MATERIAL SAFETY DATA SHEET

ISSUE DATE: April 4, 1997

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SECTION 1. IDENTIFICATION OF THE SUBSTANCE/ PREPARATION AND/OF THE COMPANY/ UNDERTAKING

PRODUCT NAME CHEMICAL NAME

Poly aliphatic phosphate

TRADE NAME CHEMICAL FORMULA

Secret for business

MANUFACTURER' S NAME EMERGENCY TELEPHONE NUMBER

Tel: Fax:

ADDRESS

SECTION 2. COMPOSITION/ INFORMATION ON INGREDIENTS

SUBSTANCE DESCRIPTION

%

CAS NUMBER

Secret for business

Secret for business

Secret for business

SECTION 3. HAZARDS IDENTIFICATION

FIRE AND EXPLOSION HAZARDS

This product is not defined as flammable or combustible. It is self-extinguishing once the source of ignition is removed. The material is not sensitive to static discharge or physical impact.

It may decompose under fire conditions.

PRIMARY ROUTE OF EXPOSURE

The primary route of exposure to this product are skin contact and inhalation of mist or vapor.

INHALATION ACUTE EXPOSURE

At normal temperatures, this material is not likely to present an inhalation hazard. At elevated temperatures, vapor and /or fumes may cause respiratory tract irritation.

SKIN CONTACT

This material is not expected to cause irritation by skin contact.

EYE CONTACT, ACUTE

This material is not expected to cause irritation by eye contact.

SECTION 4. FIRST-AID MEASURES

EYE CONTACT

Immediately flush eyes with plenty of water at least 15 minutes. Seek medical attention.

SKIN CONTACT

Remove contaminated clothing. Wash away exposed area with soap and water. If skin is damaged, seek medical attention.

INHALATION

Immediately move individual away from exposure and into fresh air. Keep person warm and quiet. If person is not breathing, begin artificial respiration.

INGESTION

Do not induce vomiting. If vomiting occurs, keep head lower than hips to help prevent aspiration. Never give anything by mouth to an unconscious person. Seek medical attention.

SECTION 5. FIRE-FIGHTING MEASURES

FLASH POINT

AUTO-IGNITION TEMPERATURE

LOWER EXPLOSION LIMIT

UPPER EXPLOSION LIMIT

EXTINGUISHING MEDIA

Dry chemical, Foam, Carbon dioxide.

FIRE FIGHTING PROCEDURES

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion.

Evacuate non-essential personnel from the fire area. Firefighters should wear full-face, self-contained breathing apparatus and impervious protective clothing.

HAZARDOUS PRODUCTS BY COMBUSTION

Decomposition of this material under fire conditions can produce carbon monoxide, carbon dioxide and phosphorus oxides.

SECTION 6. ACCIDENTAL RELEASE MEASURES

CLEANUP

Isolate spill area and restrict non-essential personnel. Wear protective equipment to avoid skin contact, eye contact and breathing vapors. Stop leak if possible without personal risk. Avoid heat, flames, sparks and other sources of ignition.

Large spills: Dike area to prevent spill from spreading. Vacuum or scoop up spilled material, then transfer to a

waste container.

Small spills: Absorb with sand or sawdust. Sweep up absorbed material and place in a waste container for disposal.

Clean the spillage area with water and detergent. Do not allow contaminated water to enter waterways or sewers.

SECTION 7. HANDLING AND STORAGE

HANDLING

Wear protective clothing including chemical goggles and rubber gloves when handling this product to avoid eye and skin contact. Handle in a well-ventilated area. Avoid breathing vapors.

STORAGE

Store in a cool, dry, well-ventilated area. Keep containers tightly closed when not in use. Keep away from sources of heat or flame.

SECTION 8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

RESPIRATORY PROTECTION

Use an organic vapor/acid gas respirator with dust, mist, and fume filters to reduce potential for inhalation exposure .

SKIN PROTECTION

Skin contact with the liquid should be prevented through the use of suitable protective clothing, gloves, and foot-wear selected with regard for use condition and exposure potential.

EYE PROTECTION

Eye contact with the liquid should be prevented through the use of chemical safety goggles.

VENTILATION PROTECTION

This material should be handled in a well-ventilated area.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE ODOR

FLAMMABILITY FLASH POINT

LOWER EXPLOSION LIMIT AUTO-IGNITION TEMPERATURE

UPPER EXPLOSION LIMIT OXIDIZING PROPERTIES

VAPOR PRESSURE RELATIVE DENSITY

SOLUBILITY IN WATER

PARTITION COEFFICIENT

VISCOSITY MELTING POINT

SECTION 10. STABILITY AND REACTIVITY

STABILITY

This material is stable at normal temperatures and atmospheric pressure. It is not self-reactive and is not sensitive to static discharge or physical impact.

INCOMPATIBILITIES

This material is incompatible with strong oxidizers, strong acids and strong alkalis. It hydrolyzes slowly at normal temperatures in acidic or alkaline aqueous solutions.

POLYMERIZATION

Hazardous polymerization is not expected to occur.

DECOMPOSITION

Under wet alkaline or acidic conditions, this material hydrolyzes slowly at normal temperatures.

CONDITIONS TO AVOID

Contact with strong acids, strong alkalis and strong oxidizers should be avoided.

SECTION 11. TOXICOLOGICAL INFORMATION

ACUTE ORAL TOXICITY

ACUTE DERMAL TOXICITY

ACUTE INHALATION TOXICITY

SENSITIZATION

ACUTE EYE IRRITATION

ACUTE SKIN IRRITATION

REPEATED DOSE TOXICITY

MUTAGENICITY

CHROMOSOME ABERRATION

MICRONUCLEI IN THE BONE MARROW
CARCINOGENICITY
REPRODUCTIVE TOXICITY
SECTION 12. ECOLOGICAL INFORMATION
BIODEGRADABILITY
ACCUMULATION
ACUTE TOXICITY TO FISH
ACUTE TOXICITY TO CRUSTACEA
ALGAL GROWTH INHIBITION
ACTIVATED SEWAGE SLUDGE RESPIRATION INHIBITION
SECTION 13. DISPOSAL CONSIDERATIONS
WASTE DISPOSAL Dispose in accordance with all applicable regulations.
CONTAINER DISPOSAL Empty containers should be disposed of in accordance with all applicable laws and regulations.
SECTION 14. TRANSPORT INFORMATION
INTERNATIONAL REGULATIONS

INTERNATIONAL REGULATIONS Land: No classification assigned. Sea: No classification assigned. Air: No classification assigned.

UN CLASSIFICATION NUMBER None
SECTION 15. REGULATORY INFORMATION
REACH (EU)
ECL (Korea)
TSCA(USA)
IECSC (P.R.China)
DSL(Canada)
AICS(Australia)
PICCS (Philippine)
SWISS (Switzerland)
NZIoC (New Zealand)
ENCS (Japan)
SECTION 16. OTHER INFORMATION

The information set forth herein is given in good faith but no warranty, expressed or implied, is made.