

# BioFX® AP-Yellow One Component Microwell Substrate (pNPP) with Stabilizing Pellets

## Safety Data Sheet

Revision date: 12-Nov-2014

Supersedes: 15-Aug-2011

Version: 2

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product name : BioFX® AP-Yellow One Component Microwell Substrate (pNPP) with Stabilizing Pellets  
 Product form : Mixture  
 Product code : PNPS

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : For laboratory use

#### 1.3. Details of the supplier of the safety data sheet

SurModics, Inc.  
 9924 West 74th Street  
 Eden Prairie, MN 55344 USA  
 Phone: (952) 500-7000  
 Fax: (952) 500-7001

#### 1.4. Emergency telephone number

Emergency number : CHEMTREC: 1-800-424-9300 (US and Canada) / 1-703-527-3887 (International shipments)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification (GHS-US)

Skin Irrit. 2 H315  
 Eye Dam. 1 H318  
 Carc. 2 H351  
 STOT RE 2 H373

#### 2.2. Label elements

##### GHS-US labeling

Hazard pictograms (GHS-US)



Signal word (GHS-US)

: **Danger**

Hazard statements (GHS-US)

: H315 - Causes skin irritation  
 H318 - Causes serious eye damage  
 H351 - Suspected of causing cancer  
 H373 - May cause damage to organs (liver, kidneys) through prolonged or repeated exposure

Precautionary statements (GHS-US)

: P201 - Obtain special instructions before use  
 P202 - Do not handle until all safety precautions have been read and understood  
 P260 - Do not breathe vapors, fume, mist  
 P264 - Wash hands, forearms and face thoroughly after handling  
 P280 - Wear eye protection, protective clothing, face shield, protective gloves  
 P302+P352 - If on skin: Wash with plenty of water  
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 P308+P313 - If exposed or concerned: Get medical advice/attention  
 P310 - Immediately call a doctor  
 P314 - Get medical advice/attention if you feel unwell  
 P321 - Specific treatment (see first aid instructions on this label)  
 P332+P313 - If skin irritation occurs: Get medical advice/attention  
 P362 - Take off contaminated clothing and wash before reuse  
 P405 - Store locked up  
 P501 - Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection

# BioFX® AP-Yellow One Component Microwell Substrate (pNPP) with Stabilizing Pellets

## Safety Data Sheet

site except for empty clean containers which can be disposed of as non-hazardous waste

### 2.3. Other hazards

Other hazards not contributing to the classification : None under normal conditions.

### 2.4. Unknown acute toxicity (GHS-US)

No data available

## SECTION 3: Composition/information on ingredients

### 3.1. Substance

Not applicable

### 3.2. Mixture

Name	Product identifier	%
Diethanolamine	(CAS No) 111-42-2	7 - 13
Hydrogen chloride	(CAS No) 7647-01-0	0.1 - 1

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. If respiratory symptoms persist, obtain medical attention.

First-aid measures after skin contact : IF ON SKIN (or clothing), remove affected clothing and wash all exposed skin with water for at least 15 minutes. If irritation persists, call a physician.

First-aid measures after eye contact : IF IN EYES: Immediately flush with plenty of water for at least 15 minutes. Get medical advice/attention.

First-aid measures after ingestion : IF SWALLOWED: Do not induce vomiting. Get medical advice/attention if you feel unwell.

### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : Causes skin irritation. Causes serious eye damage. May cause damage to organs (Damage to kidneys and liver).

Symptoms/injuries after inhalation : May cause respiratory irritation.

Symptoms/injuries after skin contact : Causes skin irritation.

Symptoms/injuries after eye contact : Causes serious eye damage.

Symptoms/injuries after ingestion : May cause gastrointestinal irritation.

Chronic symptoms : Suspected of causing cancer. May cause damage to target organs.

### 4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

### 5.2. Special hazards arising from the substance or mixture

Fire hazard : Not flammable.

Explosion hazard : Product is not explosive.

Reactivity : No dangerous reactions known under normal conditions of use.

### 5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Do not dispose of fire-fighting water in the environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

General measures : No specific emergency measures are required other than good laboratory hygiene and safety practices.

# BioFX® AP-Yellow One Component Microwell Substrate (pNPP) with Stabilizing Pellets

## Safety Data Sheet

### 6.1.1. For non-emergency personnel

Protective equipment : Wear Protective equipment as described in Section 8.  
Emergency procedures : Evacuate unnecessary personnel.

### 6.1.2. For emergency responders

Protective equipment : Wear suitable protective clothing, gloves and eye or face protection. Approved supplied-air respirator, in case of emergency.

### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

For containment : Do not discharge to public wastewater systems without permit of pollution control authorities. No discharge to surface waters is allowed without an NPDES permit.

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Place in a suitable container for disposal in accordance with the waste regulations (see Section 13).

### 6.4. Reference to other sections

No additional information available

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Do not handle until all safety precautions have been read and understood. Use appropriate personal protection equipment (PPE). Keep away from sources of ignition - No smoking. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep the container tightly closed. Store in a dry, cool and well-ventilated place. Store away from light. Avoid elevated temperatures.

Storage temperature : 2 - 8 °C

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Diethanolamine (111-42-2)	
ACGIH TWA (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup> inhalable fraction and vapor
OSHA PEL (TWA) (mg/m <sup>3</sup> )	15 mg/m <sup>3</sup> vacated
OSHA PEL (TWA) (ppm)	3 ppm vacated
Hydrogen chloride (7647-01-0)	
ACGIH Ceiling (ppm)	2 ppm
OSHA PEL (Ceiling) (mg/m <sup>3</sup> )	7 mg/m <sup>3</sup>
OSHA PEL (Ceiling) (ppm)	5 ppm

### 8.2. Exposure controls

Appropriate engineering controls : Ensure adequate ventilation, especially in confined areas.

Personal protective equipment : Gloves. Wear chemical goggles and face shield in combination. Wear labcoat with full coverage clothing.



Hand protection : Use gloves chemically resistant to this material when prolonged or repeated contact could occur. Gloves should be classified under Standard EN 374 or ASTM F1296. Suggested glove materials are: Neoprene, Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, PVC or vinyl.

Eye protection : Chemical goggles and face shield must be worn in combination.

Skin and body protection : Lab coat. Wear suitable protective clothing. Wear long sleeves.

Respiratory protection : Where excessive vapor, mist, or dust may result, use NIOSH approved respiratory protection equipment.

# BioFX® AP-Yellow One Component Microwell Substrate (pNPP) with Stabilizing Pellets

## Safety Data Sheet

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Color	: Clear. light yellow.
Odor	: Odorless.
Odor Threshold	: No data available
pH	: 9.7 - 10.5
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Solubility	: Water: 100 %
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: Product is not explosive.
Oxidizing properties	: Not an Oxidizer.
Explosive limits	: No data available

#### 9.2. Other information

No additional information available

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

No dangerous reactions known under normal conditions of use.

#### 10.2. Chemical stability

Stable under recommended handling and storage conditions (see section 7).

#### 10.3. Possibility of hazardous reactions

None known.

#### 10.4. Conditions to avoid

Light. Elevated temperatures. Moisture.

#### 10.5. Incompatible materials

Strong oxidizing agents. Strong acids. Some metals.

#### 10.6. Hazardous decomposition products

Hazardous fumes of nitrous oxides (NOx) and carbon oxides. Phosphorus oxides.

### SECTION 11: Toxicological information

#### 11.1. Information on toxicological effects

Acute toxicity : Not classified

Diethanolamine (111-42-2)	
LD50 oral rat	620 µl/kg
LD50 dermal rabbit	7640 µl/kg
ATE CLP (oral)	500.000 mg/kg body weight
Hydrogen chloride (7647-01-0)	
LD50 oral rat	700 mg/kg
LD50 dermal rabbit	> 5010 mg/kg
LC50 inhalation rat (ppm)	3124 ppm/1h

# BioFX® AP-Yellow One Component Microwell Substrate (pNPP) with Stabilizing Pellets

## Safety Data Sheet

ATE CLP (gases)	700.000 ppmV/4h
ATE CLP (vapors)	3.000 mg/l/4h
ATE CLP (dust, mist)	0.500 mg/l/4h

Skin corrosion/irritation	: Causes skin irritation. pH: 9.7 - 10.5
Serious eye damage/irritation	: Causes serious eye damage. pH: 9.7 - 10.5
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Suspected of causing cancer.

<b>Diethanolamine (111-42-2)</b>	
IARC group	2B - Possibly carcinogenic to humans

<b>Hydrogen chloride (7647-01-0)</b>	
IARC group	3 - Not classifiable

Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: May cause damage to organs (liver, kidneys) through prolonged or repeated exposure.
Aspiration hazard	: Not classified
Symptoms/injuries after inhalation	: May cause respiratory irritation.
Symptoms/injuries after skin contact	: Causes skin irritation.
Symptoms/injuries after eye contact	: Causes serious eye damage.
Symptoms/injuries after ingestion	: May cause gastrointestinal irritation.
Chronic symptoms	: Suspected of causing cancer. May cause damage to target organs.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general	: No data available.
-------------------	----------------------

### 12.2. Persistence and degradability

<b>BioFX® AP-Yellow One Component Microwell Substrate (pNPP) with Stabilizing Pellets</b>	
Persistence and degradability	Not established.

<b>Diethanolamine (111-42-2)</b>	
Persistence and degradability	Not established.

### 12.3. Bioaccumulative potential

<b>Diethanolamine (111-42-2)</b>	
Bioaccumulative potential	Not established.

### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods	: Do not discharge to public wastewater systems without permit of pollution control authorities. No discharge to surface waters is allowed without an NPDES permit.
Waste disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations. Do not allow the product to be released into the environment.

## SECTION 14: Transport information

### In accordance with DOT

Not hazardous for transport

### Additional information

Other information	: No supplementary information available.
-------------------	---

# BioFX® AP-Yellow One Component Microwell Substrate (pNPP) with Stabilizing Pellets

## Safety Data Sheet

### Transport by sea

No additional information available

### Air transport

No additional information available

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

BioFX® AP-Yellow One Component Microwell Substrate (pNPP) with Stabilizing Pellets	
All chemical substances in this product are listed in the EPA (Environmental Protection Agency) TSCA (Toxic Substances Control Act) Inventory	
SARA Section 311/312 Hazard Classes	Delayed (chronic) health hazard Immediate (acute) health hazard

Diethanolamine (111-42-2)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Listed on United States SARA Section 313	
RQ (Reportable quantity, section 304 of EPA's List of Lists) :	100 lb
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard
SARA Section 313 - Emission Reporting	1 % de minimis concentration

Hydrogen chloride (7647-01-0)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Listed on United States SARA Section 313	
RQ (Reportable quantity, section 304 of EPA's List of Lists) :	5000 lb
SARA Section 302 Threshold Planning Quantity (TPQ)	500 lb (gas only)
SARA Section 313 - Emission Reporting	1 % (acid aerosols including mists, vapors, gas, fog, and other airborne form of any particle size)

### 15.2. International regulations

#### CANADA

No additional information available

### 15.3. US State regulations

#### California Proposition 65

This product contains, or may contain, trace quantities of a substance(s) known to the state of California to cause cancer and/or reproductive toxicity

Diethanolamine (111-42-2)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significance risk level (NSRL)
Yes	No	No	No	

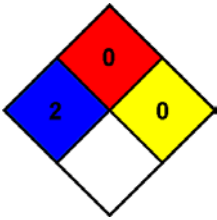
Diethanolamine (111-42-2)	
U.S. - Massachusetts - Right To Know List	
U.S. - New Jersey - Right to Know Hazardous Substance List	
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List	
Hydrogen chloride (7647-01-0)	
U.S. - Massachusetts - Right To Know List	
U.S. - New Jersey - Right to Know Hazardous Substance List	
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List	

## SECTION 16: Other information

Indication of changes : Revision 2: New SDS Created.  
Revision date : 12-Nov-2014  
Other information : Author: EKW.

BioFX® AP-Yellow One Component Microwell Substrate (pNPP) with Stabilizing Pellets

Safety Data Sheet

NFPA health hazard	: 2 - Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.	
NFPA fire hazard	: 0 - Materials that will not burn.	
NFPA reactivity	: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.	

The above product information is believed to be correct, but SurModics, Inc. makes no representation of its accuracy or completeness. Persons receiving this information must exercise their independent judgment in determining the product's safety and suitability for its intended use. SURMODICS, INC. MAKES NO REPRESENTATIONS OR WARRANTIES, EXPRESSED OR IMPLIED, OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND WILL NOT BE RESPONSIBLE FOR DAMAGES RESULTING FROM USE OF THE PRODUCT OR RELIANCE UPON THIS INFORMATION.