



**MATERIAL SAFETY DATA SHEET**PRODUCT NAME: Formula 286EX Presoak  
June 17, 2009

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**SECTION 4 - FIRST AID MEASURES**

INHALATION: Remove affected person to fresh air; wash mouth and nasal passages with water repeatedly; seek medical attention.

SKIN: Wash contacted area with soap and water; DO NOT attempt to neutralize with chemical agents; seek medical attention.

EYES: Check for and remove contact lenses. Immediately flush eyes for 15 minutes in clear running water while holding eyelids open; seek medical attention immediately.

INGESTION: Drink large quantities of water or milk; give diluted vinegar or lemon juice to conscious person; DO NOT induce vomiting; seek medical attention immediately.

**SECTION 5 - FIRE FIGHTING MEASURES**

FLASH POINT (METHOD USED)

Non-flammable

FLAMMABLE LIMITS

LEL: Not applicable

UEL: Not applicable

AUTOIGNITION TEMPERATURE:

Not determined

NFPA CLASS: **None**

GENERAL HAZARDS: Product is corrosive. Products of combustion include compounds of carbon, hydrogen and oxygen, including carbon monoxide.

EXTINGUISHING MEDIA

Carbon dioxide, water, water fog, dry chemical, chemical foam.

FIRE FIGHTING PROCEDURES

Keep containers cool with water spray to prevent container rupture due to steam buildup; floor will become slippery if material is released.

CAUTION - material is corrosive.

UNUSUAL FIRE AND EXPLOSION HAZARDS

None

HAZARDOUS COMBUSTION PRODUCTS

Smoke, fumes or vapors, oxides of carbon.

**SECTION 6 - ACCIDENTAL RELEASE MEASURES**

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: CAUTION - CORROSIVE. Wash small spills to sanitary sewer. Confine large spill, soak up with approved absorbent, shovel product into approved container; for spills in excess of allowable quantities (RQ) notify the National Response Center (800) 424 - 8802; refer to SARA Title III, Section 313 40 CFR 372, and CERCLA 40 CFR 302 for detailed instructions concerning reporting requirements.

**SECTION 7 - HANDLING AND STORAGE**

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Keep container closed when not in use; protect containers from abuse; protect from extreme temperatures. Separate from oxidizing materials, metallic powders and other easily oxidized organic materials and reducing agents. CAUTION - material is corrosive. Keep this and other chemicals out of reach of children.

**SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION****ENGINEERING CONTROLS**

The use of local exhaust ventilation is recommended. Use corrosion-resistant ventilation equipment.

**PERSONAL PROTECTION:**

RESPIRATORY PROTECTION: None required while threshold limits are kept below maximum allowable concentrations; if TWA exceeds limits, NIOSH approved respirator must be worn. Refer to 29 CFR 1910.134, ANSI Z88.2, or European Standard EN 149 for complete regulations.

PROTECTIVE GLOVES: Neoprene, butyl or nitrile rubber gloves with cuffs.

EYE PROTECTION: Chemical splash goggles. Refer to 29 CFR 1910.133, ANSI Z87.1, or European Standard EN166.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Coveralls, apron, or other equipment should be worn to prevent skin contact, safety eyewash station nearby.

WORK / HYGIENIC PRACTICES: Practice safe workplace habits. Minimize body contact with this, as well as all chemicals in general.

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**SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

APPEARANCE AND ODOR Amber colored liquid, characteristic odor	VAPOR DENSITY (AIR = 1) > 1
SPECIFIC GRAVITY (WATER = 1) 1.126	EVAPORATION RATE (Water = 1) < 1
SOLUBILITY IN WATER Complete	% VOLATILE (BY WEIGHT) 74.87%
pH 13.5 - 14.0	VAPOR PRESSURE 17 mm Hg @ 20° C
BOILING POINT 212° F ( 100° C )	FREEZING POINT 32° F ( 0° C )
VISCOSITY Like that of water	VOLATILE ORGANIC COMPOUNDS (VOC's) Not specified

**SECTION 10 - STABILITY AND REACTIVITY**

STABILITY UNSTABLE: STABLE: X	CONDITIONS TO AVOID: Extreme temperatures. Contact with active metals can release flammable hydrogen gas.
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INCOMPATIBILITY (MATERIALS TO AVOID): Strong oxidizers, strong acids, strong alkalies.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS: Decomposition will not occur if handled and stored properly. In case of a fire, oxides of carbon, hydrocarbons, fumes or vapors, and smoke may be produced.

HAZARDOUS POLYMERIZATION MAY OCCUR: WILL NOT OCCUR: X	CONDITIONS TO AVOID: None
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**SECTION 11 - TOXICOLOGICAL INFORMATION**

Hazardous Ingredients	CAS #	EINECS #	LD50 of Ingredient Species and Route	LC50 of Ingredient Species
Ethylene glycol monobutyl ether (a,b)	111-76-2	203-905-0	470 mg / kg Oral - rat	450 ppm / 4H Inhalation - rat
Sodium hydroxide (c,d)	1310-73-2	215-185-5	40 mg / kg IPR - Mouse	Not established
NTA Trisodium salt, monohydrate (e,f,g)	18662-53-8	225-768-6	500 IPR - mouse	Not established
(a,c) See Section 15				

**SECTION 12 - ECOLOGICAL INFORMATION**

No data are available on the adverse effects of this material on the environment. Neither COD nor BOD data are available. Based on the chemical composition of this product it is assumed that the mixture can be treated in an acclimatized biological waste treatment plant system in limited quantities. However, such treatment should be evaluated and approved for each specific biological system. None of the ingredients in this mixture are classified as a Marine Pollutant.

**SECTION 13 - DISPOSAL CONSIDERATIONS**

WASTE DISPOSAL METHOD: Dispose of in accordance with local, state, and federal regulations. Refer to 40 CFR 260 - 299 for complete waste disposal regulations for corrosive materials. Consult your local, state, or federal agency before disposing of any chemicals.

**SECTION 14 - TRANSPORT INFORMATION**

PROPER SHIPPING NAME: Caustic alkali liquids, n.o.s. (Sodium hydroxide)

DOT HAZARD CLASS / Pack Group: 8 / III	IATA HAZARD CLASS / Pack Group: 8 / III
REFERENCE: 49 CFR 173.154, .203, .241	IMDG HAZARD CLASS: 8 / III
UN / NA IDENTIFICATION NUMBER: UN 1719	RID/ADR Dangerous Goods Code: 8
LABEL: CORROSIVE	UN TDG Class / Pack Group: 8 / III
HAZARD SYMBOLS: C	Hazard Identification Number (HIN): 80

Note: Transportation information provided is for reference only. Customer is urged to consult 49 CFR 100 - 177, IMDG, IATA, EC, United Nations TDG, and WHMIS (Canada) TDG information manuals for detailed regulations and exceptions covering specific container sizes, packaging materials and methods of shipping.

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**SECTION 15 - REGULATORY INFORMATION**

**TSCA (Toxic Substance Control Act)**

All components of this product are listed on the U.S. Toxic Substances Control Act Chemical Inventory (TSCA Inventory) or are exempted from listing because a Low Volume Exemption has been granted in accordance with 40 CFR 723.50.

**SARA TITLE III (Superfund Amendments and Reauthorization Act)**

311/312 Hazard Categories  
Immediate health

313 Reportable Ingredients:

(a) Indicates a toxic chemical subject to annual reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372.

**CERCLA (Comprehensive Response Compensation and Liability Act)**

(c) The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) has notification requirements for releases or spills to the environment of the Reportable Quantity (RQ for this mixture = 10,000 lbs) or greater amounts, according to 40 CFR 302.

**California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986**

There is a reportable chemical present (NTA Trisodium salt, monohydrate) known to the state of California to cause cancer or reproductive toxicity.

**CPR (Canadian Controlled Products Regulations)**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations. WHMIS Classification: D2B, E

**IDL (Canadian Ingredient Disclosure List)**

Components of this product identified by CAS number and listed on the Canadian Ingredient Disclosure List are shown in Section 3.

**DSL / NDSL (Canadian Domestic Substances List / Non-Domestic Substances List)**

Components of this product identified by CAS number are listed on the DSL or NDSL, or are otherwise in compliance with the New Substances Notification (NSN) regulations. Only ingredients classified as "hazardous" are listed in Section 3 unless otherwise indicated.

**EINECS (European Inventory of Existing Commercial Chemical Substances)**

Components of this product identified by CAS numbers are on the European Inventory of Existing Commercial Chemical Substances.

WGK Water Quality Index: 1

VbK Index: Not applicable

**Risk Phrases**

R35 Causes severe burns.

**SYMBOL(S) REQUIRED FOR LABEL**

Corrosive



**Safety Phrases**

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
S37/39 Wear suitable gloves and eye/face protection.  
S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label whenever possible.)

**SECTION 16 - OTHER INFORMATION**

Specific toxicity tests have not been conducted on this product. Our hazard evaluation is based on Information from similar products, the ingredients, technical literature, and/or professional experience.

**HMIS HAZARD RATINGS**

HEALTH	2	* = Chronic Health Hazard	2 = MODERATE
FLAMMABILITY	0	0 = INSIGNIFICANT	3 = HIGH
PHYSICAL HAZARD	0	1 = SLIGHT	4 = EXTREME

PERSONAL PROTECTIVE EQUIPMENT C Safety Glasses, Gloves, Apron

**REVISION SUMMARY:**

This MSDS has been revised in the following sections:  
No changes noted

**MSDS Prepared by:**

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The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of need that information is current, applicable and suited to the circumstances of use. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, vendor assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Any questions regarding this product should be directed to the manufacturer of the product as described in Section 1.