SAFETY DATA SHEET

1 – PRODUCT AND COMPANY IDENTIFICATION

Product Name: **FORMALIN 10% Neutral Buffered**

Product code: F-5010

Product use: For laboratory or industrial use only

Supplier: Cochimbec Inc.
8561 chemin Dalton
Town of Mount-Royal, Québec
H4T 1V5 CANADA

Telephone: 514-990-1935
Emergency Telephone: (CANUTEC): 613-996-6666

2 – HAZARDS IDENTIFICATION

GHS Classification: Skin corrosion / Skin irritation (Category 2)
Serious eye damage / Eye irritation (Category 1)
Skin sensitization (Category 1)
Germ Cell Mutagenicity (Category 2)
Carcinogenicity (Category 1B)
Specific target organ toxicity – single exposure (Category 1) Central nervous system, respiratory system.
Specific target organ toxicity – repeated exposure (Category 2) Kidney, Liver, Spleen, Blood

Signal word:		**Danger**
Hazard statement:	H302	Harmful if swallowed.
	H315	Causes skin irritation.
	H317	May cause an allergic skin reaction.
	H318	Causes serious eye damage.
	H341	Suspected of causing genetic defects
	H350	May cause cancer
Precautionary statement:	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 / vapours / spray.
	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.
	P301 + P312 + P330	IF SWALLOWED: Call a POISON CENTER / Doctor if you feel unwell. Rinse mouth.
	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 advise/attention.
	P333 + P313	If skin irritation or rash occurs. Get medical advise/attention.
Other hazards:	Inhalation:	May be harmful if inhaled. Extremely irritating to mucous membranes and upper respiratory tract.
	Eyes:	Causes severe eye irritation.
	Skin:	Causes irritation on open wound.
	Ingestion:	Harmful if swallowed.

3 – COMPOSION / INFORMATION ON INGREDIENTS

Synonyms: **Formol**

INGREDIENT	**Concentration**	**CAS No.**	**EC No.**	**Index No.**
FORMALDEHYDE	3.5 – 4.0 %	50-00-0	200-001-8	605-001-00-5
METHANOL	1.0 - 1.5 %	67-56-1	200-659-6	603-001-00-X
SODIUM PHOSPHATE DIBASIC	<1 %	7558-79-4	231-448-7	-
SODIUM PHOSPHATE MONOBASIC	<1 %	7558-80-7	231-449-2	-
WATER	~90 %	7732-18-5	231-791-2	-

4 – FIRST AID MEASURES

Inhalation:	Move victim to fresh air. If victim is not breathing, give artificial respiration and call for medical assistance.
Skin contact:	Wash with soap and water. Consult a physician if irritation persists.
Eye contact:	Rinse thoroughly with water for 15 minutes. If irritation persists, continue rinsing and consult physician.
Ingestion:	DO NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
Most important symptoms / effects	Breathing difficulties. May cause central nervous system depression. Symptoms of overexposure or inhalation of high vapour concentration may cause headache, and nausea.

5 – FIRE-FIGHTING MEASURES

Extinguishing media:	Water spray, alcohol resistant foam, dry chemical, carbon dioxide. Use water spray to cool unopened containers.
Combustion Exposure Hazards:	Hazardous decomposition products formed under fire condiiotions: Carbon Oxides.
Fire-Fighting equipment and precaution:	Wear self-contained breathing apparatus for firefighting if necessary.
Sensitivity to mechanical impact:	Not sensitive.
Sensitivity to static discharge:	N / D

NFPA **Risk** **0=Low** **4=High**	HEALTH	FLAMMABILITY	REACTIVITY	HAZARDS
	2	**0**	**0**	

6 – ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Use personal protective equipment. Avoid inhaling vapour or mist. Use adequate ventilation. Evacuate people to safe areas.
Environmental Precautions:	Prevent further leakage or spillage using personal protection. Avoid product entering into drains.
Method & Material for containment and cleaning up:	Contain and collect spillage using an antistatic vacuum or product may be wet-brushed and placed in a container for disposal according to local, state and federal regulations.

7 – HANDLING AND STORAGE

Precautions for safe handling:	Wear personal protective equipment. Do not get on skin or eyes. Do not breath vapours or mist.
Conditions for Safe Storage:	Store in a cool, dry and well ventilated place away from incompatibles. Keep container tightly closed.

8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

COMPONENTS WITH WORKPLACE CONTROL PARAMETERS

COMPONENT	CAS-No	VALUE	CONTROL PARAMETERS	BASIS
Formaldehyde	50-00-0	Ceiling	0.3 ppm	ACGIH
		VECD	2 ppm	OSHA – PEL
		MPTL	0.75 ppm	OSHA – PEL
		IDLH	20 ppm	NIOSH
		TWA	0.016 ppm	NIOSH
		Ceiling	0.1 ppm	NIOSH
		Ceiling	2 ppm 3 mg/m^3	Quebec & Mexico OEL
		STEL	1.0 ppm	Ontario TWAEV

		CEV	1.5 ppm	Ontario TWAEV
Methanol	67-56-1	TWA	200 ppm	USA. ACGIH (TLV)
		STEL	250 ppm Skin	USA. ACGIH (TLV)
		TWA	200 ppm	USA. OSHA – PEL
		STEL	260 mg/m^3	USA. OSHA – PEL
		IDLH	6000 ppm	NIOSH
		TWA	200 ppm 260 mg/m^3	NIOSH - Quebec
		STEL	250 ppm 325 mg/m^3	NIOSH - Quebec
		TWA	200 ppm	Ontario - Mexico OEL
		STEL	250 ppm	Ontario - Mexico OEL

Eye Protection:	Use safety glasses or face mask.
Hand Protection:	Use appropriate gloves.
Body Protection:	Use impervious clothes as well as a flame retardant and antistatic apron.
Respiratory Protection:	Where risk assessment shows air-purifying respirators are appropriate, use a full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face air respirator. Use NIOSH (US) or CEN (EU) approved respirators.
Engineering Controls:	Use with adequate ventilation or fume hood.

9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid.	**Auto ignition temperature:**	N / D
Color:	Colourless	**Upper Explosion Limit:**	N / D
Odour:	Formaldehyde-like	**Lower Explosion Limit:**	N / D
Odour threshold::	N / D	**Vapour pressure:**	N / D
pH:	7	**Vapour density: (air = 1)**	N / D
Melting point:	N / D	**Relative density**	1.08
Boiling point:	100°C @ 760 mm Hg	**Water solubility:**	Completely soluble
Boiling range:	N / D	**Decomposition temperature:**	N / D
Density	1.08 g/mL @ 25°C	**Refractive Index:**	N / D
Flash point:	>93.3 °C	**Viscosity:**	N / D
Evaporation rate: (n-Butyl Acetate = 1)	~1	**Partition coeficient: n-octanol / water**	N / D

10 – STABILITY AND REACTIVITY

Chemical stability:	Stable under recommended storage conditions.
Possibility of hazardous reactions:	N / D
Conditions to avoid:	Incompatible materials.

Incompatible materials:	Strong bases, strong acids, oxidizing agents, alkaline metals, amines, acid chlorides, acid anhydrides, reducing agents, peroxides, isocyanates, phenol, aniline.
Hazardous decomposition products:	Hazardous decomposition products formed under fire conditions: Carbon Oxides.

11 – TOXICOLOGICAL INFORMATION

COMPONENTS	LD_{50} ORAL	LD_{50} DERMAL	LC_{50} INHALATION
FORMALDEHYDE	500 mg/kg (rat)	270 mg/kg (rabbit)	0.578 mg/L 4 h (rat)
METHANOL	6200 mg/kg (rat)	15800 mg/kg (rabbit)	83 mg/L 4 h (rat), 64000 ppm 4 hr.
Skin Corrosion / irritation	Causes skin irritation		
Serious eye damage / eye irritation	Causes severe eye damage		
Respiratory or skin sensitisation	No data available.		
Germ cell Mutagenicity	No data available.		
Carcinogenicity	This product contains a compound listed by NTP, IARC, ACGIH or EPA classified as a carcinogen.		
Reproductive toxicity	No data available		
Teratogenicity	No data available		
Aspiration hazard	No data available		
Symptoms of Exposure	Methanol may be fatal or cause blindness if swallowed. Ingestion effects may include: nausea, vertigo, digestive problems, weakness, disorientation, drowsiness, loss of consciousness, may cause convulsions.		
Synergistic effects	No data available		
Addition information	No data available		

12 – ECOLOGICAL INFORMATION

COMPONENTS	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates	Toxicity to algea
Formalin	No data available	No data available	No data available
Persistence and degradability	No data available		
Bioaccumulative potential	No data available		
Mobility in soil	Mobile in the soil environment due to its solubility in water.		
PBT and vPvB assessment	No data available		
Other adverse effects	No data available		

13 – DISPOSAL CONSIDERATIONS

Product	Burn in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.
Contaminated clothing	Wash before reusing clothes.
Contaminated packaging	Dispose as unused product above.

14 – TRANSPORT INFORMATION

	TDG	IMDG	IATA
Shipping Name:	N / A	N / A	N / A

15 – REGULATORY INFORMATION

US Regulations	SDS complies with OSHA's Hazard Communication Rule 29, CFR 1910.1200 Target Organ Effect, Irritant.
Canada Classification	Canada WHMIS: Class D-2A: Very toxic material causing other toxic effects. Class D-2B: Toxic material causing other toxic effects.
International	No data available

16 – OTHER INFORMATION

Information on the preparation of SDS:	Prepared by Cochimbec Inc. Safety Personnel March 20, 2018 Revision 3 I.C. 1,2,7,20
Abbreviations:	ACGIH = American Conference of Governmental Industrial Hygienists ASTM = American Society for Testing and Materials BCF = Bioconcentration Factor CAS = Chemical Abstract Services CCOHS = Canadian Center for Occupational Health & Safety CEN (EU) = Committée Européen de Normalisation CERCLA = Comprehensive Environmental Response Compensation & Liability Act CFR = Code of Federal Regulations CMR = Carcinogenic-mutagenic-toxic for reproduction CPR = Controlled Products Regulations DIN = German Institute for Standardisation DOT = Department of Transport EC_{50} = Half maximal effect concentration EINECS = European Inventory of Existing Commercial Chemical Substances GHS = Global Harmonization System GLP = Good Laboratory practice

	GMO = Genetic Modified Organism IARC = International Agency for research on Cancer IATA = International Air Transport Association ISO = International Organisation for Standardisation IDLH = Immediate danger to life and health IMDG = International Maritime Dangerous Goods LC_{50} = Lethal concentration causing 50% death LD_{50} = Lethal dose causing 50% death LOAEL = Lowest Observed Adverse Effect Level LOEL = Lowest Observed Effect Level N/A = Not Applicable N/D = No Data N/E = Not Established NFPA = National Fire Protection Association NIOSH = National Institute for Occupational Safety & Health NTP = National Toxicology Program OECD = Organisation for Economic Co-operation & Development OEL = Occupational exposure limit OHSC = Occupational health & safety council (committee) OSHA = Occupational Safety & Health Administration PBT = Persistent, Bioaccumulation, Toxic PEL = Permissible Exposure Limit RCRA = Resource Conservation & Recovery Act RTECS = Registry of Toxic Effects of Chemical Substances SARA = Species at Risk Act STEL = Short term exposure limit STEV = Short term exposure value STOT = Specific Target Organ Toxicity TDG = Transport of Dangerous Goods TLV = Threshold limit value TMD = Transport de Matières Dangereuses TSCA = Toxic Substance Control Act TWA = Time weighted Average TWAEV = Time weighted average exposure value UN = United Nations VOC = Volatile Organic Compounds WEEL = Workplace Environment Exposure Limit WHO = World Health Organisation WHMIS = Workplace Hazardous Material Information System W/V = Weight / Volume W/W = Weight / Weight

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End of Safety Data Sheet