SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: **Formaldehyde 37% (Formalin)**

SYNONYMS: Formaldehyde solution, 36.5-38%

CATALOG CODES: VFM
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:

GHS Classification:

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 Single Exposure	(Category 1)

GHS LABEL ELEMENTS:

Pictogram:



Signal Word: Danger

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

FLAMMABLE LIMITS IN AIR: **Percentage by Volume**
Upper: 73%
Lower: 7%

FLASH POINT: 64°C (147°F) – closed cup

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

INCOMPATIBILITES: -

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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

Component	CAS-No.	Reference	OSHA		ACGIH	
			ppm	mg/m³	ppm	mg/m³
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: Carcinogenetic 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

SARA 302	50-00-0
SARA 313	50-00-0, 67-56-1
SARA 311/312 Hazards	Fire hazard, Acute Health Hazard, Chronic Health Hazard
State	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.