

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

Safety Data Sheet

Revision date: Oct-2020 Supersedes: 12-Nov-2014

Version: 03

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

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P501 - Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection 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.

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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 ³)	1 mg/m ³ inhalable fraction and vapor
OSHA PEL (TWA) (mg/m ³)	15 mg/m ³ vacated
OSHA PEL (TWA) (ppm)	3 ppm vacated
Hydrogen chloride (7647-01-0)	
ACGIH Ceiling (ppm)	2 ppm
OSHA PEL (Ceiling) (mg/m ³)	7 mg/m ³
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.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Color	: Colorless to very light yellow
Odor	: No data available
Odor Threshold	: No data available
pH	: Basic
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

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

Diethanolamine (111-42-2)	
IARC group	2B - Possibly carcinogenic to humans
Hydrogen chloride (7647-01-0)	
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.
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12.2. Persistence and degradability

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

Diethanolamine (111-42-2)	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Diethanolamine (111-42-2)	
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.
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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 02: New SDS Created.
Revision 03: Periodic review.

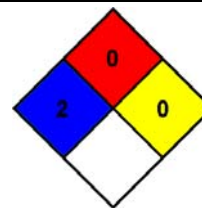
Revision date : Oct-2020

Other information : Author: DRH

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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.



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