

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identification

Product Name: FENNOFIX 501
Chemical Family: Polyquaternary Amine Solution
CAS Number: Blend

Company Identification

Kemira Chemicals, Inc.
1950 Vaughn Road
Kennesaw, Georgia 30144
USA
800-347-1542 (For product information)
770-422-1250 (For emergencies)
1-800-424-9300 or 1-703-527-3887 (CHEMTREC)

2. COMPOSITION/INFORMATION ON INGREDIENTS

COMPONENT LISTING:

Chemical Name	Amount	CAS Number
POLYAMINE	40.0 - 50.0 %	Confidential
WATER	50.0 - 60.0 %	7732-18-5

This product contains no known hazardous materials as defined by the OSHA Hazard Communication Standard 29 CFR 1910.1200.

EXPOSURE GUIDELINES:

No Information Available.

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

Prolonged or repeated contact may cause skin or eye irritation. Solutions extremely slippery when spilled. The health hazards of this product should be low under normal industrial and commercial uses.

EYE:

May cause slight irritation.

SKIN:

A single, prolonged exposure is not likely to result in the material being absorbed through skin in harmful amounts. Prolonged or repeated skin contact may cause irritation.

INHALATION:

No known hazards in normal industrial use. Avoid breathing vapors or mists. Overexposure to mist or spray may

cause irritation of respiratory tract.

INGESTION:

Essentially non-toxic.

CARCINOGENICITY INFORMATION:

No known cancer hazards.

4. FIRST AID MEASURES

EYE CONTACT FIRST AID:

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation develops or persists.

SKIN CONTACT FIRST AID:

Wash affected area immediately with large amounts of soap and water. Remove contaminated clothing and shoes. Get medical attention if irritation develops or persists.

INHALATION FIRST AID:

Although this product is not known to cause respiratory problems, if breathing is difficult, remove to fresh air and provide oxygen. If not breathing, give artificial respiration. Get medical attention if cough or other symptoms develop.

INGESTION FIRST AID:

Ingestion is not considered a potential route of exposure. If swallowed, immediately give 2 glasses of water. Contact a physician.

NOTES TO PHYSICIAN:

All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. Treat symptomatically.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

PMCC Flash Point: > 93.9 C (> 201.0 F)

Autoignition Temperature: N/A

FLAMMABLE LIMITS IN AIR

LEL: N/A

UEL: N/A

EXTINGUISHING MEDIA:

Water, carbon dioxide, foam or dry powder.

FIRE & EXPLOSION HAZARDS:

When water has evaporated, the residue will burn. No known unusual hazards in a fire/explosion situation.

FIRE FIGHTING INSTRUCTIONS:

As in any fire, wear self-contained breathing apparatus pressure-demand MSHA/NIOSH (approved or equivalent) and full protective gear. Containers can build up pressure if exposed to heat (fire). Dike and collect water used

to fight fire. Contaminated extinguishing water must be disposed of in accordance with applicable regulations.

COMBUSTION PRODUCTS:

In the case of a fire, oxides of carbon, hydrocarbons, fumes, and smoke may be produced.

6. ACCIDENTAL RELEASE MEASURES

SAFEGUARDS (PERSONNEL):

Wear appropriate personal protective equipment. Stop the source of the leak or release. Clean up releases as soon as possible, observing precautions in Exposure Controls/Personal Protection. Contain liquid to prevent further contamination of soil, surface water or groundwater.

INITIAL CONTAINMENT:

Contain spilled material. Absorb spills with inert material. Solutions extremely slippery when spilled.

LARGE SPILLS PROCEDURE:

Contain spilled liquid with sand or earth. Avoid runoff into storm sewers and ditches which lead to waterways. Treat or dispose of waste material in accordance with all local, state/provincial, and national requirements.

SMALL SPILLS PROCEDURE:

Clean up area by absorbent material.

7. HANDLING AND STORAGE

RECOMMENDED STORAGE TEMPERATURE

Minimum: 0 C (32.0 F)
Maximum: 38 C (100.4 F)

HANDLING (PERSONNEL):

Follow all MSDS/label precautions even after container is emptied because they may retain product residues. Avoid prolonged contact with skin or eyes. Wash hands thoroughly after handling.

HANDLING (PHYSICAL ASPECTS):

Store in a secure area. Provide appropriate ventilation.

STORAGE PRECAUTIONS:

Keep container tightly closed. Avoid extreme temperatures. Keep from freezing.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS:

Good general ventilation should be sufficient to control airborne levels. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

EYE / FACE PROTECTION REQUIREMENTS:

Chemical goggles are recommended to avoid contact with eyes.

SKIN PROTECTION REQUIREMENTS:

Wear protective gloves to minimize skin contamination. Selection of specific items such as gloves, boots, apron or full-body suit will depend on operation.

RESPIRATORY PROTECTION REQUIREMENTS:

When there is potential for airborne exposures in excess of applicable limits, wear NIOSH/MSHA approved respiratory protection.

9. PHYSICAL AND CHEMICAL PROPERTIES

FORM:	Liquid
COLOR:	Light Amber
ODOR:	Amine
BOILING POINT:	> 212 F @ 760 mm Hg
VAPOR PRESSURE:	< 17.5 mm Hg @ 68 F
SOLUBILITY IN WATER:	Complete
SPECIFIC GRAVITY:	1.16 @ 25 C (77 F) (Water = 1)
PH:	5.0 to 7.0 @ 100 wt/wt%
EVAPORATION RATE:	< 1 (Butyl Acetate = 1)
DENSITY:	9.66 lbs/gal

10. STABILITY AND REACTIVITY

STABILITY:

This compound is stable at ambient conditions.

POLYMERIZATION:

Hazardous polymerization will not occur.

INCOMPATIBILITY WITH OTHER MATERIALS:

Avoid contact with strong oxidizing agents.

DECOMPOSITION:

Decomposition may produce fumes, smoke, oxides of carbon and hydrocarbons. Oxides of nitrogen may be produced during decomposition, along with hydrogen chloride.

CONDITIONS TO AVOID:

Containers can build up pressure if exposed to heat (fire).

11. TOXICOLOGICAL INFORMATION

SKIN EFFECTS:

Dermal LD50 (rabbit): estimated greater than 2 ml/kg.

ACUTE ORAL EFFECTS:

Oral LD50 (rat): estimated greater than 5 ml/kg.

ACUTE INHALATION EFFECTS:

4-Hour Inhalation LC0 (rat): estimated greater than 2500 ppm.

12. ECOLOGICAL INFORMATION

No information available.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL:

Avoid disposal into waste water treatment facilities. Treat or dispose of waste material in accordance with all local, state/provincial, and national requirements.

EPA Hazardous Waste - NO.

CONTAINER DISPOSAL:

Rinse containers before disposal.

14. TRANSPORT INFORMATION

PRODUCT LABEL: FENNOFIX 501
D.O.T. SHIPPING NAME: Not Regulated

15. REGULATORY INFORMATION

SARA 311 Categories:

Immediate (Acute) Health Effects: No
Delayed (Chronic) Health Effects: No
Fire Hazard: No
Sudden Release Of Pressure Hazard: No
Reactivity Hazard: No

REGULATORY LISTS SEARCHED:

01 = SARA 313	02 = SARA 302/304
03 = ACGIH TWA	04 = ACGIH Calc TLV
05 = CANADIAN WHMIS	06 = CA Proposition 65
07 = CERCLA 302.4	08 = ACGIH STEL
09 = OSHA PEL	10 = OSHA Ceiling

REGULATORY DISCLOSURES:

California Proposition 65: This product contains (a) chemical(s) known to the state of California to cause cancer and birth defects or other reproduction harm: EPICHLOROHYDRIN.

WHMIS Hazard Symbols:

None

MISCELLANEOUS INFORMATION:

This material or all of its components are listed on the Inventory of Existing Chemical Substances under the Toxic Substance Control Act (TSCA).

This material or all of its components are listed on the Canadian Domestic Substances List (DSL).

16. OTHER INFORMATION

REASON FOR ISSUE:	REVISED
PREPARED BY:	HS&E GROUP
APPROVAL DATE:	June 16, 2010
SUPERCEDES DATE:	February 25, 2004
MSDS NUMBER:	300001000846

HMIS Rating:

Health - 1
Flammability - 0
Reactivity - 0

NFPA Rating:

Health - 1
Flammability - 0
Reactivity - 0

REVISION STATEMENT:

Revised information in section(s): 1, 15.

ABBREVIATIONS USED IN THIS MSDS:

TLV - THRESHOLD LIMIT VALUE	TWA - Time Weighted Average
STEL - SHORT TERM EXPOSURE LIMIT	TPQ - Threshold Planning Quantity
RQ - REPORTABLE QUANTITY	PEL - Permissible Exposure Level
C - CEILING LIMIT	CAS - Chemical Abstract Service Number
NDA - NO DATA AVAILABLE	N/A - Not Applicable or Not Available

MSDS PREPARATORY STATEMENT:

Prepared according to the OSHA Hazard Communication Standard (29 CFR 1910.1200) and the ANSI MSDS Standard (Z400.1) by Kemira.

The information and recommendations contained in this Material Safety Data Sheet have been compiled from sources believed to be reliable and to represent the best opinion on the subject as of the date on this sheet. However, no warranty, guarantee or representation, express or implied, is made by Kemira as to the correctness or sufficiency of this information or to the results to be obtained from the use thereof.

END OF MSDS
