

Safety Data Sheet

LIFELINE CELL TECHNOLOGY SAFETY DATA SHEET

SECTION 1 – PRODUCT AND COMPANY INFORMATION

Product Name: 4% Paraformaldehyde Fixative Solution

Product Number: CM-0055

Company Address: Lifeline Cell Technology
8415 Progress Drive, Suite T
Frederick, MD 21701

Technical Phone: (877) 845-7787

Fax: (443) 393-0393

Emergency Phone: (877) 845-7787

Product use: Cell testing reagent

SECTION 2 – HAZARDS IDENTIFICATION

Hazard Identification:

GHS Classification

Flammable liquids (Category 4), H227
Acute toxicity, Oral (Category 4), H302
Skin irritation (Category 2), H315
Serious eye damage (Category 1), H318
Skin sensitization (Category 1), H317
Carcinogenicity (Category 1A), H350
Specific target organ toxicity – single exposure (Category 1), H370

GHS Label elements including precautionary statements:



Pictograms:

Signal word: Danger

Hazard statements

H227 Combustible liquid
H302 Harmful if swallowed
H315 Causes skin irritation
H317 May cause allergic skin reaction
H318 Causes serious eye damage
H350 May cause cancer
H370 Causes damage to organs

Precautionary statements

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking
P260 Do not breathe dust/fume/gas/mist/vapours/spray.

Safety Data Sheet

P264	Wash skin thoroughly after handling
P270	Do not eat, drink or smoke when using this product
P272	Contaminated work clothing should not be allowed out of the workplace
P280	Wear protective gloves/protective clothing/eye protection/face protection
P281	Use personal protective equipment as required.
P301+P312+P330	If swallowed: Call a poison center or doctor/physician if you feel unwell, rinse mouth
P302+P352	If on skin: Wash with plenty of soap and water.
P305+P351+P338+P310	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call poison center or doctor/physician.
P307+P311	If exposed: Call a Poison Center or doctor/physician.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention
P362	Take off contaminated clothing and wash before reuse.
P370+P378	In case of fire: Use dry sand, dry chemical or alcohol resistant foam for extinction.
P403+P235	Store in well ventilated place. Keep cool.
P405	Store locked up
P501	Dispose of contents/container to an approved waste disposal plant

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Principal Components:	Formaldehyde	CAS number:	50-00-0
	Water	CAS number:	7732-18-5

Composition: The subject formulation is a buffered solution of formaldehyde in water. Other than formaldehyde and water all components are less than 1% in concentration.

Hazardous components:

Formaldehyde:	CAS #: 50-00-0	EC #: 200-001-8	Index #: 605-001-00-5
	Concentration: 1-5%		
	Classification:	Flam. Liq. 4; Acute Tox. 3; Skin Corr. 1B; Eye Dam. 1; Skin Sens. 1; Carc. 1; Aquatic Acute 3; Aquatic Chronic 2; H227, H301+H311+H331, H314, H317, H318, H351, H402	

Synonym: N/A

SECTION 4 – FIRST AID MEASURES

First aid measures in case of exposure:

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

If Inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Oral Exposure: If swallowed, rinse out mouth with water provided person is conscious. Call a physician. Do not induce vomiting.

Dermal Exposure: In case of contact with skin, wash off with soap and water. Take victim immediately to hospital. Consult a physician.

Eye Exposure: In case of contact with eyes, flush with copious amounts of water for at least 15 minutes and consult a physician.

Safety Data Sheet

Most important symptoms and effects, acute or delayed: Refer to section 2 for most important symptoms and effects, acute or delayed.

Recommendations for immediate medical care or treatment: Seek immediate medical assistance if any symptoms described in section 2 are present after exposure or suspected exposure to this product.

SECTION 5 – FIRE FIGHTING MEASURES

General Fire hazard: Formaldehyde in solution and vapor form is flammable. Use water spray, alcohol resistant foam, dry chemical or carbon dioxide. Poisonous gases are released in a fire. Use water spray to reduce vapors. Containers may explode in a fire. Carbon oxides may be released in a fire.

Extinguishing media: Use water spray, alcohol resistant foam, dry chemical or carbon dioxide.

Advice for Firefighters: Wear self-contained breathing apparatus.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal Precautions and Protective Equipment: Use personal protective equipment. Avoid breathing mist, vapors or gas. Ensure adequate ventilation. Evacuate personnel to a safe location in case of accidental release. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas. Refer to section 8 for appropriate personal protection.

Environmental Precautions: Prevent leakage or spillage into the environment. Do not let product enter into drains.

Methods for Clean Up: Use personal protective equipment when cleaning spilled product. Absorb liquid with absorbent material and then place in a closed container for hazardous waste disposal. Wash spill site after liquid cleanup is complete with cleansers appropriate for the spill site surface material.

SECTION 7 – HANDLING AND STORAGE

Precautions for Handling: Avoid contact with skin and eyes. Avoid inhalation of vapors or mist. Keep away from sources of ignition – No Smoking. Refer to section 2 for precautionary statements..

Storage: Keep container tightly closed and store frozen (-20° C) and in the upright position. Storage class (TRGS 510): Combustible liquids.

Safety Data Sheet

SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

Components with workplace control parameters:

Component	CAS#	Value	Control Parameters	Basis
Formaldehyde	50-00-0	C	0.300000 ppm 0.800000 mg/m ³	USA ACGIH Threshold Limit Values (TLV)
	Remarks	Upper Respiratory Tract irritation Eye irritation Suspected human carcinogen Sensitizer		
		TWA	0.016000 ppm	USA NIOSH Recommended Exposure Limits
		Potential Occupational Carcinogen See appendix A		
		C	0.100000 ppm	USA NIOSH Recommended Exposure Limits
		Potential Occupational Carcinogen See appendix A 15 minute ceiling value		
		Substance listed; for more information see OSHA document 1910.1048		
		PEL	0.750000 ppm	OSHA Specifically Regulated Chemicals/Carcinogens
		1910.1048 This standard applies to all occupational exposures to formaldehyde, i.e. from formaldehyde gas, its solutions, and materials that release formaldehyde. OSHA specifically regulated carcinogen		
		STEL	2.000000 ppm	OSHA Specifically Regulated Chemicals/Carcinogens
		1910.1048 This standard applies to all occupational exposures to formaldehyde, i.e. from formaldehyde gas, its solutions, and materials that release formaldehyde. OSHA specifically regulated carcinogen		

Engineering Controls: Handle with good industrial hygiene and safety practices. Wash hands before breaks and at the end of the workday.

Personal Protective Equipment:

Respiratory: Where risk assessment shows air-purifying respirators are appropriate use a full –face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. Avoid breathing fumes and limit exposure time.

Hand: Chemical resistant gloves required.

Eye: Safety glasses or goggles required.

Clothing: Laboratory coat required.

General Hygiene Measures: Wash hands thoroughly after handling.

Safety Data Sheet

SECTION 9 – PHYSICAL / CHEMICAL PROPERTIES

Appearance: Frozen, liquid

Upper/lower flammability or Explosive limits: No data available

Odor: No data available

Vapor pressure: No data available

Odor threshold: No data available

Vapor density: 53 hPa (40 mm Hg) at 39° C (102° F)

pH: No data available

Relative density: No data available

Freezing point: No data available

Solubility: Soluble in water

Boiling point: No data available

Flash point: 85° C (185° F)

Evaporation rate: No data available

Flammability: Not flammable

Upper/lower flammability or explosive limits:
Upper explosion limit: 70% (V)
Lower explosion limit: 7% (V)

Partition coefficient: n-octanol/water: No data available

Auto-ignition temperature: No data available

Viscosity: No data available

SECTION 10 – STABILITY AND REACTIVITY

Reactivity: No data available

Chemical stability: Stable under recommended storage and usage conditions.

Possible hazardous reactions: No data available

Conditions to be avoided: Heat, flames and sparks.

Incompatible materials: Strong bases, acids, oxidizing agents, alkali metals, amines, acid chlorides, acid anhydrides, reducing agents, peroxides, isocyanates, phenol and aniline.

Hazardous decomposition products: Carbon oxides may be released in a fire. See section 5.

SECTION 11 – TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity: No data available

Skin corrosion/irritation: No data available

Serious eye damage/irritation: No data available

Respiratory or Skin sensitization: No data available

Germ Cell mutagenicity: No data available

Carcinogenicity

NTP: Known to be a human carcinogen (Formaldehyde)

IARC: 1 – Group 1: Carcinogenic to humans (Formaldehyde)

OSHA: OSHA specifically regulated carcinogen (Formaldehyde)

Reproductive toxicity: No data available

Specific target organ toxicity – single exposure: No data available

Specific target organ toxicity – repeated exposure: No data available

Aspiration hazard: No data available

Safety Data Sheet

Additional Information:

RTECS: Not available

Liver – irregularities – Based on human evidence (Formaldehyde)

SECTION 12 – ECOLOGICAL INFORMATION

Toxicity: No data available

Persistence/Degradability: No data available

Bioaccumulation Potential: No data available

Mobility in Soil: No data available. Expected to be mobile in soil due to high solubility in water.

SECTION 13 – DISPOSAL CONSIDERATIONS

Appropriate disposal of product: This combustible material may be burned in a chemical incinerator equipped with an afterburner or scrubber. Contact a licensed professional waste disposal service to dispose of surplus material.

Appropriate disposal containers: Follow procedure for unused product.

SECTION 14 – TRANSPORT INFORMATION

DOT: NA-Number: 1993 Class: NONE Packaging group: III
Proper shipping name: Combustible liquid, n.o.s. (Formaldehyde)
Reportable Quantity (RQ): 2500 lbs

Poison Inhalation Hazard: No

IMDG: Not dangerous goods

IATA: Not dangerous goods

SECTION 15 – REGULATORY INFORMATION

SARA 302 Components: The following componentst are subject to SARA Title III, Section 302:

Formaldehyde CAS number: 50-00-0 Revision date: 2007-07-01

SARA 313 Components: The following componentst are subject to SARA Title III, Section 313:

Formaldehyde CAS number: 50-00-0 Revision date: 2007-07-01

SARA 311/312 Hazards: Fire Hazard, Acute health hazard, Chronic health hazard

Massachusetts Right to Know Components:

Formaldehyde CAS number: 50-00-0

Pennsylvania Right to Know Components:

Formaldehyde CAS number: 50-00-0

Water CAS number: 7732-18-5

Safety Data Sheet

New Jersey Right to Know Components:

Formaldehyde CAS number: 50-00-0

California Prop. 65 Components: WARNING! This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Formaldehyde CAS number: 50-00-0

SECTION 16 – OTHER INFORMATION

HMIS Rating:

Health hazard: 3
Chronic health hazard: *
Flammability: 2
Physical hazard: 0

NFPA Ratings:

Health hazard: 3
Fire hazard: 2
Reactivity hazard: 0

Preparation information:

Prepared by: Quality Department
Date Prepared: April 9, 2015
Replaced Version date: July 30, 2012

Disclaimer: This information is furnished without warranty, expressed or implied, except that it is accurate to the best knowledge of Lifeline Cell Technology. The data on this sheet relate only to the specific materials designated herein and shall only be used as a guide. Lifeline Cell Technology assumes no legal responsibility for the use or reliance upon these data.