

## SAFETY DATA SHEET

### 1. Identification

1.1. Product Name	Fixation Buffer
Catalog No.	2704005
1.2. Recommended Use	Research use only
1.3. Supplier Address Telephone, fax, email	SONY BIOTECHNOLOGY INC. 1730 North First Street, San Jose, CA 95112 U.S.A. Voice: +1 800-275-5963, FAX: +1 408-352-4130, SBTcustomerservice@sonybiotechnology.com
1.4. e-mail address of person responsible for this SDS	SBTcustomerservice@sonybiotechnology.com
1.5. Emergency telephone number	In case of a chemical emergency, spill, fire, or exposure US: +1 800-275-5963 (6:00AM – 5:30PM PT, M-F)

### 2. Hazards Identification

#### 2.1. Hazard Classification

Skin Sensitization	Category 1
Serious Eye Damage	Category 1
Carcinogenicity	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 damage.
H351	Suspected of causing cancer.

Precautionary statement (Prevention)

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P272	Contaminated work clothing should not be allowed out of the workplace.

## Precautionary Statements (Response)

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P310 Immediately call a POISON CENTER or doctor/physician.

## Precautionary Statements (Storage)

P405 Store locked up.

## Precautionary Statements (Disposal)

P501 Dispose of contents/container to hazardous or special waste collection point.

**3. Composition/Information on Ingredients**

3.1. Component Paraformaldehyde

CAS 30525-89-4

EINECS unlisted

Concentration 4%

**4. First Aid Measures**

## 4.1. Description of first aid measures

General Advice Move out of dangerous area. Consult a physician. Show this safety data sheet to the doctor in attendance.

After inhalation Move to fresh air. If not breathing, give artificial respiration. Consult a physician.

After skin contact Wash with soap and copious amounts of water. Consult a physician.

After eye contact Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the eye lids to ensure thorough rinsing. Consult a physician.

After swallowing Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

**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.

5.4. Hazardous combustion materials No data available.

**6. Accidental Release Measures**

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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 proper respirator. 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 absorbent inert material, and dispose of 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.

**7. Handling and Storage**

7.1. Information 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.

**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.

## 8.2. Exposure Controls

Engineering Controls	Use only with adequate (local exhaust) ventilation.
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## 8.3. 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.
Hand protection	Chemical resistant gloves.
Eye protection	Face shield (recommended) and safety goggles.
Body protection	Protective work clothing.

**9. Physical and Chemical Properties**

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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

## 10. Stability and Reactivity

10.1. Reactivity	No data available
10.2. Chemical stability	Stable when stored 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.

## 11. Toxicological Information

### 11.1. Information on toxicological effects

Routes of Entry	Ingestion, inhalation, skin and eye contact.
Acute Toxicity	Oral LD50 (Paraformaldehyde) 800 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 formaldehyde.
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

### 11.2. Potential health effects

Inhalation	May be toxic in inhaled. Causes respiratory tract irritation.
Ingestion	Harmful if swallowed.
Skin	Harmful if absorbed through skin. Causes skin irritation.
Eyes	Causes eye irritation.
11.3 Signs and Symptoms of Exposure	May cause irreversible eye damage.
<b>12. Ecological Information</b>	
12.1. Environmental Toxicity	In large volumes, may be harmful to terrestrial life.
12.2. Aquatic Toxicity	In large volumes, may be harmful to aquatic life.
12.3. Persistence and degradability	Formaldehyde can transfer to rain and water due to solubility. Biodegrades significantly in water within days.
12.4. Bioaccumulative potential	No data available
12.5. Mobility in soil	Water soluble
12.4. Results of PBT and vPvT assessment	No data available
<b>13. Disposal Considerations</b>	
13.1. Disposal methods	Minimize waste as much as possible. Not a RCRA hazardous waste. Disposal must be made according to state and federal regulations.
13.2. Contaminated packaging (recommended)	Disposal must be made according to state and federal regulations.
13.3. Cleaning agent (recommended)	If product is spilled or leaked, collect on absorbent
<b>14. Transport Information</b>	
DOT (Ground)	Not regulated
IMDG	Not regulated
IATA	Not regulated
ADR	Not regulated
ADN	Not regulated
RID	Not regulated
<b>15. Regulatory Information</b>	
15.1. SARA Section 335 (extremely hazardous substances): Formaldehyde, the decomposition product of paraformaldehyde, is subject to reporting requirements.	
SARA Section 313 (specific toxic chemical listing): Formaldehyde, the decomposition product of paraformaldehyde, is subject to reporting requirements. Acute health hazards.	
TSCA (Toxic Substances Control Act): 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.
Formaldehyde	CERCLA Reportable Quantity: 100 lbs California Proposition 65: Formaldehyde is a known carcinogen.

## 16. Other Information

Revision Date	September 10, 2013
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This SDS was created in good faith based on our current knowledge at the time of creation and revision, but no warranty is made on the information, hazards, and toxicity data described. Prior to use, be sure to examine the latest information, rules, laws, and regulations of your country or region concerning hazards and harmful effects as well as regarding equipment to be used, and accord the highest priority to them.

The precautions described in this document assume normal handling of the product. When handling the product in an unconventional manner, be sure to take appropriate safety measures according the situation and take sufficient precautions.

All chemical products should be handled assuming the presence of "unknown hazards and harmful effects" and with the knowledge that such hazards will vary greatly depending on the usage environment, handling method, and conditions and period of storage. All handling of the product, including use, unpacking, storage, and disposal, should be performed only by specialists with professional knowledge and experience or under close supervision of such qualified specialists.

It is the sole responsibility of the user to ensure and provide proper safe use conditions.

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