

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Manufactured For and Distributed By: **Presstek, Inc**
55 Executive Drive
Hudson, NH 03051

Product Name: MEGA LC ACTIVATOR

Chemical Family: Blend

Generic Name: *Presstek Mega LC Activator*

Item Numbers: *Product # 48750*

DOT Hazard Classification: Corrosive Liquid, n.o.s., UN 1760

DOT Shipping Name: Corrosive Liquid, n.o.s., UN 1760

Chemtrec Phone: (800) 424-9300

IMDG Hazard Classification: Class 8 / Pack Group III

Information Phone: (603) 595-7000

IATA Hazard Classification: Class 8 / Pack Group III

SECTION 2 - HAZARDOUS INGREDIENTS

Hazardous Components	% (by Weight)	CAS #	EINECS #	Hazard Symbol	RISK PHRASES (Full Text Section 15)
Sodium Hydroxide (a,b)	1 - 5	1310-73-2	215-185-5	C	R-35
Potassium Hydroxide (a,b)	1 - 5	1310-58-3	215-181-3	C	R-35
n-Aminoethyl Ethanolamine	0.1-2.0	111-41-1	203-867-5	C	R-21/22, 34, 43
Sodium Sulfite	1.0-10.0	7757-83-7	231-821-4	NE	NE
Triethylenetetramine-N,N,N',N'',N''',N''''-Hexaacetic Acid, Hexasodium Salt (c)	0.1-2.0	18719-04-5	Not Found	NE	NE

(a) See Section 15

(b) A "C" in the OSHA PEL or ACGIH TWA column indicates ceiling limits, the concentration that should not be exceeded during any part of the working exposure.

(c) Triethylenetetramine-N,N,N',N'',N''',N''''-hexaacetic acid, hexasodium salt (18719-04-5) and 3,6-Dithia-1,8-Octanetriol (5244-34-8) are not listed on the Canadian DSL or NDSL. All other components of this product identified by CAS number are listed on the DSL or NDSL. Only ingredients classified as "hazardous" are listed in Section 2 unless otherwise indicated.

NOTES: This Material Safety Data Sheet is prepared to comply with the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard (29 CFR 1910.1200), the Canadian Workplace Hazardous Materials Information System (WHMIS), and European Union Directive 91/155/EEC. Hazard symbols and risk phrases are based on maximum listed concentration of each hazardous ingredient. Unlisted ingredients are not "hazardous" per the OSHA Hazard Communication Standard (29 CFR 1910.1200), the Canadian Workplace Hazardous Materials Information System (WHMIS) or the European (GHS) directive 91/155/EEC and are considered trade secrets under US Federal Law (29CFR and 40CFR), Canadian Law (Health Canada Legislation), and European Union Directive 67/548/EEC.

SECTION 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Corrosive alkaline liquid, moderately toxic, contact with eyes or skin may cause chemical burns and severe irritation. Ingestion may cause gastric distress and chemical burns to the digestive tract. **Hazard symbols for this product - C Risk Phrases - R 34, 36/37/38**

POTENTIAL HEALTH EFFECTS

INHALATION:

Corrosive and irritating to upper respiratory tract and mucous membranes.

SKIN:

Corrosive and irritating. Chemical burns may result from contact. Severe irritant.

EYES:

CORROSIVE: Contact with eyes is painful and irritating and will cause chemical burns.

INGESTION:

Corrosive and irritating to digestive tract. May cause gastric distress, stomach pains and vomiting.

CARCINOGENICITY:

NTP? NO	IARC MONOGRAPHS? NO	OSHA REGULATED? NO
CALIFORNIA, Prop.65? NO	ESIS NOTATION? NO	

SECTION 4 - FIRST AID MEASURES

INHALATION:

Remove affected person to fresh air. Wash mouth and nasal passages with water repeatedly. If breathing difficulties persist seek medical attention.

EYES:

Remove contact lenses. Immediately flush eyes for 15 minutes in clear running water while holding eyelids open. Seek medical attention immediately.

SKIN:

Wash contacted area with soap and water. DO NOT attempt to neutralize with chemical agents. If irritation persists, seek medical attention.

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

GENERAL HAZARDS:

Product is corrosive. Products of combustion include compounds of carbon, hydrogen, nitrogen, sulfur 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. **CAUTION** - material is corrosive.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

None

HAZARDOUS COMBUSTION PRODUCTS:

Oxides of carbon, sulfur, nitrogen, hydrogen sulfide, sodium oxide, hydrocarbons, fumes, and smoke may be produced.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

CAUTION - CORROSIVE. Wash small spills to sanitary sewer. Large spills - confine spill, soak up with approved absorbent, shovel product into approved container for disposal. For spills in excess of allowable limits (RQ) notify the National Response Center (800) 424 - 8802; refer to 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

HAZARDOUS COMPONENTS	NIOSH				ACGIH	OSHA		
	TWA ppm	TWA mg/m ³	STEL ppm	STEL mg/m ³	TLV/TWA ppm	TWA mg/m ³	STEL ppm	STEL mg/m ³
Sodium Hydroxide (a,b)	—	2C	—	—	—	2C	—	—
Potassium Hydroxide (a,b)	—	2C	—	—	—	2C	—	—
n-Aminoethyl Ethanolamine	—	NE	—	—	—	NE	—	—
Sodium Sulfite	—	NE	—	—	—	NE	—	—
Triethylenetetramine-N,N,N',N'',N''',N''''-Hexaacetic Acid, Hexasodium Salt (c)	—	NE	—	—	—	NE	—	—

(b) A "C" in the OSHA PEL or ACGIH TWA column indicates ceiling limits, the concentration that should not be exceeded during any part of the working exposure.

PERSONAL PROTECTION

RESPIRATORY PROTECTION:

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

PROTECTIVE GLOVES:

Neoprene or rubber gloves with cuffs.

EYE PROTECTION:

Protective eyeglasses or chemical safety goggles. Refer to 29 CFR 1910.133 or European Standard EN166.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT:

Coveralls, apron, or other equipment should be worn to minimize skin contact.

WORK / HYGIENIC PRACTICES:

Practice safe workplace habits. Minimize body contact with this, as well as all chemicals in general.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR	VAPOR PRESSURE
NE	NE
pH	SPECIFIC GRAVITY (WATER = 1)
13.5 ± 0.3	1.083 - 1.086 at 25°C
BOILING POINT / BOILING RANGE	SOLUBILITY IN WATER
NR	Complete
FLASH POINT	VISCOSITY
Non-Flammable	Not Specified
FLAMMABLE LIMITS	VAPOR DENSITY (AIR = 1)
LEL: NA UEL: NA	> 1
AUTO-IGNITION TEMPERATURE	EVAPORATION RATE (WATER = 1)
ND	< 1

VOLATILE ORGANIC COMPOUND (VOC) INFORMATION

There are no known Volatile Organic Compounds (VOCs) in this product.

SECTION 10 - STABILITY AND REACTIVITY

STABILITY STABLE **CONDITIONS TO AVOID:** Extreme temperatures.

INCOMPATIBILITY (MATERIALS TO AVOID): Strong oxidizers, strong acids, strong alkalis.

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

HAZARDOUS POLYMERIZATION: Will Not Occur. **CONDITIONS TO AVOID:** None Related to Polymerization.

SECTION 11 - TOXICOLOGICAL INFORMATION

Hazardous Components	CAS # EINECS #	LD50 of Ingredient (Specify Species and Route)	LC50 of Ingredient (Specify Species)
Sodium Hydroxide (a,b)	1310-73-2	40 mg/kg (IPR, Mouse)	NE
	215-185-5		
Potassium Hydroxide (a,b)	1310-58-3	273 mg/kg (Oral , Rat)	NE
	215-181-3		
Sodium sulfite, anhydrous	7757-83-7	820 mg/kg (Oral, Mouse)	NE
	231-821-4	3560 mg/kg (Oral , Rat)	
n-Aminoethyl Ethanolamine	111-41-1	3000 mg/kg (Oral , Rat)	NE
	203-867-5		
Triethylenetetramine-N,N,N',N'',N''',N''''-Hexaacetic Acid, Hexasodium Salt	18719-04-5	NE	NE
	NR		

(c) Triethylenetetramine-N,N,N',N'',N''',N''''-hexaacetic acid, hexasodium salt (18719-04-5) and 3,6-Dithia-1,8-Octanetriol (5244-34-8) are not listed on the Canadian DSL or NDSL. All other components of this product identified by CAS number are listed on the DSL or NDSL. Only ingredients classified as "hazardous" are listed in Section 2 unless otherwise indicated.

SECTION 12 - ECOLOGICAL INFORMATION

No data is 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:

According to the European Waste Catalogue, waste codes are application specific and should be assigned by the user based on the application for which the product is used. Dispose of in accordance with Local, State, and Federal Regulations. Refer to "40 CFR Protection of Environment Parts 260 - 299" for complete waste disposal regulations for corrosive materials. Consult your local, state, or Federal Environmental Protection Agency before disposing of any chemicals.

SECTION 14 - TRANSPORT INFORMATION

PROPER SHIPPING NAME: Corrosive liquid, N.O.S. (Sodium Hydroxide, Potassium Hydroxide).

DOT HAZARD CLASS / Pack Group: 8 / III

IATA HAZARD CLASS / Pack Group: 8 / III

REFERENCE: 49CFR 173.154, .203, 241

IMDG HAZARD CLASS: 8 / III

UN / NA IDENTIFICATION NUMBER: UN 1760

RID/ADR Dangerous Goods Code: 8

LABEL: CORROSIVE

UN TDG Class / Pack Group: 8 / III

HAZARD SYMBOLS:

Hazard Identification Number (HIN): 80

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

