

**MATERIAL SAFETY DATA SHEET**  
PRECISION LABORATORIES, INC.



Updated: December 22, 2010  
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**Product Name: FS TRANSFORM ULTRA™ - Water Conditioner Plus Surfactant Adjuvant**

**1. PRODUCT AND COMPANY IDENTIFICATION**

Product Name: **FS Transform Ultra™**  
Manufactured by: PRECISION LABORATORIES, INC.  
1429 S. SHIELDS DRIVE  
WAUKEGAN, IL 60085

Emergency telephone number: (Chemtrec Information 24 hours) 1-800-424-9300  
For MSDS, Product Safety, or (Technical Support on Product) 1-800-323-6280  
Regulatory inquiries, call:

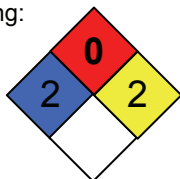
**2. COMPOSITION / INFORMATION ON INGREDIENTS**

<u>Component</u>	<u>CAS#</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>% By Wt.</u>
Proprietary blend	Proprietary	N/E	N/E	Proprietary
<i>Hazardous ingredients present at 1.0% or 0.1% as appropriate by weight.</i>				
Buffer blend	21351-39-3			

**3. HAZARDS IDENTIFICATION**

**EMERGENCY OVERVIEW:**

NFPA Hazard Rating:



**Primary Routes of Exposure:**

Eyes: **Yes**                                      Skin: **Yes**                                      Oral: **Yes**                                      Inhalation: **Yes**

**Signs and Symptoms of Exposure:**

Eye contact: May cause severe irritation and possible permanent injury.  
Skin contact: May result in mild dermatitis and may aggravate existing dermatitis.  
Inhalation: May result in irritation and burning of upper respiratory tract.  
Ingestion: Small amounts of this material aspirated into the respiratory tract during ingestion or while vomiting may cause severe burns and pulmonary injury resulting in chemical pneumonitis, which can be fatal.

**4. FIRST AID MEASURES**

**FIRST AID MEASURES FOR ACCIDENTAL EXPOSURE**

**Eye Exposure:** Check for and remove contact lenses. Immediately flush eyes with water for at least 15 minutes. Cold water may be used. Seek immediate medical attention.

**Skin Exposure:** Immediately remove contaminated clothing and wash affected area with plenty of soap and water. Cold water may be used. Seek immediate medical attention.

**Inhalation:** Move individual to fresh air. If breathing is difficult, give oxygen, or if not breathing, give artificial respiration, and seek immediate medical help attention.

**Ingestion: Do not induce vomiting unless directed to do so by medical personnel.** If individual is fully conscious, give a large amount of water to drink. Never give fluids or force vomiting if the person is unconscious, is having convulsions or has no gag reflex. If large quantities are swallowed, seek immediate medical attention.

**Medical Conditions Aggravated by Overexposure:** Persons with preexisting dermatitis, respiratory illness or allergic history should exercise extra caution when handling this product.

**5. FIRE-FIGHTING MEASURES**

**FIRE HAZARD DATA:**

**Flammability:** N/A                                      **LEL:** N/E                                      **UEL:** N/E  
**Auto-ignition temperature:** N/E  
**Flash Point:** >200°F closed cup Pensky-Martens  
**Extinguishing Media:** Dry chemical powder or water spray or foam or fog or sand/earth.  
**Special Fire Fighting Procedures:** Wear full protective clothing including self-contained breathing apparatus to protect against possible toxic fumes from products and surrounding fire.

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## 6. ACCIDENTAL RELEASE MEASURES

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Evacuate the spill area, except for cleanup personnel. Wear NIOSH/OSHA-approved respirator and protective equipment as referenced in Section 8 below. Control spill with adsorbent pads or booms. Recover free liquid. For recovery or disposal, add inert absorbent (sand, earth, sawdust, etc.) to spill area and shovel into containers for disposal. Product is slippery under foot; flush smooth surfaces thoroughly. See Section 13 for disposal considerations.

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## 7. HANDLING AND STORAGE

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**Precautions to be Taken in Handling:** Keep away from heat, sparks and flame. Keep container closed. Wear appropriate equipment and clothing to prevent eye contact and repeated or prolonged skin contact as referenced in Section 8 below. Use in areas with adequate mechanical exhaust ventilation, or wear respirator.

**Precautions to be Taken in Storage:** Store in original container only. Store in a well ventilated, cool, dry, and secure area. Keep separate from other products to prevent cross contamination. Clean up spilled material immediately. Will corrode incompatible metals such as aluminum, copper, zinc, and mild steel.

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

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**Note:** When selecting personal protective equipment and clothing, follow all of the manufacturer specifications and recommendations that apply to your specific operation and processing conditions. Take into consideration all working conditions and all chemicals to be handled or processed.

**Eye Protection:** Wear splash-proof chemical safety goggles. Contact lenses should not be worn when working with chemicals.

**Skin Protection:** Wear chemically impervious gloves, protective apron, long-sleeved shirt, pants and boots to minimize skin contact. As precautions, wash hands and face with mild soap and water before eating, drinking, smoking or using restroom. After each shift, clean all protective equipment, wash work clothes, and shower.

**Inhalation Protection:** Not required under normal use conditions with good ventilation. Protect against spray mists. Respirator recommended in areas of poor ventilation.

**Other Protection:** Eye wash fountains and drench showers should be located within 100 feet or a 10 second walk or the work area per ANSI Z358.1-1990.

**Personal Protection in Case of Large Spill:** Splash goggles. Full suit. Boots, gloves.

**Exposure Limits:** Recommend following ACGIH TLVs for acids: 8 hours; TWA: 1 mg/m<sup>3</sup> and 15 minutes; STEL: 3 mg/m<sup>3</sup>

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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<b>Physical Appearance &amp; Odor:</b>	Clear, golden yellow liquid with sweet odor
<b>Boiling Point:</b>	>100°C (212°F)
<b>pH:</b>	2.0–2.5 @ 0.5% v/v in water
<b>Solubility in Water:</b>	Soluble.
<b>Specific Gravity:</b>	1.19 @ 20°C

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## 10. STABILITY AND REACTIVITY

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<b>Chemical Stability:</b>	Stable.
<b>Incompatibility:</b>	Reactive with bases, strong oxidizing agents, reducing agents and metals (aluminum).
<b>Hazardous Decomposition Products:</b>	Burning may produce oxides of carbon, nitrogen and sulfur.
<b>Hazardous Polymerization:</b>	Will not occur.
<b>Conditions to Avoid:</b>	None.

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## 11. TOXICOLOGICAL INFORMATION

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No toxicological data is available for this product.

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## 12. ECOLOGICAL INFORMATION

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No ecological data is available for this product. However, it is recommended that this product, its rinsate, and contaminated materials containing this product be kept out of water supplies, ground water, open water and drainage systems and away from access by people, animals, and birds.

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## 13. DISPOSAL CONSIDERATIONS

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**Disposal Methods:** Dispose of material in compliance with applicable federal, state and local environmental regulations. Recycle or rework material if at all possible. Incinerate material at an approved facility, or treat at an acceptable waste treatment facility or municipal waste treatment plant after proper testing and approval of waste samples.

**Container Reuse:** An empty container can contain product residue, and should be not reused. If not professionally cleaned and reconditioned, crushing or other means is recommended to prevent unauthorized reuse.

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#### **14. TRANSPORT INFORMATION**

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**Ship and store away from food, feed, cosmetics, and medical supplies.**

**DOT Status (Highway and rail):** Corrosive Liquid NOS (monocarbamide dihydrogen sulfate). TDG Class 8. Packaging: III. NOT REGULATED if shipped or packaged in containers such as stainless steel or plastic containers which do not react dangerously with this material. DOT regulated CORROSIVE LIQUID NOS if transported in aluminum, copper, zinc, or mild steel containers.

**TSCA Inventory Status:** This product and/or all of its components are included on the TSCA Inventory of Chemical Substances.

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#### **15. REGULATORY INFORMATION**

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**SARA HAZARD:** SARA 311/312 Hazard Categories: Acute, corrosive  
SARA 313 Toxic Chemicals: Phosphoric acid (7664-38-2) <0.0001%; monocarbamide dihydrogen sulfate (21351-39-3) <50%  
SARA 302 Extremely Hazardous Substances: Ethylene oxide (75-21-8) <0.0001%

**CERCLA:** Hazardous Substances: Ethylene oxide (75-21-8) <0.0001%; acetaldehyde (75-07-0) <0.0001%

**WHILE INFORMATION AND RECOMMENDATIONS SET FORTH HEREIN ARE BELIEVED TO BE ACCURATE AS OF THE DATE HEREON, PRECISION LABORATORIES, INC., MAKES NO WARRANTY WITH RESPECT THERETO AND DISCLAIMS ALL LIABILITY FROM RELIANCE THEREON.**

N/R—Not Rated  
N/D—Not Determined  
N/A—Not Applicable  
N/E—Not Established