	
Inhalation	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Keep at rest. Seek medical attention.	

SECTION V: Fire Fighting Measures	
Flash Point (Method)	>100°C (TCC)
Flammable Limits	Not Determined
Extinguishing Media	Foam, CO <sub>2</sub> , Dry Chemical, Water Spray
Special Fire Fighting Procedures	Use full protective equipment and self-contained breathing apparatus.
Unusual Fire and Explosion Hazards	Forms slippery compound when mixed with water

SECTION VI: Accidental Release Measures	
Steps to be taken in case the Material is Spilled or Released	(Use appropriate safety equipment). Clean up with suitable absorbent. Store contaminated absorbent in closed container, dispose according to local regulations. Avoid flushing with water as material becomes slippery when wet.

SECTION VII: Handling and Storage	
Precautions to be taken in Handling and Storing	Avoid ingestion. Practice reasonable caution and personal cleanliness. Avoid skin and eye contact. Store in sealed containers in a cool ventilated area.

SECTION VIII: Exposure Control/Personal Protection		
Special Protection Information		
<b>Respiratory Protection</b> Use NIOSH/MSHA approved respiratory product when airborne exposure exceeds TLV.		
Ventilation	General Mechanical	
Protective Gloves	Impervious gloves	
Eye Protection	Goggles	
Other Protective Equipment (Specify)  None required		

SECTION IX: Physical and Chemical Properties		
Appearance	Opaque, dark brown liquid.	
Odor	Very little odour	
Specific Gravity	1.054	
Boiling Point (°C)	280°C	
Melting Point (°C)	Not Determined	
Solubility in Water	Insoluble	
Percent Volatile by Volume	Not Determined	
Evaporation Rate	Not Determined	
Vapor Pressure (mm Hg)	Not Determined	
Vapor Density (Air = 1)	Not Determined	
рН	Not Determined	

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SECTION X: Stability and Reactivity	
Stability	[XX] STABLE [] UNSTABLE
Incompatibility (Conditions to Avoid)	Strong oxidizers, strong reducers.
Conditions of Reactivity	Not Determined
Hazardous Decomposition Products	CO <sub>x</sub> , smoke on combustion
Hazardous Polymerization	[XX] WILL NOT OCCUR [] MAY OCCUR

SECTION XI: Toxicological Information		
Sensitization to Product	No Information Available	
Carcinogenicity	No Information Available	
Irritancy to Product	No Information Available	
Reproductive Toxicity	No Information Available	
Teratogenicity	No Information Available	
Mutagenicity	No Information Available	
Chronic Exposure	No Information Available	
Name of Toxicological	No Information Available	
Synergistic Products		

SECTION XII: Ecological Information	
Ecological Information	Not Available

SECTION XIII: Disposal Considerations		
Waste Disposal Method	Dispose of waste material at an approved (hazardous) waste treatment / disposal facility in accordance with applicable local, provincial and federal regulations. Do not dispose of waste with normal garbage, or into sewer systems.	

SECTION XIV: Transportation Information				
Proper Shipping Name	Not Dangerous Goods/Hazardous			
Class	Not Applicable			
TDG/HAZMAT Label	No			
UN Number (PIN)	Not Applicable			
TDG Placard	No			
Packing Group	Not Applicable			
Emergency Response Guide	Not Registered			
Number				
Emergency Telephone	CHEMTREC 1-800-424-9300			

SECTION XV: Regulatory Information						
WHMIS Classification	Class	NA	Division	NA	Subdivision	NA
This product has been classified in accordance with the hazard criteria of the CPR and the						
MSDS contains all the information required by the CPR						

SECTION XVI: Other		
Other Information	New product 03/19/2010	

The information contained herein is offered only as a guide to the handling of this specific product and has been prepared in good faith by technically knowledgeable personnel. It is not intended to be all-inclusive and the manner and conditions of use and handling may involve other and additional considerations. No warranty of any kind is given or implied. Calfrac Well Services Ltd.

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