MATERIAL SAFETY DATA SHEET Marianna Industries, Inc. 11222 "I" Street Omaha, Nebraska 68137-1296 Non-Emergency (402) 593-0211 EMERGENCY: Infotrac (800) 457-4280

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## I. PRODUCT INFORMATION

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PRODUCT NAME: Super Star10V Stabilized Developer

CHEMICAL NAME: Hydrogen Peroxide Aqueous Solution

CAS NUMBER: N/A

CHEMICAL FAMILY: N/A

CHEMICAL FORMULA: N/A

II. SUMMARY OF HAZARDS

Oxidizer: Contact with combustibles may cause fire. Decomposes yielding oxygen that supports combustion of organic matters and can cause overpressure if confined. Corrosive to eyes, skin, nose, throat and lungs. May cause irreversible tissue damage to eyes including blindness.

III. HAZARDOUS	S COMPONENTS				
EXPOSURE LIMITS					
NAME	CAS NO. %	PEL	TLV	<u>OTHER</u>	
Hydrogen Peroxide	7722-84-1 <3.5%	N/A	N/A	N/A	

IV. CHEMICAL AND PHYSICAL PROPERTIES

FLASH POINT: N/A
VAPOR DENSITY: N/A
SPECIFIC GRAVITY: 0.998-1.010 @ 22°C
EVAPORATION RATE: N/A

APPEARANCE/ODOR: Creamy Liquid, white in color with a slightly pungent odor.

TOXICOLOGICAL INFORMATION: Primary Irritative Effect.

## ECOLOGICAL INFORMATION:

Behavior in water treatment plants ---- Hydrogen Peroxide decomposes to oxygen and water. The product does not contain any inorganically bonded Halogen. The product does not contain any heavy metals and compounds from EC directive No. 76/464.

# V. HEALTH HAZARD DATA & FIRST AID PROCEDURES

	TOXICITY DATA	_
<u>LD50</u>	LC	<u>50</u>

CHEMICAL NAME Hydrogen Peroxide

FIRST AID:

EYE CONTACT: Expected to cause eye irritation and / or burns. As a liquid, vapor or aerosol, this product could cause corneal damage, which may occur several days later. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and consult a physician.

SKIN CONTACT: Expected to cause skin irritation and / or burns. As the concentration and / or time of exposure increases, the extent of skin damage increases. In case of contact, remove any contaminated clothing and wash skin with soap and water for at least 15 minutes and consult a physician and / or seek medical attention.

SKIN ABSORPTION: Wash skin with soap and water. Wear gloves to reduce chance of skin irritation.

INHALATION: Expected to be irritating to the respiratory tract. If inhaled, remove to fresh air. Give oxygen if breathing is difficult.

INGESTION: Expected to cause burns to the gastrointestinal tract. If swallowed, do not induce vomiting. Give a glass of water. Never give anything by mouth to an unconscious person. Call a physician immediately.

CHRONIC EFFECTS OF EXPOSURE: None expected

OTHER HEALTH EFFECTS: Medical conditions such as conjunctivitis of the eye, dermatitis of the skin, asthma and respiratory diseases can be aggravated by exposure to this product.

## VI. EXPOSURE CONTROL MEASURES

EYE PROTECTION: Chemical goggles or full – face shield.

PROTECTIVE GLOVES: Neoprene, butyl rubber or vinyl gloves.

RESPIRATORY PROTECTION: Atmospheric levels should be maintained below the exposure limits listed in Section III by using engineering controls. If not feasible, use a NIOSH approved airpurifying respirator with approved filters and / or absorbents.

OTHER PROTECTION: Provide safety shower and eyewash stations in Work Area.

VENTILATION: Refer to "Industrial Ventilation" by ACGIH for a manual of recommended practices.

PERSONAL HYGIENE/WORK PRACTICES: Wash hands thoroughly with soap and water.

## VII. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (METHOD USED): N/A (water solution)

FLAMMABLE LIMITS LOWER: UPPER: N/A N/A

EXTINGUISHING MEDIA: <u>**Do NOT**</u> use Carbon Dioxide extinguisher or Organic Compounds on this Material: Use only Water or Appropriate Foam to fight fires in which this material is involved. Apply vast amounts of water or appropriate foam for dilution.

FIRE FIGHTING INSTRUCTIONS: Evacuate area and fight fire from safe distance as in any fire wear self-contained positive pressure breathing apparatus (MSHA/ NIOSH Approved or Equivalent) and full protective gear. Containers can build up pressure if exposed to heat. Cool with Water Spray.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Strong Oxidizer, contact with combustible materials may cause a fire. Release of oxygen may support combustion. Contact with incompatible materials (e.g. metals, alkalis, and reducing agents) will cause hazardous decomposition resulting in the release in large quantities of heat, steam, and oxygen gas. Exposure to heat may cause hazardous decomposition. Lower Explosive Limit: Hydrogen Peroxide Vapors (Greater than 40% by weight). Product spontaneously decomposes above 150 degrees Celsius. A severe detonation hazard may exist when mixed with organic liquids e.g. (Kerosene or Gasoline).

VIII. REACTIVITY DATA

STABILITY: Stable under normal storage conditions.

INCOMPATIBILITY: Heavy Metals, Heavy Metal Ions/Salts, Rust, Alkali, Organic Compounds, Reducing Agents, Dust and Dirt.

HAZARDOUS PRODUCTS OF THERMAL COMPOSITION: Oxygen, which will support the combustion of flammable materials.

HAZARDOUS POLYMERIZATION: Will Not Occur.

#### IX. ENVIRONMENTAL & DISPOSAL INFORMATION

GENERAL: CERCLA/SARA required notification to the appropriate Federal, State and Local authorities of releases of hazardous or extremely Hazardous quantities equal to or greater than the Reportable Quantities in 40 CFR 302.4 and 40 FR 355.

ACTION TO TAKE FOR SPILLS/LEAKS: Eliminate the source of the spill, wash area with large quantities of water.

DISPOSAL METHOD: Dispose of in accordance with local, state and federal regulations.

## X. PRECAUTIONS FOR SAFE HANDLING, STORAGE AND USE

HANDLING: Wash thoroughly after handling. Follow all MSDS / Label precautions even after container is emptied because it may retain product residues. Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing.

STORAGE: Do not store near combustible materials. Store in a cool, dry place. Keep container closed when not in use. Recommended container materials: Polyvinyl chloride (rigid PVC). Polyethylene. Polypropylene. Use adequate venting devices on all packages, containers and tanks and check correct operation periodically.

DO NOT confine product in un-vented vessels or between closed valves. Risk of overpressure and bursting due to decomposition in confined spaces and pipes. Polytetrafluroethylene (PTFE), Vanadium Steel: 316 stainless steel, passivated, Aluminum > 99.5%, passivated, Aluminum Magnesium Alloys, passivated. Consult appropriate authorities regarding the storage requirements for liquid oxidizers e.g. NFPA 430.

## XI. SHIPPING INFORMATION

U.S. DOT Transport Information: This is dependent on the Size and % Peroxide Shipped when Shipping and Labeling this Chemical.

Proper Shipping Name: Hydrogen Peroxide Aqueous Solution

Hazard Class: 5.1 Packing Group: III

Transport Label Required: Oxidizer

UN Number if Applicable: UN 2984 ERG. Number: N/A

Additional Markings: Shipping Restrictions: Air forbidden for concentrations greater than 40%

For Concentrations 40% or below: Passenger Aircraft: 1L Max. / pkg. Cargo Aircraft only: 5L Max. / pkg.

If this Chemical does NOT exceed 8% Peroxide content, NO REGULATIONS APPLY.

If this Chemical is Not over a Gallon and is between 8-20 % Peroxide content it qualifies as a Limited Quantity and should be labeled: Consumer Commodity ORM-D

If this Chemical is between 8 – 20 % and is OVER 1 GALLON SIZE it needs the following information: A) 5.1 Placard (Oxidizer)

B) Chemical Name, A Hydrogen Peroxide Label and an UN Number.

Examples of the Hydrogen Peroxide Content via a 10, 20, 30, 40, and 50 Volume Peroxide is as follows: (Approximately): 10 Volume = 3% Peroxide, 20 Volume = 6 % Peroxide

30 Volume = 9 % Peroxide, 40 Volume = 12 % Peroxide and a 50 Volume = 15% Peroxide.

(At this time Marianna Industries, Inc does NOT produce anything over a 50 Volume = 15 % Peroxide Content.

<u>This Material is an oxidizing chemical.</u> HMIS Ratings: Health-3 Flammability – 0 Reactivity – 1

<u>NFPA Ratings: Health-3 Flammability -0 Reactivity - 1</u> THIS MATERIAL IS IN COMPLIANCE WITH THE TOXIC SUBSTANCES CONTROL ACT

For additional product safety or product use information, contact the Product Manager at address or phone number listed on page one.

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