

SAFETY DATA SHEET

1. Identification

1.1. Product Name	RBC Lysis/Fixation Solution (10X)
Catalog No.	2712005
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. Target Organs	Eyes, Kidneys, Liver, Heart
--------------------	-----------------------------

2.2. Hazard Classification

Acute Toxicity, Oral	Category 4
Acute Toxicity, Inhalation	Category 4
Skin Corrosion	Category 1B
Serious Eye Damage	Category 1
Skin Sensitization	Category 1
Carcinogenicity	Category 2
Specific Target Organ Toxicity – Single Exposure	Category 1

2.3. GHS Label elements, including precautionary statements

Pictogram



Signal word Danger

Hazard statement

H302	Harmful if swallowed.
H332	Harmful if inhaled.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H370	Causes damage to organs.

SAFETY DATA SHEET

RBC Lysis/Fixation Solution (10X)

Page 2 of 6

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.
------	---

P260	Do not breathe dust/gas/mist/vapours/spray.
------	---

P264	Wash hands thoroughly after handling.
------	---------------------------------------

P270	Do not eat, drink, or smoke when using this product.
------	--

P271	Use only outdoors or in a well-ventilated area.
------	---

P272	Contaminated work clothing should not be allowed out of the workplace.
------	--

P280	Wear protective gloves/protective clothing/eye protection/face protection.
------	--

Precautionary Statements (Response)

P363	Wash contaminated clothing before reuse.
------	--

P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
----------------	--

P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
-----------	--

P301+P330 +P331	F SWALLOWED: Rinse mouth. Do NOT induce vomiting.
-----------------	---

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

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	Formaldehyde
----------------	--------------

CAS	50-00-0
-----	---------

EINECS	200-001-8
--------	-----------

Concentration	9.8%
---------------	------

3.2 Component	Diethylene Glycol
---------------	-------------------

CAS	111-46-6
-----	----------

EINECS	203-872-2
--------	-----------

Concentration	30%
---------------	-----

4. First Aid Measures

SAFETY DATA SHEET

RBC Lysis/Fixation Solution (10X)

Page 3 of 6

4.1. Description of necessary first aid measures

General Advice	Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
After inhalation	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
After skin contact	Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.
After eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Continue rinsing eyes during transport to hospital.
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. 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 products	No data available.

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.

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	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

SAFETY DATA SHEET

RBC Lysis/Fixation Solution (10X)

Page 4 of 6

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.
----------------------	---

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

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.
---------------------------	-----------------------

SAFETY DATA SHEET

RBC Lysis/Fixation Solution (10X)

Page 5 of 6

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**

Acute Toxicity	Oral LD50 (Formaldehyde)	42 mg/kg (rat)
	Oral LD50 (Diethylene Glycol)	12,565 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

Carcinogenicity Formaldehyde is a suspected carcinogen.

Reproductive toxicity Reproductive effects possible from formaldehyde, the decomposition products of formaldehyde.

STOT-single exposure No data available

STOT-repeated exposure No data available

Aspiration hazard No data available

11.2. Potential health effects

Inhalation: Harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

Ingestion Harmful if swallowed.

Skin Toxic if absorbed through skin. Causes skin burns.

Eyes Causes eye burns.

11.3 Signs and Symptoms of Exposure Gastrointestinal disturbance. Material is destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. Cough, wheezing, laryngitis, shortness of breath, headache, nausea, vomiting, pulmonary edema. Effects may be delayed. To be of our knowledge, the chemical and physical, and toxicological properties have not been thoroughly investigated.

12. Ecological Information

12.1. Environmental Toxicity In large volumes, may be harmful to terrestrial life.

12.2. Aquatic Toxicity Water hazard class 2. 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

13. Disposal Considerations

SAFETY DATA SHEET

RBC Lysis/Fixation Solution (10X)

Page 6 of 6

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

14. Transport Information

DOT (Ground)	Not regulated
IMDG	Not regulated
IATA	Not regulated
ADR	Not regulated
ADN	Not regulated
RID	Not regulated

15. Regulatory Information

15.1. Product related hazard information	SARA Section 335 (extremely hazardous substances): Formaldehyde is subject to reporting requirements. SARA Section 313 (specific toxic chemical listing): Formaldehyde, is subject to reporting requirements. Acute health hazards. TSCA (Toxic Substances Control Act): Formaldehyde and Diethylene Glycol are subject to reporting requirements. Acute health hazards.
--	--

Formaldehyde

CERCLA Reportable Quantity	100 lbs
California Proposition 65	Formaldehyde is a known carcinogen.

16. Other Information

Revision Date	September 10, 2013
---------------	--------------------

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 to 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.

©2016 Sony Biotechnology Inc. All rights reserved. Sony, and the Sony logo, are trademarks of Sony Corporation. All other trademarks are property of their respective owners. For non-clinical research use only. Not for use in diagnostic or therapeutic procedures, or for any other clinical purpose.

2.11.123015.1