

# TRICAN MATERIAL SAFETY DATA SHEET

SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION		
<b>Product Name</b>	<b>TXP-8</b>	<b>Code</b> 3901
<b>Supplier</b>	Trican Well Service LP 5825 N. Sam Houston Parkway, Suite 600 Houston, Texas, 77086 For Product Information/MSDS Call: (281) 716-9152 (8:00 AM – 5:00 PM CST, Monday – Friday)	<b>Revision Date</b>
<b>Product Uses</b>	Hydraulic fracturing friction reducer	<b>Supersedes Date</b>
<b>24 Hour Emergency Number</b>	For Chemical Emergency Spill, Leak, Fire, Exposure or Accident Call CHEMTREC Day or Night  Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-527-3887 (collect calls accepted)	<b>Original Creation</b> June 21, 2011

SECTION 2. HAZARDS IDENTIFICATION									
<b>Hazard Summary</b>	May cause eye or skin irritation.  At high temperatures, liquid can release vapors that readily form flammable mixtures at or above the flashpoint. Avoid excessive heat, open flames, sparks and ignition sources.  Avoid breathing vapors or mists. Do not ingest. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Avoid prolonged or repeated contact with skin. Wear suitable protective clothing, gloves and eye/face protection. Provide eyewash in work area.								
<b>OSHA Regulatory Status</b>	This product is not considered hazardous under OSHA Hazard Communication Standard 29CFR 1910.1200.								
<b>Routes of Exposure</b>	Eye and skin contact								
<b>Potential Acute Health Effects</b>	<table border="0"> <tr> <td><b>Eyes Contact</b></td> <td>May cause eye irritation.</td> </tr> <tr> <td><b>Skin Contact/Absorption</b></td> <td>May cause mild skin irritation.</td> </tr> <tr> <td><b>Inhalation</b></td> <td>None known</td> </tr> <tr> <td><b>Ingestion</b></td> <td>None known</td> </tr> </table>	<b>Eyes Contact</b>	May cause eye irritation.	<b>Skin Contact/Absorption</b>	May cause mild skin irritation.	<b>Inhalation</b>	None known	<b>Ingestion</b>	None known
<b>Eyes Contact</b>	May cause eye irritation.								
<b>Skin Contact/Absorption</b>	May cause mild skin irritation.								
<b>Inhalation</b>	None known								
<b>Ingestion</b>	None known								
<b>Medical Conditions Aggravated by Exposure</b>	Not available								
<i>See also Toxicological Information (Section 11)</i>									
<b>Additional Remarks</b>	None								

SECTION 3. COMPOSITION AND INFORMATION ON INGREDIENTS		
<b>Name</b>	<b>CAS #</b>	<b>% (wt)</b>
cationic water-soluble polymer emulsion*	proprietary	40-100
* Composition/specific chemical identities are withheld as a trade secret under the provisions of OSHA hazard communication standard 29 CFR 1910.1200.		

SECTION 4. FIRST AID MEASURES	
<b>Eye Contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes while holding eyelids open. If irritation persists, seek medical attention.
<b>Skin Contact</b>	Wash thoroughly with soap and water. If irritation persists, seek medical attention.
<b>Inhalation</b>	Remove person to fresh air. If not breathing, provide artificial respiration. If breathing is difficult or symptoms develop, seek prompt medical attention.
<b>Ingestion</b>	First aid should not be required. If discomfort or symptoms persist, seek medical advice.

<b>Notes to Physician</b>	None known
<b>Additional Remarks</b>	None

### SECTION 5. FIRE FIGHTING MEASURES

<b>Conditions of Flammability</b>	Not considered a fire hazard but at high temperatures vapours may be released. When combined with air these vapours could be ignited.
<b>Extinguishing Media</b>	Use alcohol foam, CO <sub>2</sub> , dry chemical or water fog. Do not use solid water stream as it may scatter material and spread the fire. Water spray may be used to cool containers exposed to fire conditions.
<b>Protection of Firefighters</b>	As in any fire, wear full fire fighting gear including NIOSH-approved positive pressure self-contained breathing apparatus.
<b>Hazardous Combustion Products</b>	Carbon monoxide, carbon dioxide and other toxic vapors.
<b>Sensitivity to Static Discharge</b>	This product may be sensitive to static discharge. Bond and ground all containers before transferring material.
<b>Additional Remarks</b>	None

### SECTION 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions</b>	Eliminate all ignition sources. Isolate hazard area and restrict access. Try to work upwind of spill. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8). Shut off leak if it can be done safely.
<b>Environmental Precautions</b>	Prevent additional discharge of material, if possible to do so without hazard. If possible, try to contain and recover floating material.
<b>Clean Up Methods</b>	Move containers from spill area. Contain and collect spillage with noncombustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Contaminated absorbent material may pose the same hazard as the spilled product.
<b>Additional Remarks</b>	Waste must be disposed of in accordance with federal, state and local environmental control regulations.

### SECTION 7. HANDLING AND STORAGE

<b>Fire Prevention</b>	Keep away from heat, open flames, sparks and other sources of ignition. Bond and ground equipment prior to transferring material. Empty containers may contain flammable product residue. Do NOT cut, weld, braze, solder, drill, grind or expose empty containers to heat, flame, sparks, static electricity or other sources of ignition.
<b>Worker Contact</b>	Wear appropriate personal protective equipment. Avoid contact with eyes, skin, and clothing. Avoid breathing vapors or mists. Use only with adequate ventilation. Maintain good personal hygiene. Do not smoke, eat or drink when handling this product. Wash thoroughly after handling product and before eating, drinking or smoking.
<b>Storage Requirements</b>	Store in a cool, dry, well-ventilated area, away from incompatible materials. Keep container tightly closed when not in use.
<b>Additional Remarks</b>	None

### SECTION 8. EXPOSURE CONTROL/PERSONAL PROTECTION

<b>Exposure Guidelines / Limits</b>	Not established.
Please consult with local authorities for acceptable local exposure limits since values can vary from jurisdiction to jurisdiction.	
<b>Engineering Controls</b>	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations below their respective allowable limits. Ensure that eyewash stations and safety showers are near the work location.
<b>Personal Protection</b>	
Personal Protective Equipment recommendations are based on anticipated known manufacturing and use conditions. These conditions are expected to result in only incidental exposure. A thorough review of the job tasks and conditions by a safety professional is recommended, however, to determine the level of person protective equipment appropriate for these job tasks and conditions.	
<b>Respirator</b>	Not required under expected conditions of use. A respirator should be worn if there is potential for inhalation of vapor or mist in high concentrations. A NIOSH-approved air-purifying mask equipped with organic vapor cartridges with N95 prefilters is recommended. In poorly ventilated areas or emergency situations use a NIOSH-approved atmosphere-supplying respirator.

<b>Hands</b>	Nitrile or neoprene gloves.
<b>Eyes</b>	Chemical safety goggles. Also use a face shield if product may be splashed during handling.
<b>Body</b>	Wear long sleeves and pants to prevent prolonged or repeated skin contact. Remove contaminated clothing and launder before reuse.
<b>Feet</b>	Steed toed, chemical resistant boots.
<b>Other</b>	Emergency eyewash fountains and safety showers should be in the immediate vicinity of any potential exposure.

**Protective Clothing (Pictograms)**



**Additional Remarks** None

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical State</b>	Viscous liquid
<b>Appearance and odor</b>	Milky to off-white emulsion with an aliphatic odor.
<b>Odor Threshold</b>	Not available
<b>Specific Gravity</b>	1.04
<b>Flashpoint</b>	Not available
<b>Lower Flammable Limit</b>	Not available
<b>Upper Flammable Limit</b>	Not available
<b>Autoignition Temperature</b>	Not available
<b>Vapor Density (air=1)</b>	Not available
<b>Vapor Pressure</b>	Not available
<b>Evaporation Rate</b>	Not available
<b>Boiling Point</b>	Not available
<b>Pour Point</b>	0 °C (32 F)
<b>pH</b>	3.0 to 5.0
<b>Viscosity</b>	Not available
<b>Solubility in Water</b>	soluble
<b>Coefficient of Water/Oil</b>	Not available
<b>Additional Remarks</b>	bulk density 8.76 lbs per gallon

**SECTION 10. STABILITY AND REACTIVITY DATA**

<b>Chemical Stability</b>	Stable under normal conditions of use and storage.
<b>Conditions of Instability</b>	Not expected
<b>Incompatible Material</b>	Strong acids.
<b>Conditions of Reactivity</b>	None specified
<b>Hazardous Decomposition Products</b>	Not available
<b>Hazardous Polymerization</b>	Will not occur
<b>Additional Remarks</b>	None

**SECTION 11. TOXICOLOGICAL INFORMATION**

<b>Acute Toxicity</b>	Not available for product.
<b>Effects of Acute Exposure</b>	<i>See Hazards Identification (Section 2)</i>
<b>Effects of Chronic Exposure</b>	Not expected
<b>Irritancy of Product</b>	<i>See Hazards Identification (Section 2)</i>
<b>Skin Sensitization</b>	Not available
<b>Respiratory Sensitization</b>	Not available
<b>Carcinogenicity</b>	Not expected
<b>Reproductive Toxicity</b>	Not available
<b>Teratogenicity</b>	Not available
<b>Embryotoxicity</b>	Not available
<b>Mutagenicity</b>	Not available
<b>Synergistic Products/Effects</b>	Not available
<b>Additional Remarks</b>	None

**SECTION 12. ECOLOGICAL INFORMATION**

<b>Ecotoxicity</b>	Not available for product.
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<b>Degradability</b>	Not available
<b>Bioaccumulation</b>	Not available
<b>Mobility</b>	Not available
<b>Additional Remarks</b>	Do not allow product or run-off from fire control to enter storm or sanitary sewers, lakes, rivers, streams or public waterways. Block off drains and ditches. May be harmful to aquatic life.

### SECTION 13. DISPOSAL CONSIDERATIONS

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste facility. Dispose of container and unused contents in accordance with federal, state and local requirements.

Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

**Additional Remarks** None

### SECTION 14. TRANSPORT INFORMATION

**DOT Classification**

Not regulated

**Marine Pollutant** Not available

**Additional Transport Information** None

**Emergency Response Guide** Not applicable

### SECTION 15. REGULATORY INFORMATION

**Occupational Safety & Health Administration** This product is not considered hazardous as defined by OSHA Hazard Communication Standard 29CFR 1910.1200.

**TSCA Inventory Status** All components are included or are exempted from listing on the US Toxic Substances Control Act Inventory (TSCA 8b).

### SECTION 16. OTHER INFORMATION

**NFPA Rating** Health: 1 Flammability: 1 Instability: 0 Special: none

**HMIS Rating** Health: 1 Flammability: 1 Reactivity: 0 Other: none  
*0=Insignificant 1 = Slight 2= Moderate 3= High 4 = Extreme; \* chronic*

**Revisions** New issue.

**Prepared by** Trican Well Service  
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**Trican Well Service LP Disclaimer**

*NOTE: The information on this MSDS is based on data which is considered to be accurate. Trican Well Service Ltd., however, makes no guarantees or warranty, either expressed or implied of the accuracy or completeness of this information. The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of this product. This MSDS was prepared and is to be used for this product. If the product is used as a component in another product, this MSDS information may not be applicable.*

END OF MATERIAL SAFETY DATA SHEET