

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Alcoholic Formalin 10% Neutral Buffered

SYNONYMS: Alcoholic Formalin, PenFix, Alcoholic formalin solution

CATALOG CODES: VFA
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, manufacture of substances, histology/cytology reagent

RESTRICTIONS ON USE: Use as recommended

SECTION 2: HAZARD(S) IDENTIFICATION

EMERGENCY OVERVIEW:

GHS Classification:

Flammable Liquids	(Category 2)
Acute Toxicity, Oral	(Category 4)
Acute Toxicity, Dermal	(Category 5)
Acute Toxicity, Inhalation	(Category 4)
Skin Irritation	(Category 2)
Serious Eye Damage	(Category 1)
Skin Sensitisation	(Category 1)
Carcinogenicity	(Category 1A)
Specific target organ toxicity	(Category 1)
Single Exposure – CNS, Optic nerve	
Specific target organ toxicity	(Category 1)
Repeated Exposure – Kidney, Liver, Spleen	

GHS LABEL ELEMENTS:

Pictogram:



Signal Word:

Danger

Hazard Statement(s):

H225	Highly flammable liquid and vapor
H302	Harmful if swallowed
H313	May be harmful in contact with skin
H315	Causes skin irritation
H332	Harmful if inhaled
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H350	May cause cancer
H370	Causes damage to organs

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
P233	Keep container tightly closed
P240	Ground/bond container and receiving equipment
P241	Use explosion-proof electrical/ ventilating/ lighting/ equipment
P242	Use only non-sparking tools
P243	Take precautionary measures against static discharge
P260	Do not breathe dust/fume/gas/mist/vapors/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
P280	Wear protective gloves/protective clothing/eye protection/face protection

P301+P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340+P312	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell
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 advice/ attention
P310	Immediately call a POISON CENTER or doctor/ physician
P314	Get medical advice/ attention if you feel unwell
P321	Specific treatment (see supplemental first aid information on this label)
P330	Rinse mouth
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 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:	3
Physical hazards:	0

NFPA Rating:

Health hazard:	3
Fire:	3
Reactivity Hazard:	0

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT	CAS NO. EC-NO. Index-NO.
Ethyl Alcohol (60-90%)	64-17-5 200-578-6 603-002-00-5
Isopropyl Alcohol (3-6%)	67-63-0 200-661-7 603-117-00-0
Methanol (3-6%)	67-56-1 200-659-6 603-001-00-X
Formaldehyde (3-4%)	50-00-0 200-001-8 605-001-00-5

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. Consult a physician

SKIN: Immediately flush skin with plenty of soap and water. Remove contaminated clothing and shoes, wash before reuse. Consult a physician

EYE: Immediately flush eyes with plenty of water for at least 15 minutes. Consult a physician

SECTION 5: FIRE-FIGHTING MEASURES

FLAMMABLE LIMITS IN AIR: Percentage by Volume
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. Remove all sources of ignition. Take precautionary measures against static discharges. Do not get in eyes, on skin, or on clothing. Should not be released into the environment. Do not flush into surface water or sanitary sewer system. Remove all sources of ignition. Soak up with inert absorbent material. Take precautionary measures against static discharges. Keep in suitable, closed containers for disposal

SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE: Use only under a chemical fume hood. Use explosion-proof equipment. Wear personal protective equipment. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharges. Do not breathe vapors or spray mist. Do not get in eyes, on skin, or on clothing. Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition. Flammables area. Keep containers tightly closed in a cool, well-ventilated place

INCOMPATIBILITIES: Strong oxidizing agents, strong acids, peroxides

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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

Component	CAS-No.	Reference	OSHA		ACGIH	
			ppm	mg/m ³	ppm	mg/m ³
Ethanol	64-17-5		1,000	1,900	1,000	1,900
			PEL	PEL	TLV	TLV
Isopropyl Alcohol	67-63-0		400	980	200	530
			PEL	PEL	TLV	TLV
Methanol	67-56-1		200	260	200	260
			PEL	PEL	TLV	TLV
Formaldehyde	50-00-0		0.75		0.3	
			PEL		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 vapor 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 vapor 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

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
ODOR: -
pH: -
MELTING POINT: -
VAPOR PRESSURE (kPa): -

SPECIFIC GRAVITY: -
MOLECULAR WEIGHT: -
DENSITY: -
VISCOSITY: -

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: No data available

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:

Soil Release Material No data available

Air Release Material No data available

ENVIRONMENTAL TOXICITY: PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification

SECTION 14: TRANSPORT INFORMATION

US DOT	IATA	IMDG/IMO
Shipping Name: ETHANOL SOLUTION	Shipping Name: ETHANOL SOLUTION	Shipping Name: ETHANOL SOLUTION
Hazard Class: 3	Hazard Class: 3	Hazard Class: 3
UN Number: 1170	UN Number: 1170	UN Number: 1170
Packing Group: II	Packing Group: II	Packing Group: II

SECTION 15: REGULATORY INFORMATION

SARA 302	50-00-0
SARA 313	67-56-1, 67-63-0, 50-00-0
SARA 311/312 Hazards	Fire hazard, Acute Health Hazard, Chronic Health Hazard
State	Right to know lists: MA: 64-17-5, 67-63-0, 67-56-1, 50-00-0 PA: 64-17-5, 67-63-0, 67-56-1, 7732-18-5, 50-00-0 NJ: 64-17-5, 67-63-0, 67-56-1, 7732-18-5, 50-00-0 California Prop. 65 Components: 67-56-1, 50-00-0

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.