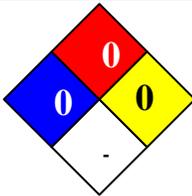


Protective Equipment	TDG	WHMIS
 <p>See SECTION VIII for details</p>	<p>Shipping Name: NOT DANGEROUS GOODS</p> <p>TDG Classification: Not Applicable</p> <p>UN Number (PIN): Not Applicable</p> <p>Packing Group: Not Applicable</p> <p>Emergency Response Guide Number: Not registered</p> <p>Emergency Phone: CHEMTREC 1-800-424-9300</p> <p>See SECTION XIV for details</p>	<p>Not WHMIS Regulated</p> <p>See SECTION XV for details</p>
DOT		NFPA
	<p>Shipping Name: NOT A HAZARDOUS MATERIAL</p> <p>HAZMAT Classification: Not Applicable</p> <p>UN Number (PIN): Not Applicable</p> <p>Packing Group: Not Applicable</p> <p>Emergency Phone: CHEMTREC 1-800-424-9300 or +1-703-527-3387 (International)</p>	

SECTION I: Chemical Product and Company Identification

Common/Trade Name	DWP-913-1
Synonyms	Not Available
Chemical Name	Not Available
Chemical Formula	Not Available
Chemical Family	Quaternized amine
Supplier	Calfrac Well Services Corp 717 – 17 th Street, Ste 1445 Denver, CO 80202
Document Number	MSDS-DWP-913-1 Rev 2
Date of Preparation	January 12, 2011
Prepared By	Calfrac Well Services
Phone number	(303) 685 7954
Material Uses	KCI Substitute

SECTION II: Hazards Identification

Routes of Entry	<input checked="" type="checkbox"/> SKIN <input checked="" type="checkbox"/> EYE CONTACT <input checked="" type="checkbox"/> INHALATION <input checked="" type="checkbox"/> INGESTION
Threshold Limit Value	Not Determined
Skin Contact	Skin contact may cause skin irritation with discomfort or rash.
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	Vapours, mists or fumes may cause slight irritation to the respiratory tract.

SECTION III: Hazardous Ingredients

Name	Percent (%)	CAS#	LD ₅₀ (oral rat)	LC ₅₀ (dermal rabbit)
NO HAZARDOUS INGREDIENTS				

SECTION IV: First Aid Measures

Skin Contact	In case of skin contact, wash with soap and water. If irritation develops or persists, consult a physician. Wash contaminated clothing before reuse.
Eye Contact	In case of eye contact, flush with water for 15 minutes and call a physician.
Ingestion	If conscious and medical aid is not immediately available, dilute stomach contents by giving large quantities of water or milk. Do not induce vomiting. NEVER GIVE ANYTHING TO AN UNCONSCIOUS PERSON. Seek immediate medical attention.
Inhalation	In case of inhalation, remove patient to fresh air. If not breathing, administer artificial respiration. Seek medical attention if breathing is difficult or irritation of the respiratory tract occurs.

SECTION V: Fire Fighting Measures

Flash Point	> 93°C TCC (200 °F)
Flammable Limits	Not Determined
Extinguishing Media	Foam, dry chemical, CO ₂ , Dry Chemical, Water Spray
Special Fire Fighting Procedures	Wear full protective equipment including a SCBA
Unusual Fire and Explosion Hazards	Material becomes very slippery when contacted with water.

SECTION VI: Accidental Release Measures

Steps to be taken in case the Material is Spilled or Released	(Use appropriate safety equipment). Small spills: recover spilled material and return material to plant. If wet, pick up with dry material such as sand or dirt. Avoid flushing with water as material becomes slippery when wet.
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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 dry place away from heat and sunlight.
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SECTION VIII: Exposure Control/Personal Protection

Special Protection Information	
Respiratory Protection	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	Clear liquid
Odor	Amine odour
Specific Gravity	1.10
Boiling Point (°C)	120°C
Melting Point (°C)	-65 °C
Solubility in Water	Soluble
Percent Volatile by Volume	Not Determined
Evaporation Rate	Not Determined
Vapor Pressure (mm Hg)	Not Determined
Vapor Density (Air = 1)	1.0840-1.1150 @ 20 °C

pH	6.5-8.5
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<i>SECTION X: Stability and Reactivity</i>	
Stability	<input checked="" type="checkbox"/> STABLE <input type="checkbox"/> UNSTABLE
Incompatibility (Conditions to Avoid)	Corrosive to steels, copper, brass, aluminium and other metals when exposed to a humid environment. Avoid acids, alkalis
Conditions of Reactivity	Not Known
Hazardous Decomposition Products	Chlorides and nitrous oxide fumes
Hazardous Polymerization	<input checked="" type="checkbox"/> WILL NOT OCCUR <input type="checkbox"/> MAY OCCUR

<i>SECTION XI: Toxicological Information</i>	
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 Synergistic Products	No Information Available

<i>SECTION XII: Ecological Information</i>	
Ecological Information	Avoid contact of material with soil or surface waterways.

<i>SECTION XIII: Disposal Considerations</i>	
Waste Disposal Method	Dispose of material in accordance with local ordinances. Landfill is suggested.

<i>SECTION XIV: Transportation Information</i>	
Proper Shipping Name	NOT DANGEROUS GOODS
Class	Not Applicable
TDG Label	No
UN Number (PIN)	Not Applicable
TDG Placard	No
Packing Group	Not Applicable
Emergency Response Guide Number	Not Registered
Emergency Telephone	CHEMTREC 1-800-424-9300 or +1-703-527-3387 (International)

<i>SECTION XV: Regulatory Information</i>			
WHMIS Classification	Class	Division	Subdivision
Not WHMIS Regulated			

SECTION XVI: Other

Other Information	December 9, 2011 Updated contact information January, 2011 Updated MSDS from supplier March 12, 2008 New product based on information from the supplier
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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. will not be liable for any damages, losses, injuries, or consequential damages, which may result from the use of or reliance on any information contained herein.