

SAFETY DATA SHEET

Section 1 – Identification

| | |
|---------------------------|--|
| Product Name | FOXP3 Fix/Perm Buffer Set. |
| Recommended Use | Reagents for biochemical applications, industrial, commercial. |
| Company | BioLegend |
| Street Address | 9727 Pacific Heights Blvd |
| City, State, Zip, Country | San Diego, CA 92121 |
| Phone | 858-455-9588 |
| Emergency Number | In case of a chemical emergency, spill, fire, or exposure, +1-858-455-9588 (7:00AM – 5:00PM PDT, M-F) |

Section 2 – Hazards Identification

2.1 Hazard Classification

Dermal Sensitization, Category 1
 Eye Damage, Category 1
 Carcinogen, Category 2

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal Word

Danger

Hazard Statement

| | |
|------|--------------------------------------|
| H317 | May cause an allergic skin reaction. |
| H318 | Causes serious eye irritation. |
| H335 | May cause respiratory irritation. |
| H351 | Suspected of causing cancer. |

Precautionary Statement (Prevention)

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|------|--|
| P280 | Wear protective gloves/protective clothing/eye protection/face protection. |
| P262 | Do not get in eyes, on skin, or on clothing. |
| P261 | Avoid breathing dust/fume/gas/mist/vapors/spray. |
| P271 | Use in a well-ventilated area. |
| P264 | Wash thoroughly after handling. |

Precautionary Statements (Response)

P302+P353+P361+P363; P333+P313

If on skin: Immediately wash skin with soap and copious amounts of water. Remove/Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. If skin irritation or a rash occurs: Get medical advice/attention.

P305+P351+P338

If in eyes: Rinse eyes with water for at least 15 minutes. Remove contacts if present and easy to do. Continue rinsing.

P304+P340

If inhaled: Move to fresh air and keep at rest in a position comfortable for breathing.

P301+P330+P331

If swallowed: Rinse mouth. Do NOT induce vomiting.

P308+P311

If exposed or concerned: Call a poison center or doctor/physician.

Precautionary Statements (Storage)

P401

Store from 2-8°C.

P403

Store in a well ventilated place.

Precautionary Statements (Disposal)

P501

Dispose of contents/container to hazardous or special waste collection point.

Section 3 – Composition/Information on Ingredients

| Component | CAS | EINECS | Concentration |
|------------------|------------|-----------|---------------|
| Paraformaldehyde | 30525-89-4 | unlisted | 4% |
| Sodium Azide | 26628-22-8 | 247-852-1 | 0.09% (w/v) |

Section 4 – First Aid Measures

4.1 Description of first aid measures

After inhalation: Move to fresh air. If breathing is difficult seek medical attention.

After skin contact: Wash with soap and copious amounts of water. Remove/Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. If skin irritation or a rash occurs: Seek medical attention.

After eye contact: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the eye lids to ensure thorough rinsing. Seek medical attention.

After swallowing: Wash mouth out with water if person is conscious. Do NOT induce vomiting. Seek medical attention.

Symptoms: Contact may cause skin irritation. Contact may cause eye irritation.

Section 5 – Fire-Fighting Measures

5.1 Suitable extinguishing agents: Extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

5.2 Special hazards caused by the material, its products of combustion or resulting gases: NFPA Class II Combustible Liquid. Dangerous decomposition products include poisonous gases or vapors; formaldehyde. Vapors can form explosive mixture with air. They may also travel to source of ignition. Containers exposed to fire/heat can explode due to pressure. Vapors are sensitive to static electrical discharge.

5.3 Special protective equipment and precautions for fire-fighters: Wear protective clothing and self-contained breathing apparatus for fire response. Remove containers out of range of fire, if can be done without risk. If not, use water spray to keep containers cool. Any contaminated equipment should be rinsed thoroughly with water if exposed.

Hazardous combustion materials: No data available.

Section 6 – Accidental Release Measures

6.1 Personal precautions, protective equipment, and emergency procedures: Small spills can often be handled by personnel with chemical training. For large spills, contact emergency personnel immediately. Evacuate and ventilate area. Use protective clothing, gloves and equipment. Avoid formation of dust/vapor. Avoid inhalation or other contact. Keep unnecessary persons away.

6.2 Environment precautions: Prevent entry into waterways, drains, soil, and sewers.

6.3 Measures for cleaning/collecting: Absorb material with appropriate absorbent material and dispose in appropriate hazardous waste container.

6.4 Additional information:

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

Section 7 – Handling and Storage

7.1 Precautions for safe handling: Do not get on skin, in eyes, on clothing. Do not breathe dust/vapor. Wash thoroughly after handling. Ensure area is adequately ventilated. Toxicogenic and mutagenic. See section 8 for more information.

7.2 Conditions for safe storage, including any incompatibilities: Keep container tightly-sealed. Do not store with strong oxidizing agents, bases, acids, or any water reactive materials. Store from 2-8°C.

Section 8 – Exposure controls/personal protection

8.1 Exposure Limits

Formaldehyde

OSHA PEL

0.75 ppm over an 8-hour shift and 2 ppm during any 15-minute period.

| | |
|---------------------|--|
| NIOSH | REL is 0.016 ppm over an 8-hour shift and 2 ppm during any 15-minute period. |
| ACGIH | TLV is 0.3 ppm. |
| IARC | Group 1 carcinogen. |
| NTP | Suspected carcinogen. |
| Sodium Azide | |
| ACGIH | TLV is 0.29 mg/m ³ Ceiling |
| NIOSH | REL is 0.3 mg/m ³ Ceiling |

8.2 Exposure Controls

Engineering Controls

Use only with adequate (local exhaust) ventilation.

Personal protective equipment

General protective and hygienic measures

Keep away from foodstuffs, beverages, and feed.

Wash hands, face, and exposed forearms/areas after handling.

Wash contaminated clothing before reusing.

Ensure eyewash stations and safety showers are in close proximity to workstation.

Breathing equipment: May use self-contained breathing apparatus; NIOSH/MSHA-approved respirator.

Protection of hands: Chemical resistant gloves.

Eye protection: Face shield (recommended) and safety goggles.

Body protection: Protective work clothing.

Section 9 – Physical and Chemical Properties

| | |
|------------------------------|--------------------------|
| Appearance | Liquid, Colorless, clear |
| Odor | Pungent, fruity |
| Odor Threshold | No Data Available |
| pH | No Data Available |
| Melting point/freezing point | No Data Available |
| Boiling point | No Data Available |
| Flash point | No Data Available |
| Evaporation rate | No Data Available |
| Flammability | No Data Available |
| Upper explosion limit | No Data Available |
| Lower explosion limit | No Data Available |
| Vapor pressure | No Data Available |
| Vapor density | No Data Available |
| Relative density | No Data Available |
| Solubility | Soluble |

| | |
|---------------------------|-------------------|
| Partition coefficient | No Data Available |
| Auto-ignition temperature | No Data Available |
| Decomposition temperature | No Data Available |
| Viscosity | No Data Available |
| Explosive Properties | No Data Available |
| Oxidizing Properties | No Data Available |

Section 10 – Stability and Reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

Avoid excessive heat.

10.5 Incompatible materials

Strong oxidizing agents, bases, acids, or any water reactive materials.

10.6 Hazardous decomposition products

Dangerous decomposition products include poisonous gases or vapors; formaldehyde.

Section 11 – Toxicological Information

| | |
|-----------------------------------|--|
| Routes of Entry | Ingestion, inhalation, skin and eye contact. |
| Acute Toxicity | Oral LD50 (Paraformaldehyde) 800 mg/kg (rat) Oral LD50 (Sodium Azide) 27 mg/kg (rat) |
| Skin Corrosion/Irritation | Irritant |
| Serious eye damage/irritation | Irritant |
| Respiratory or skin sensitization | Irritant |
| Germ cell mutagenicity | Mutagenic effects possible from formaldehyde, the decomposition product of paraformaldehyde. |
| Carcinogenicity | Paraformaldehyde is a suspected carcinogen. |
| Reproductive toxicity | Reproductive effects possible from paraformaldehyde, the decomposition products of paraformaldehyde. |
| STOT-single exposure | No data available |
| STOT-repeated exposure | No data available |
| Aspiration hazard | No data available |

Section 12 – Ecological Information

| | |
|------------------------------------|--|
| Environmental Toxicity | In large volumes, may be harmful to terrestrial life. |
| Aquatic Toxicity | In large volumes, may be harmful to aquatic life |
| Persistence and degradability | Formaldehyde can transfer to rain and water due to solubility. Biodegrades significantly in water within days. |
| Bioaccumulative potential | No Data Available |
| Mobility in soil | Water soluble |
| Results of PBT and vPvT assessment | No data available |

Section 13 – Disposal Considerations

Minimize waste as much as possible.
 Not a RCRA hazardous waste.
 Disposal must be made according to state and federal regulations.

Contaminated packaging (recommended)

Disposal must be made according to state and federal regulations.

Cleaning agent (recommended)

If product is spilled or leaked, collect on absorbent

Section 14 – Transport Information

DOT (Domestic)

| | |
|---------------------------------|---|
| Proper shipping name | Other Regulated Substances, liquid, n.o.s. (formaldehyde, 4%) |
| Hazard class | UN3334, Class 9, Packing group III |
| Reportable quantity | 1000 lbs |
| Marine pollutant | No |
| Poison inhalation hazard | No |

IMDG

Not regulated.

IATA

| | |
|-----------------------------|---|
| Proper shipping name | Other Regulated Substances, liquid, n.o.s. (formaldehyde, 4%) |
| Hazard class | UN3334, Class 9, Packing group III |

Section 15 – Regulatory Information

SARA Section 335 (extremely hazardous substances): Sodium azide and formaldehyde, the decomposition product of paraformaldehyde, is subject to reporting requirements.

SARA Section 313 (specific toxic chemical listing): Sodium azide and formaldehyde, the decomposition product of paraformaldehyde, is subject to reporting requirements. Acute health hazards.

TSCA (Toxic Substances Control Act): Sodium azide and formaldehyde, the decomposition product of paraformaldehyde, is subject to reporting requirements. Acute health hazards.

Paraformaldehyde

Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Sodium Azide

CERCLA Reportable Quantity: 1000 lbs

Formaldehyde

CERCLA Reportable Quantity :100 lbs

California Proposition 65: Formaldehyde is a known carcinogen.

Section 16 – Other information

Revision Date: May 6th, 2013

Only trained personnel should use this material.

To the best of our knowledge, the information contained herein is accurate. However, neither BioLegend, nor any of its subsidiaries assumes any liabilities whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

Department issuing MSDS: Safety & Environment Department

Contact: Technical Service Representative