

## SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** Formalin Concentrate Buffered**SYNONYMS:** Buffered Formalin Concentrate 5**CATALOG CODES:** VFC**MANUFACTURER:** Volu-Sol**ADDRESS:** 5095 West 2100 South  
Salt Lake City, UT 84120**EMERGENCY PHONE:** (800) 535-5053**OTHER CALLS:** (801) 974-9474**FAX:** (801) 974-9553**CHEMICAL FAMILY:** -**CHEMICAL FORMULA:** -**PREPARED BY:** Volu-Sol**RECOMMENDED USE:** Laboratory chemical**RESTRICTIONS ON USE:** Use as recommended

## SECTION 2: HAZARD(S) IDENTIFICATION

**EMERGENCY OVERVIEW:**

<b>GHS Classification:</b>	Flammable Liquids	(Category 4)
	Acute Toxicity, Oral	(Category 3)
	Acute Toxicity, Inhalation	(Category 3)
	Acute Toxicity, Dermal	(Category 3)
	Skin corrosion	(Category 1B)
	Serious eye damage	(Category 1)
	Skin sensitisation	(Category 1)
	Germ cell mutagenicity	(Category 2)
	Carcinogenicity	(Category 1A)
	Acute aquatic toxicity	(Category 3)
	Specific target organ toxicity	(Category 1)
	Single Exposure	

**GHS LABEL ELEMENTS:****Pictogram:****Signal Word:****Hazard Statement(s):**

H227	Combustible liquid
H301+H311+H331	Toxic if swallowed, in contact with skin or if inhaled
H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H341	Suspected of causing genetic defects
H350	May cause cancer
H370	Causes damage to organs
H402	Harmful to aquatic life

**Precautionary Statement(s):**

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
P264	Wash skin 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
P273	Avoid release to the environment
P280	Wear protective gloves/ eye protection/ face protection
P301+P310+P330	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340+P310	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician

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 a 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+P233	Store in a well-ventilated place. Keep container tightly closed
P403+P235	Store in a well-ventilated place. Keep cool
P405	Store locked up
P501	Dispose of contents/container to an approved waste disposal plant

**OTHER HAZARDS:** -**HMIS Classification:****Health hazard:** 3**Chronic health hazard:** -**Flammability:** 2**Physical hazards:** 0**NFPA Rating:****Health hazard:** 3**Fire:** 2**Reactivity Hazard:** 0

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT	CAS NO. EC-NO. Index-NO.
Formaldehyde (30-50%)	50-00-0 200-001-8 605-001-00-5
Methanol (10-20%)	67-56-1 200-659-6 603-001-00-X

## SECTION 4: FIRST AID MEASURES

**INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Consult a physician**INGESTION:** If swallowed, vomiting may occur spontaneously, but DO NOT INDUCE. If vomiting occurs, keep head below hips to prevent aspiration into lungs. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician**SKIN:** Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician**EYE:** Continue rinsing eyes during transport to hospital. Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician

## SECTION 5: FIRE-FIGHTING MEASURES

<b>FLAMMABLE LIMITS IN AIR:</b>	<b>Percentage by Volume</b>
	Upper: -%
	Lower: -%

**FLASH POINT:** -**AUTOIGNITION TEMPERATURE:** -**EXTINGUISHING MEDIA:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide**FIRE FIGHTING PROCEDURES:** In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode**FIRE AND EXPLOSION HAZARDS:** Use water spray to cool unopened containers

## SECTION 6: ACCIDENTAL RELEASE MEASURES

**ACCIDENTAL RELEASE MEASURES:** Use personal protective equipment. Avoid breathing vapours, mist, or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations. Dispose of in accordance with local regulations. US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The number to contact the US Coast Guard National Response Center is (800) 424-8802

#### SECTION 7: HANDLING AND STORAGE

**HANDLING AND STORAGE:** Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Use explosion-proof equipment. Keep away from sources of ignition. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Containers of this material may be hazardous when empty since they retain product residues (vapours, liquid); observe all warnings and precautions listed for the product. Take measures to prevent the buildup of electrostatic charge. No smoking

**INCOMPATIBILITIES:** -

#### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**EXPOSURE LIMITS:** Reported in a time-weighted average (TWA)

Component	CAS-No.	Reference	OSHA		ACGIH	
			ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
Formaldehyde	50-00-0		.75 PEL		.3 TLV	
Methanol	67-56-1		200 PEL	260 PEL	200 TLV	260 TLV

**VENTILATION SYSTEM:** Local and/or general exhaust is recommended to keep exposure below limits. Local exhaust ventilation is preferred for control of the emissions at its source, preventing dispersion into the general work area. Please refer to the ACGIH document, *Industrial Ventilation: A Manual of Recommended Practices*, for details

**PERSONAL RESPIRATORS:** If exposure limit is exceeded and engineering controls are not feasible, a half-face organic vapour respirator may be worn for up to ten times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier; whichever is lowest. A full-face piece organic vapour respirator may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. For emergencies or instances where the exposure levels are not known, use a full-face, positive-pressure, air-supplied respirator. **WARNING:** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres

**SKIN PROTECTION:** Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact. Use proper glove removal technique to avoid skin contact with this product. Wash and dry hands  
**EYE PROTECTION:** Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area

#### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

**APPEARANCE:** liquid, clear  
**ODOR:** -  
**SOLUBILITY:** -  
**pH:** -  
**BOILING POINT:** -  
**MELTING POINT:** -  
**VAPOR PRESSURE:** 69 hPa (52 mmHg) at 37°C (99°F)  
**SPECIFIC GRAVITY:** -  
**MOLECULAR WEIGHT:** -  
**DENSITY:** -  
**VISCOSITY:** -  
**REFRACTIVE INDEX:** -

#### SECTION 10: STABILITY AND REACTIVITY

**CHEMICAL STABILITY:** Stable under recommended conditions of use and storage

**CONDITIONS TO AVOID:** Heat, flames, ignition sources

**HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:** No data available

#### SECTION 11: TOXICOLOGICAL INFORMATION

#### TOXICOLOGICAL INFORMATION:

**Acute Toxicity:** No data available  
**Skin/Eye Irritation:** Skin – Rabbit: Corrosive after 3 minutes to 1 hr – 20 hr  
Eyes – Rabbit: Corrosive 7 d  
**Carcinogenicity:** **IARC:** 1-Group 1: Carcinogenic to humans (Formaldehyde)  
**NTP:** Known to be human carcinogen (Formaldehyde)  
**OSHA:** OSHA specifically regulated carcinogen (Formaldehyde)  
**ROUTES OF ENTRY:** Inhalation/Ingestion/Skin

#### SECTION 12: ECOLOGICAL INFORMATION

**ECOLOGICAL INFORMATION:** An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life

**Toxicity:** No data available  
**Persistence and degradability:** No data available  
**Mobility in soil:** No data available  
**PBT/vPvB Results:** PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

#### SECTION 13: DISPOSAL CONSIDERATIONS

**WASTE DISPOSAL METHOD:** This combustible material may be burned 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. Dispose of as unused product

#### SECTION 14: TRANSPORT INFORMATION

US DOT	IATA	IMDG/IMO
Shipping Name: Formaldehyde solutions	Shipping Name: Formaldehyde solutions	Shipping Name: FORMALDEHYDE SOLUTION
Hazard Class: 8	Hazard Class: 8	Hazard Class: 8
UN Number: 2209	UN Number: 2209	UN Number: 2209
Packing Group: III	Packing Group: III	Packing Group: III

#### SECTION 15: REGULATORY INFORMATION

<b>SARA 302</b>	50-00-0
<b>SARA 313</b>	50-00-0, 67-56-1
<b>SARA 311/312 Hazards</b>	Fire hazard, Acute Health Hazard, Chronic Health Hazard
<b>State</b>	Right to know lists: MA: 50-00-0, 67-56-1 PA: 50-00-0, 67-56-1, 7732-18-5 NJ: 50-00-0, 67-56-1, 7732-18-5 California Prop. 65 Components: 50-00-0, 67-56-1

#### SECTION 16: OTHER INFORMATION

**Disclaimer:** The information is provided without any representation or warranty, express or implied, regarding the accuracy or correctness. The conditions or methods of handling, storage, use, and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage, or expense arising out of or in any way connected with the handling, storage, use, or disposal of the product.