Material Safety Data Sheet – Fluoro Phos

EMERGENCY # FOR NATIONAL RESPONSE CENTER (800) 424-8802

CHEMICAL IDENTIFICATION:

Product Name: Fluoro Phos – Fluorescent Phosphate Detection Kit

Catalog # FLPHOS100-2 and FLPHOS100-3

Components:
Part # 4025: Detection Reagent
Part # 6026: Enzyme A
Part # 6027: Enzyme B
Part # 7023: 25X substrate mix
Part # 6028: Horseradish Peroxidase enzyme
Part # 3059: 1X Reaction Buffer
Part # 3061: Sample diluent
Part # 3060: Phosphate standard

Part# 6026,6027 and 6028: Enzyme Mix:

Section 1 - Identification
Synonyms: NA
CAS #: NA
Chemical Formula: NA

Section 2 - Hazards Identification
Not known.

Section 3 – Characteristics
Colorless liquid
Boiling point °f: No data available.
Vapor pressure (mm Hg): No data available.
Vapor density: No data available.
Solubility in water: Soluble
Specific gravity: Not applicable.
% Volatile by volume: Not applicable.
Evaporation rate: No data available.
pH: 6.6

Section 4 - Storage, Handling, Stability
The material is air sensitive. Store liquid at -20^{0}C or 4^{0}C as labeled.

Section 5 - Safety Control Measures
Gloves and standard laboratory protective clothing and eyewear are recommended. Safe laboratory practices should be followed.

Section 6 - Health Hazard Data

May enter the body through inhalation, ingestion, eye, and skin contact. To our knowledge the hazards of this material have not been fully tested. Handle material with caution.

RTECS Number: None known

Toxicity: We are not aware of any toxicity data for this product.

Health Hazards: We are not aware of any reported health hazards for this product. We recommend treating all chemicals with caution.

Potential Hazards: To our knowledge, the health hazards have not been thoroughly investigated.

Carcinogenicity: Not listed by NTP, IARC or OSHA.

Section 7 - First Aid Measures
Avoid prolonged or repeated exposure. Remove contaminated clothing and shoes, and wash before reuse.
Skin: Wash skin thoroughly with soap and water.
Eyes: Flush with water for at least 15 minutes.
Ingestion: Seek medical attention.
Inhalation: Remove to fresh air. Seek medical attention.

Section 8 - Fire/Explosion Hazard Data
Use any means suitable for extinguishing surrounding fire. It is not necessary to use any special firefighting procedures. Water spray, carbon dioxide, dry chemical powder or appropriate foam can all be used.
Thermal Decomposition: No decomposition if used according to specifications.
Dangerous Reactions: None identified.
Dangerous Products of Decomposition: No dangerous decomposition products identified.

Section 9 - Accidental Release Measures
For release of large amounts of material, wear safety glasses and rubber gloves. Stop source of leak and isolate spill area. Collect material in an appropriate container and dispose all waste in accordance with applicable laws. Dispose of all waste in accordance with all national, state, and local regulations.

Part# 3059, 3060 and 3061:

Section 1 - Identification
CAS No.: NA
Molecular Weight: NA
Chemical Formula: NA

Section 2 - Hazard Identification
Harmful if swallowed. May cause irritation, avoid breathing vapors or dust. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling. Keep container closed.

Section 3 - First Aid Measures
Harmful if swallowed. May cause irritation, avoid breathing vapors or dusts. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling. Keep container closed
FIRST AID: SKIN: Wash exposed area with soap and water. If irritation persists, seek medical attention.
EYES: Wash eyes with plenty of water for at least 15 minutes, lifting lids occasionally. Seek Medical Aid.
INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen

INGESTION: If swallowed, induce vomiting immediately after giving two glasses of water. Never give anything by mouth to an unconscious person.

Section 4 - Fire Fighting Measures
Fire Extinguisher Type: Any means suitable for extinguishing surrounding fire
Fire/Explosion Hazards: Thermal decomposition produces highly toxic fumes.
Fire Fighting Procedure: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and clothing.

Section 5 - Accidental Release Measures
Absorb spill with inert material, then place in a chemical waste container. Dispose of in a manner consistent with federal, local law.

Section 6 - Handling and Storage
Store in a cool dry place. Do not get in eyes, on skin, on clothing. Wash thoroughly after handling

Section 7 - Exposure Controls & Personal Protection
Ventilation: Local Exhaust
Use Gloves, Safety Glasses with side shield.
Other Protective Equipment: Use safe laboratory handling procedures.

Section 8 - Stability and Reactivity Information
Stability: Stable
Conditions to Avoid: Avoid contact with incompatible materials.
Materials to Avoid: Strong acids, aluminum and steel
Hazardous Decomposition Products: Thermal decomposition may produce toxic gases.
Hazardous Polymerization: Will Not Occur
Condition to Avoid: None known

Section 9 - Additional Information
Conditions aggravated/target organs: Persons with pre-existing eye and skin conditions will be more susceptible. Acute: Skin irritation, mild eye irritation, ingestion of large quantities may cause potassium poisoning. Chronic: Dermatitis, eye damage.
DOT Classification: Not Regulated

Part# 4025:

Section 1 - Chemical Identification
Synonyms: ADHP, 10-Acetyl-3, 7-dihydroxyphenoxazine
CAS #: 119171-73-2
Chemical Formula: $C_{14}H_{11}NO_4$

Section 2 - Hazard Identification
Not known.

Section 3 - Characteristics
Red-brown powder
Boiling point °f: No data available.
Vapor pressure (mm Hg): No data available.
Vapor density: No data available.
Solubility in water: Very low.

Specific gravity: Not applicable.
% Volatile by volume: Not applicable.
Evaporation rate: No data available.
pH: Not applicable to a powder.

Section 4 - Storage, Handling, Stability
The material is air sensitive. Store dry material at 4^0C.

Section 5 - Safety Control Measures
Gloves and standard laboratory protective clothing and eyewear are recommended. Safe laboratory practices should be followed.

Section 6 - Health Hazard Data
May enter the body through inhalation, ingestion, eye, and skin contact. To our knowledge the hazards of this material have not been fully tested. Handle material with caution.

RTECS Number:	None known
Toxicity:	We are not aware of any toxicity data for this product.
Health Hazards:	We are not aware of any reported health hazards for this product. We recommend treating all chemicals with caution.
Potential Hazards:	To our knowledge, the health hazards have not been thoroughly investigated.
Carcinogenicity:	Not listed by NTP, IARC or OSHA.

Section 7 - First Aid Measures
Avoid prolonged or repeated exposure. Remove contaminated clothing and shoes, and wash before reuse.
Skin: Wash skin thoroughly with soap and water.
Eyes: Flush with water for at least 15 minutes.
Ingestion: Seek medical attention.
Inhalation: Remove to fresh air. Seek medical attention.

Section 8 - Fire/Explosion Hazard Data
Use any means suitable for extinguishing surrounding fire. It is not necessary to use any special firefighting procedures. Water spray, carbon dioxide, dry chemical powder or appropriate foam can all be used.
Thermal Decomposition: No decomposition if used according to specifications.
Dangerous Reactions: None identified.
Dangerous Products of Decomposition: No dangerous decomposition products identified.

Section 9 - Accidental Release Measures
For release of large amounts of material, wear safety glasses and rubber gloves. Stop source of leak and isolate spill area. Collect material in an appropriate container and dispose all waste in accordance with applicable laws. Dispose of all waste in accordance with all national, state, and local regulations.

Part # 7023:

2. HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazards-No known OSHA hazards

Not a dangerous substance according to GHS.

HMIS Classification

Health hazard: 0

Flammability: 0

Physical hazards: 0

NFPA Rating

Health hazard: 0

Fire: 0

Reactivity Hazard: 0

Potential Health Effects

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.

Skin May be harmful if absorbed through skin. May cause skin irritation.

Eyes May cause eye irritation.

Ingestion May be harmful if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : Maltobiose

4-O-α-D-Glucopyranosyl-D-glucose

Formula : $C_{12}H_{22}O_{11} \cdot H_2O$

Molecular Weight : 360.31 g/mol

No ingredients are hazardous according to OSHA criteria.

4. FIRST AID MEASURES

If inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration.

In case of skin contact: Wash off with soap and plenty of water.

In case of eye contact: Flush eyes with water as a precaution.

If swallowed: Never give anything by mouth to an unconscious person. Rinse mouth with water.

5. FIREFIGHTING MEASURES

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

Hazardous combustion products

Hazardous decomposition products formed under fire conditions. - Carbon oxides

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: Avoid dust formation. Avoid breathing vapors, mist or gas.

Environmental precautions: Do not let product enter drains.

Methods and materials for containment and cleaning up

Sweep up and shovel. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling: Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place.

Keep in a dry place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION
Contains no substances with occupational exposure limit values.
Personal protective equipment
Respiratory protection
Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
Hand protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
Immersion protection
Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: > 480 min
Material tested: Dermatril® (Aldrich Z677272, Size M)
Splash protection
Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: > 30 min
Material tested:Dermatril® (Aldrich Z677272, Size M)
data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 873000, e-mail sales@kcl.de, test method: EN374
If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an Industrial Hygienist familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.
Eye protection: Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
Skin and body protection: Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Hygiene measures: General industrial hygiene practice.
9. PHYSICAL AND CHEMICAL PROPERTIES
Appearance Form: powder
Color :white
Safety data: pH 5.0 - 7 at 180 g/l at 25 °C (77 °F)
Melting point/freezing point: 119 - 121 °C (246 - 250 °F)
Boiling point no data available
Flash point no data available
Ignition temperature no data available
Autoignition temperature: no data available
Lower explosion limit no data available
Upper explosion limit no data available
Vapour pressure no data available
Density no data available

Water solubility 180 g/l at 20 °C (68 °F) - completely soluble
Partition coefficient: n-octanol/water- no data available
Relative vapour density-no data available
Odour- no data available
Odour Threshold- no data available
Evaporation rate -no data available
10. STABILITY AND REACTIVITY
Chemical stability- Stable under recommended storage conditions.
Possibility of hazardous reactions-no data available
Conditions to avoid-no data available
Materials to avoid-Strong oxidizing agents
Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. - Carbon oxides
Other decomposition products - no data available
11. TOXICOLOGICAL INFORMATION
Acute toxicity
Oral LD50-no data available
Inhalation LC50-no data available
Dermal LD50-no data available
Other information on acute toxicity-no data available
Skin corrosion/ corrosion/irritation-no data available
Serious eye damage/eye irritation-no data available
Respiratory or skin sensitization-no data available
Germ cell mutagenicity-no data available
Carcinogenicity
IARC: No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH: No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP: No components of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA: No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Reproductive toxicity- no data available
Teratogenicity- no data available
Specific target organ toxicity - single exposure (Globally Harmonized System)
no data available
Specific target organ toxicity - repeated exposure (Globally Harmonized System)
no data available
Aspiration hazard-no data available
Potential health effects
Inhalation May be harmful if inhaled. May cause respiratory tract irritation.
Ingestion May be harmful if swallowed.
Skin May be harmful if absorbed through skin. May cause skin irritation.
Eyes May cause eye irritation.
Signs and Symptoms of Exposure
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Synergistic effects
no data available
Additional Information RTECS: Not available
12. ECOLOGICAL INFORMATION
Toxicity-no data available
Persistence and degradability-no data available
Bioaccumulative potential-no data available
Mobility in soil-no data available
PBT and vPvB assessment-no data available
Other adverse effects-no data available
13. DISPOSAL CONSIDERATIONS
Product Offer surplus and non-recyclable solutions to a licensed disposal company.
Contaminated packaging
Dispose of as unused product.
14. TRANSPORT INFORMATION
DOT (US)-Not dangerous goods
IMDG-Not dangerous goods
IATA-Not dangerous goods
15. REGULATORY INFORMATION
OSHA Hazards -No known OSHA hazards
SARA 302 Components
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 313 Components
SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold
(De Minimis) reporting levels established by SARA Title III, Section 313.
SARA 311/312 Hazards
No SARA Hazards
Massachusetts Right to Know Components
No components are subject to the Massachusetts Right to Know Act.
Pennsylvania Right to Know Components
Maltose monohydrate
CAS-No.
6363-53-7

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